Replacing the Drum Balancer

Product

Kodak® ThermoFlex® Wide II

Background

Due to drum balancer assembly failures, balancers must either be replaced or upgraded. There are currently three versions of balancers in the field and the replacement process is different for each version. The parts and procedures for each version are detailed in the following sections.

Parts required

See *Determining the version of the drum and balancer assembly:*

Tools required

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

Procedure

The procedure consists of the following steps that are described in detail:

- Determining the version of the drum and balancer assembly
- Determining if the device has a drum hoist
- Replacing the balancers if the device has no drum hoist
- Replacing the balancers if the device has a drum hoist
- Testing the new balancer

Determining the version of the drum and balancer assembly:

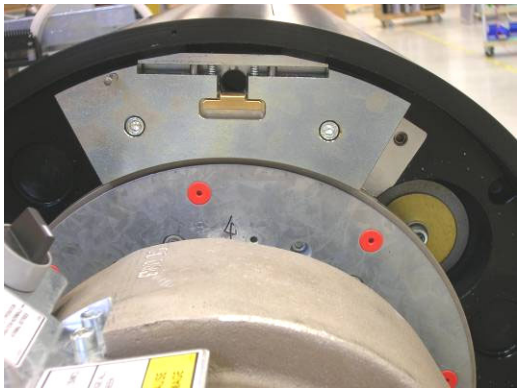
1. Use the following photos to help identify the three different versions of the balancer in the field.



Version 1



Version 2



Version 3

2. If the drum balancer is Version 1 or Version 2, it *must be upgraded* to Version 3.
3. To upgrade failed *Version 1* balancers:
   a. Order balancer core assembly 500-02142B in addition to 518-01844A.
   b. Follow the instructions in this procedure for replacing the balancer core.
   c. Follow the instructions in the FCO CA11245: Balancer Upgrade II procedure (http://techplanet.creo.com/AgileContent/Extranet/719-00800A-B109667764.pdf) for replacing the components in the kit.

4. To upgrade *Version 2* balancers:
   a. Order only the balance weight upgrade kit 518-01844A.
   b. Follow the instructions in the FCO CA11245: Balancer Upgrade II procedure (http://techplanet.creo.com/AgileContent/Extranet/719-00800A-B109667764.pdf)
      Or
      If the balancer core has been damaged, and the entire balancer must be replaced, use the same instructions as for replacing *Version 1* balancers.
5. To replace *Version 3* balancers:
   a. Order the complete balancer assembly 500-00158D plus 8 thin brake pads 252-11659A.
   b. Follow this procedure.
6. Two different versions of the drum on devices in the field require two different thicknesses of rubber pads on the new balance weight.

   To verify the drum version:

   - Look at the end of the drum on the headstock side. The serial number of the drum is imprinted there.
   - Serial numbers beginning with WS indicate newer drums that require the thick pads.
   - Serial numbers beginning with WD or WA indicate older drums that require the thin pads.
7. Use the default, thick pads generally for devices that have a serial number of WT024 and higher. These pads are installed on the new balance weights.
8. Use the thinner pads in the kit for the older style drum used generally on serial numbers WT023 and lower.
   Remove the thick pads from the new balance weight set and replace them with the thinner pads included in the kit.

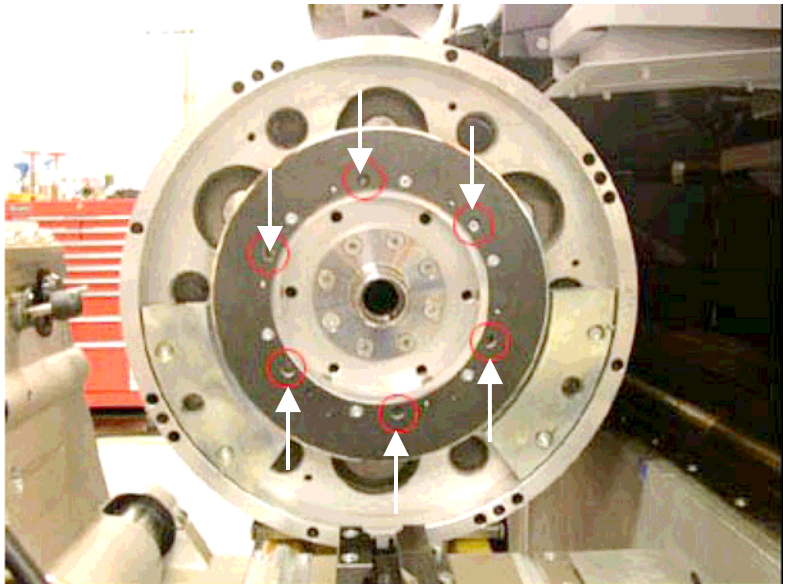
Determining if the device has a drum hoist

1. To determine if the device has a drum hoist, look into the cavity underneath the drum.
2. If a large yellow frame is visible, the device has a hoist.
   If there is no large yellow frame visible, there is no hoist.

Note: The following instructions are applicable to either installation of only the balancer core 500-02142B or the entire balancer 500-00158D.

Replacing the balancer if the device has no drum hoist:

1. For devices that have no hoist, use the Drum Service Jig and the procedure for using it at http://techplanet.creo.com/output/computer_to_plate/thermoflex_ii/nav/tools.htm plus the following steps to replace the balancer.
2. To remove the **tailstock-side** drum balancer assembly on the tailstock side of the drum, remove the six hex screws in the recessed holes.

