FCO 512-00351A
Upgrading to a one piece load roller

Document number: 719-00642A Rev B

Release date: 5th Oct 2006

Applies to

- Lotem® 800
- Lotem 800 Quantum
- Lotem Quantum Spectrum

Priority: Next visit

Component: One piece load roller

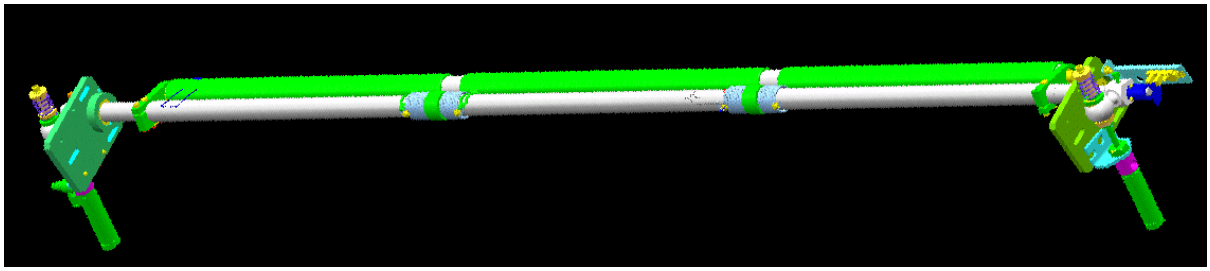
Problem

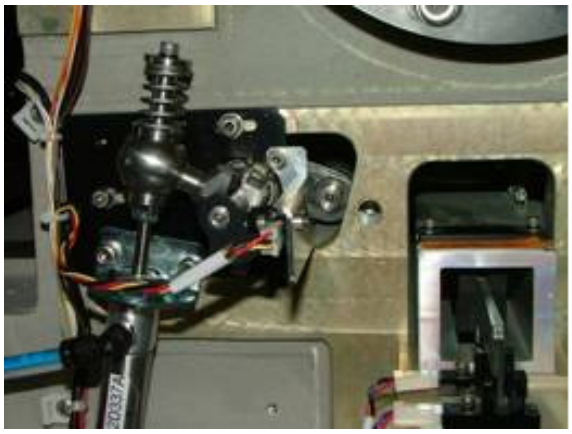
The existing load roller—which consists of eleven individual rollers—has the following problems:

- Load roller causes roller marks on the plate.
- Tool.
- Fly-offs

Solution

Upgrade the existing load roller to a one piece load roller.
Important: This procedure requires two people.







FCO 512-00351A

Time required	3.5 hours

Parts included in FCO

Part Number	Part Name	Quantity
500-03514A	Assembly one piece roller, lower	1
690-00790A	Jig press Z-bar, adjust load roller	1
690-00757A	Jig, adjust distance, load roller-tail	2
690-00789A	Jig, press lever, one piece roller	2
252-10369A	Guide	1
344D57020	Y-splitter	1
344F10131	Blue hose	1 x 4 m
719-00642A	FCO document	1
651-00548A	FCO tracker	1
258-00671A	Packaging	1

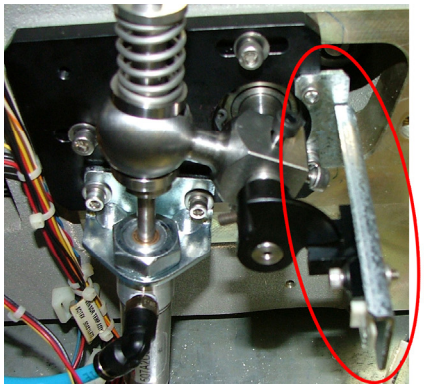
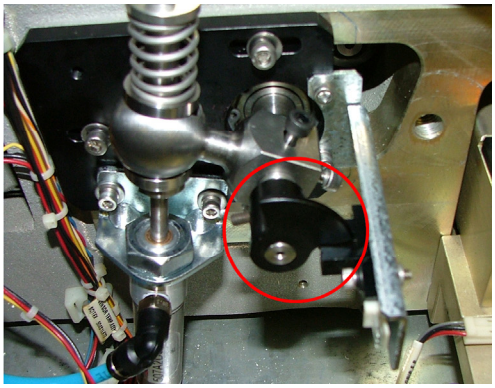
Tools required

- Loctite® 242 adhesive
- Hex keys
- Open wrenches
- Jigs

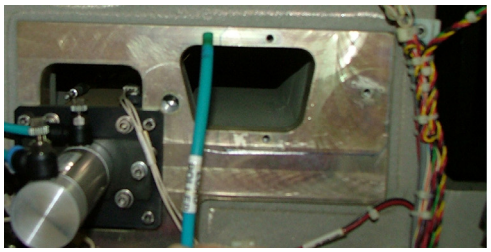
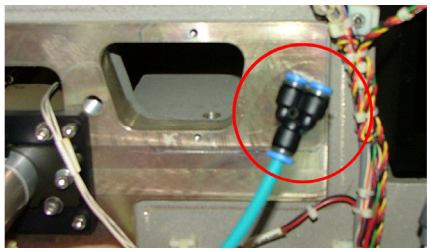
Procedure

Preparing the platesetter

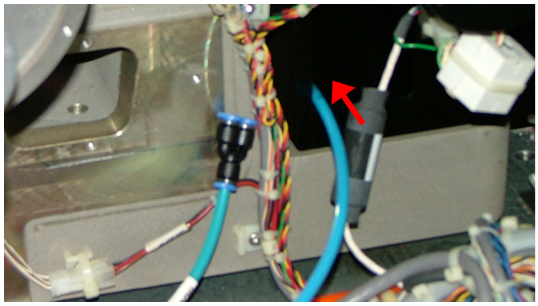
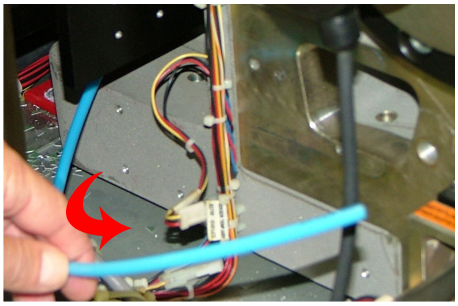
1. Open the platesetter's front cover, two side doors, and rear door.
2. Shut down the platesetter.
3. On earlier models of platesetters, remove the Local2 or Local3 board from the end position side, and if required, from the home position side.
4. Remove the existing load roller and cam, as described in the procedure **Replacing the Lower Roller Assembly**.
5. Clean the load roller chamber.
6. If required, remove the existing single-load roller home position detector assembly.

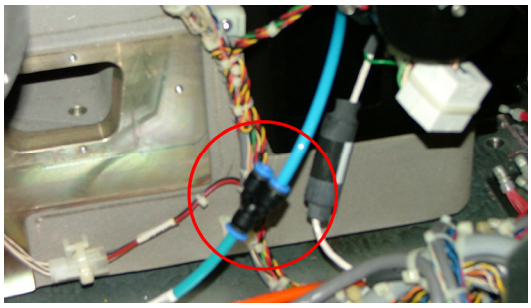
7. On the right side of the platesetter, insert a Y-splitter onto the end of the existing load roller air tube.

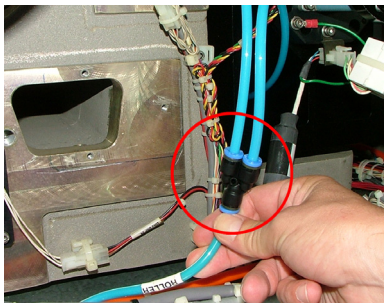
8. Cut a 2 m length of air tube (approximately the same width as the platesetter).
9. Connect the new air tube to the Y-splitter. Route the tube along the carriage V-block and continue towards the left side of the platesetter.

10. On the right side of the platesetter, connect the air tube to the Y-splitter.

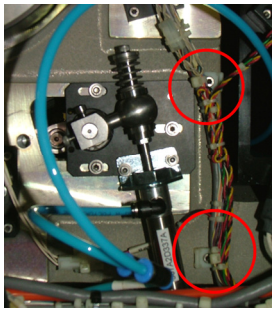


11. Cut a second 2 m length of air tube that is approximately the same width as the platesetter. To ensure an even distribution of air pressure, it is important that the two air tubes are approximately the same length (2 m).
12. Connect the new air tube to the Y-splitter. Roll up the excess tube and place it inside the carriage V-block.