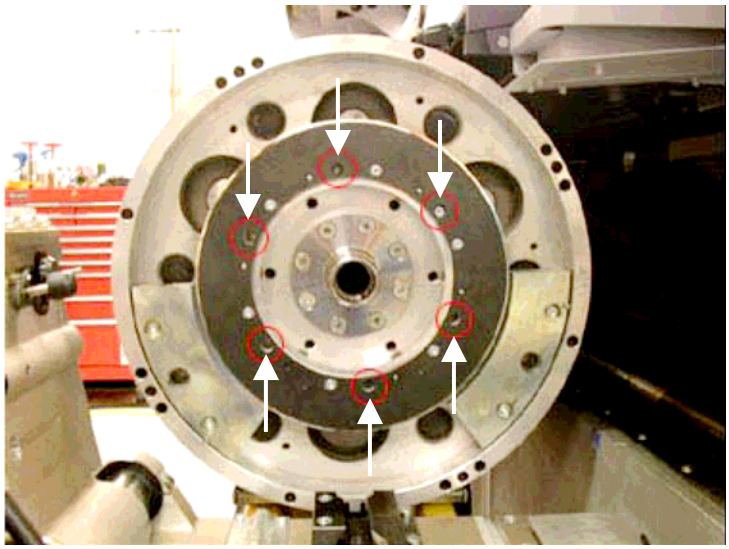


3. Pull the drum balance assembly off the drum by simultaneously pulling and rotating it.
4. Install the new drum balancer assembly.
5. Apply a small drop of Loctite® 242 to the six hex screws, and install them to hold the new drum balancer assembly in place.
6. Tighten the screws. **Note:** Do not get any Loctite on the balancer assembly.
7. Remove the six fasteners that secure the **headstock-side** drum balancer—these are the deep recessed screws.
8. Pull the drum balance assembly off the drum.
9. Install the new drum balancer assembly.
10. Apply a small drop of Loctite 242 to the six hex screws, and install them to hold the new drum balancer assembly in place.
11. Tighten the screws. **Note:** Do not get any Loctite on the balancer assembly.

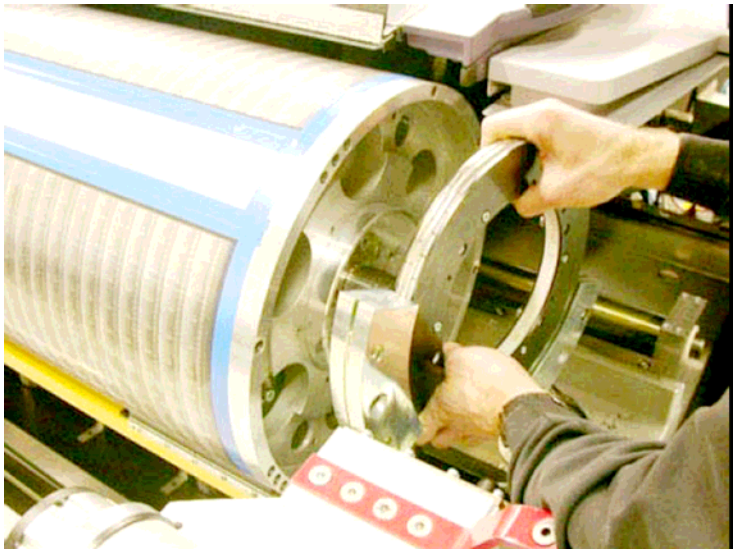
Replacing the balancer if the device has a drum hoist:

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 then 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.
5. Remove the six fasteners that secure 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 then 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.
9. Verify that the drum is supported by the hoist.
10. Type `>>tailstock unlock`.
11. 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.
12. Type `>>drumlift lever enable`.
13. Simultaneously release the spindle index pin latch, and translate the drum towards the tailstock side. The drum translation lever motion is 'lift-slide to the left-lower'.
14. Type `>>drumlift lever disable`.
15. To remove the **tailstock-side** drum balancer assembly on the tailstock side of the drum, remove the six hex screws in the recessed holes.



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



17. Install the new drum balancer assembly.
18. Apply a small drop of Loctite 242 to the six hex screws and install them to hold the new drum balancer assembly in place.
19. Tighten the screws. **Note:** Do not get any Loctite on the balancer assembly.
20. At the headstock side, slide the drum balancer assembly off the drum hub and onto the spindle outside diameter (OD).
21. 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.
22. Remove the balancer assembly from the spindle.
23. Place the new headstock side balancer assembly on the spindle OD.
24. Type `>>drumlift hoist up` and press the hoist **Up** switch to raise the drum.
25. Slide the balancer assembly back onto the drum hub.
26. Apply a small drop of Loctite 242 to the six hex screws and install them to hold the new drum balancer assembly in place.
27. Tighten the screws. **Note:** Do not get any Loctite on the balancer assembly.
28. Type `>>drumlift lever enable`.
29. Ensure the drum index pin is aligned with the spindle index hole.
30. Translate the drum towards the headstock side using the drum translation lever.
31. Type `>>drumlift lever disable`.
32. Rotate the tailstock back into position and fully insert into the drum pin.
33. Lock the tailstock by flipping the lock lever into the vertical position.
34. Type `>>tailstock lock`.
35. Type `>>drumlift hoist down` and lower the hoist.

36. Disengage the drum brake to allow access to the spindle cam locks.
37. Ensure the drum-to-spindle interface is in intimate contact (no gap).
38. Using the torque wrench, tighten the spindle cam locks in the sequence marked on the cam locks.
39. Spin the drum slowly by hand and check for interferences at the balance weight optical sensors.
40. Turn the drum brake switch to the **Brake Operation** position.
41. Close all machine panels.

Testing the new balancer:

Test multiple balancer movements for various sheet sizes using the command `>>balancer balance.` For commnd syntax help, type `>>help balancer balance`.

Material disposition	Discard defective parts.
Technical contact	John Funk
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