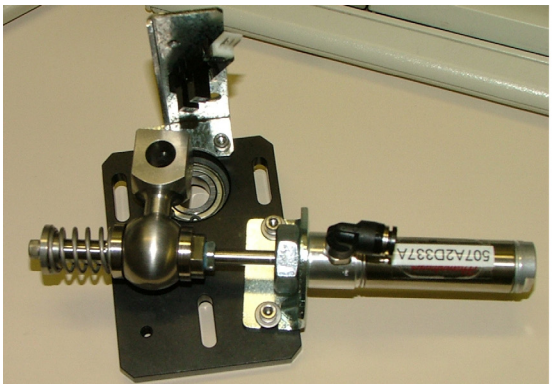


Installing the one piece load roller

1. Clear any debris and remove any obstacles from the optomech roller chamber.
2. **Note:** Only perform this step on the side of the platesetter with the least amount of side clearance.
   - Located next to the actuator flange assembly is a wire bundle. Remove the cable ties securing the wire bundle.



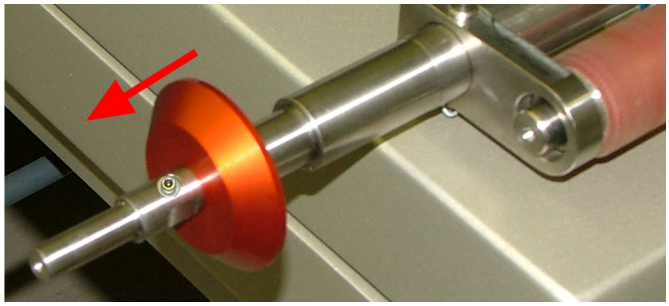
- Remove the actuator flange assembly.





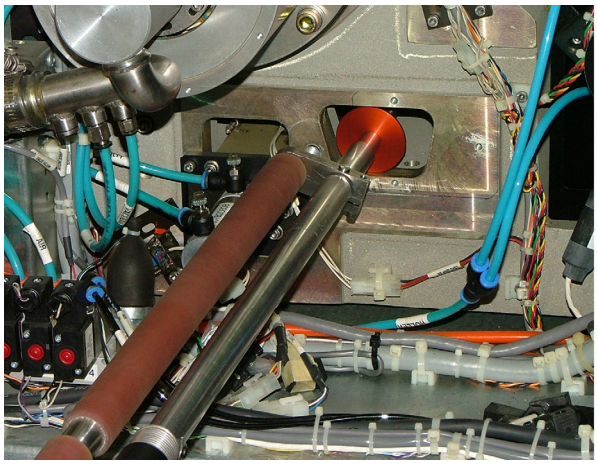
3. Clean the one piece load roller with alcohol.
4. Slide the conical-shaped jig over the end of the one piece load roller shaft. Make sure the cone of the jig is facing toward the end of the one piece load roller shaft.

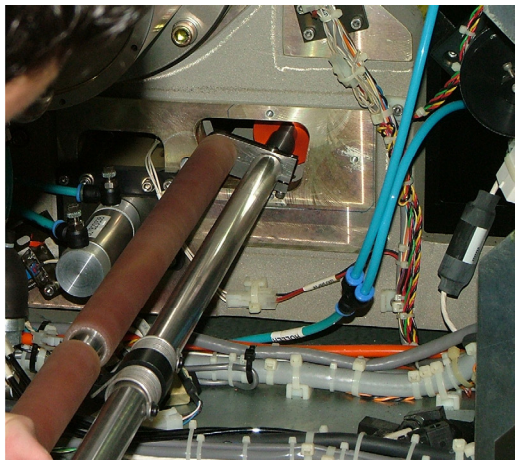




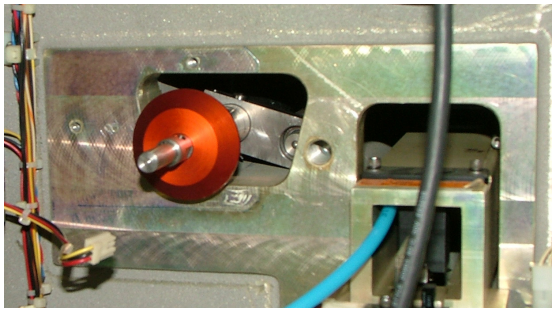
5. From the side of the platesetter with the most clearance area, slide the one piece load roller—jig end first—through the optomech roller chamber.

   Important: Make sure that the one piece load roller does not touch the walls of the chamber. Any contact with the walls may permanently damage the effectiveness of the one piece load roller.





6. A second person should be positioned on side of the platesetter with the least clearance area. Their job is to help guide the one piece load roller through the optomech roller chamber, and to make sure that the jig does not fall off.



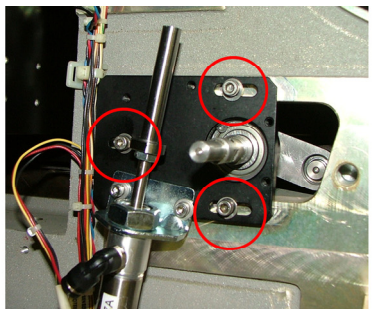
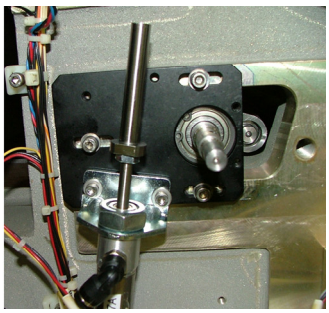
7. Remove the conical-shaped jig from the end of the one piece load roller.

Installing the actuator flange assembly

1. Disassemble the actuator flange assembly.
   Tip: Later on in this procedure, the actuator flange assembly will have to be reassembled; therefore arrange the disassemble parts in the order that they were removed.

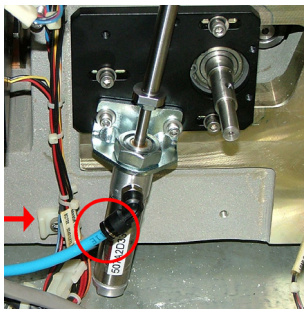


2. Use three screws to install the actuator flange assembly bracket and piston onto the one piece load roller shaft.
   Insert the three screws into the center of their oval holes, but do not tighten the screws.

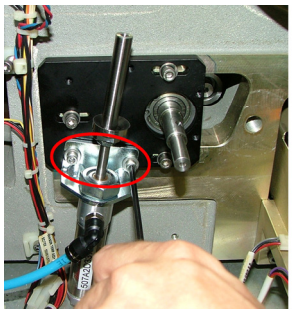




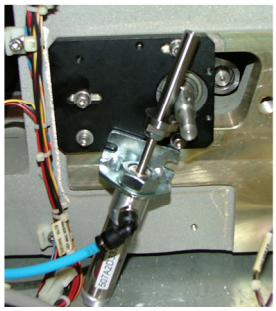
3. Connect the air tube (originating from the Y-splitter) to the actuator flange assembly.

4. Use cable ties to re-secure the wire bundle removed earlier.

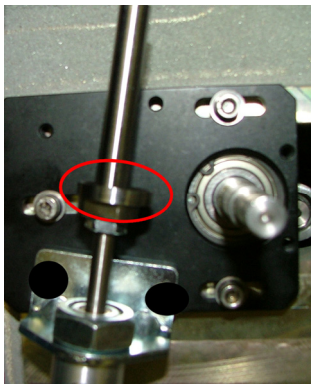


5. Remove the two screws securing the piston to the actuator flange assembly bracket.

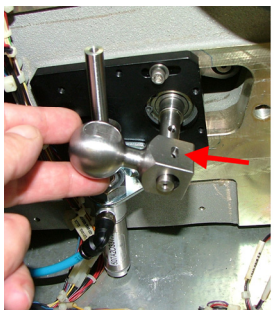
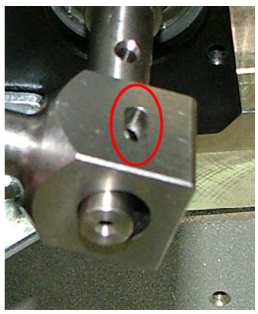
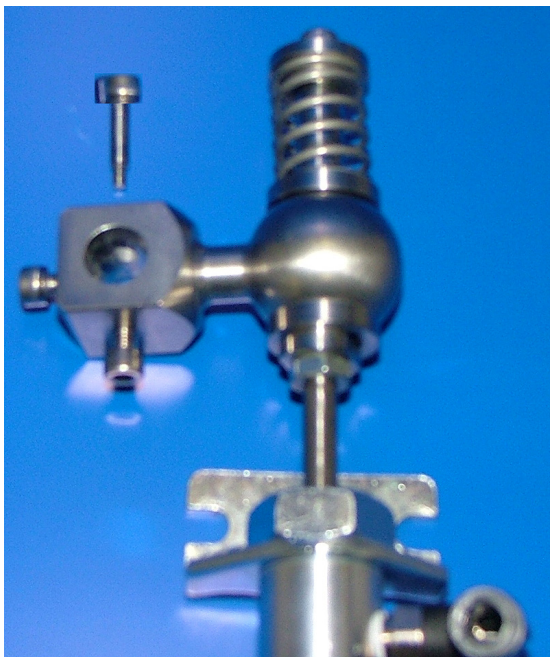




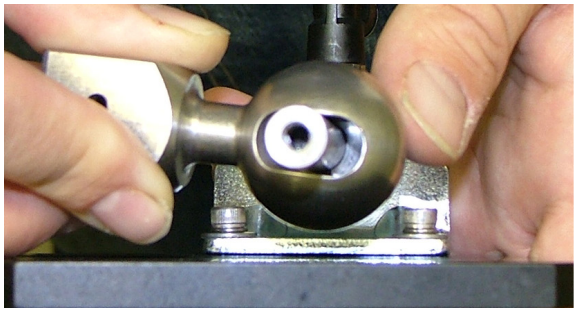
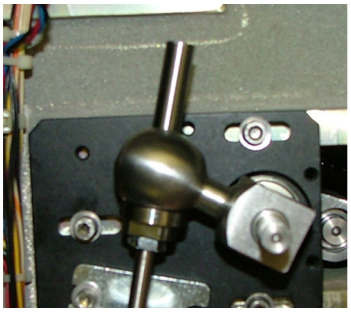
6. Install a washer—concave side up—onto the piston.



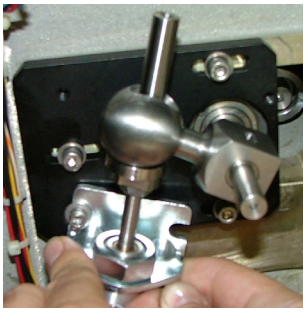
7. Install the sphere lever onto both the piston and the one piece load roller shaft.
   - Located on the top of the sphere lever is an oval hole. Make sure the oval hole is positioned face-up on the one piece load roller shaft.
     Note: If the two pistons are to be removed and one side is already adjusted, the oval opening for the screw may not be centered on one side, therefore make sure that the sphere lever is centered on both sides.

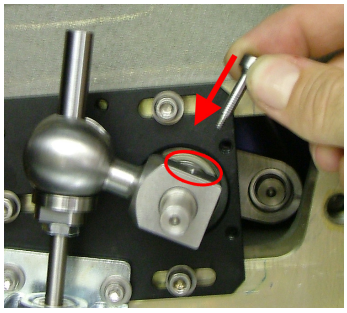
   - Angle the piston to install the sphere lever. Make sure the oval hole on the sphere lever is positioned in the center of the piston.

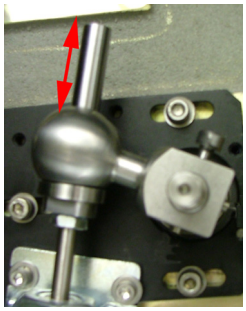
- Reinstall, but do not tighten, the two screws securing the piston to the actuator flange assembly bracket. Make sure the screws are centered in their holes.



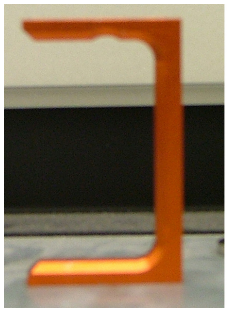
8. Insert, but do not tighten, the screw securing the sphere lever to the one piece load roller shaft.

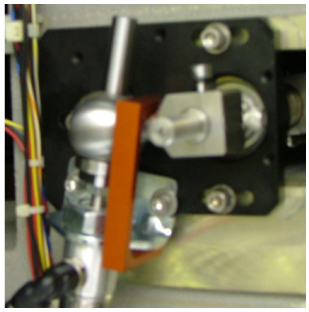


9. Make sure the piston can move in a vertical direction without touching the edges of the sphere lever.

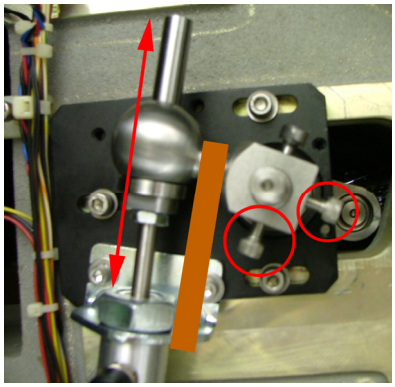


10. Use the clamp jig to secure the piston at its lowest position. The oval opening will be located on the top side.

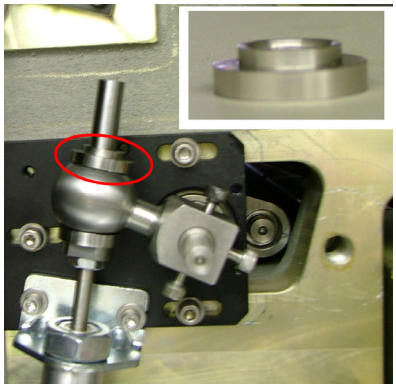




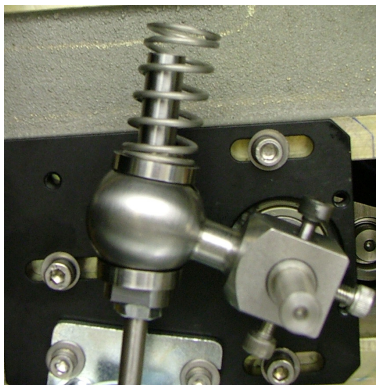
11. Insert, but do not tighten, two additional screws into the sphere lever. Make sure the piston can still move in a vertical direction without touching the edges of the sphere lever, and only then tighten the two screws.



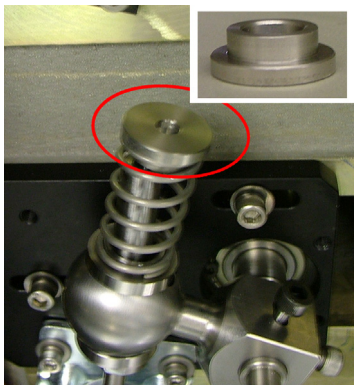
12. Remove the clamp jig.
13. Reinstall the washer, concave-side down, onto the piston.



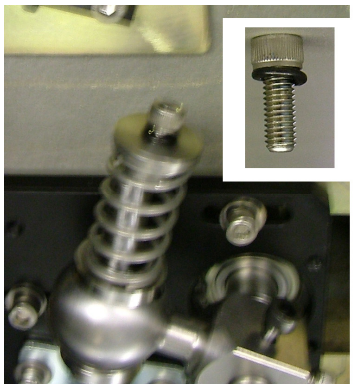
14. Reinstall the spring onto the piston.

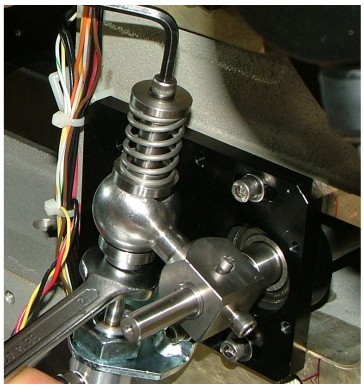


15. Reinstall the second washer onto the piston.



16. Use a hex key and an open wrench to insert and tighten the screw onto the piston.





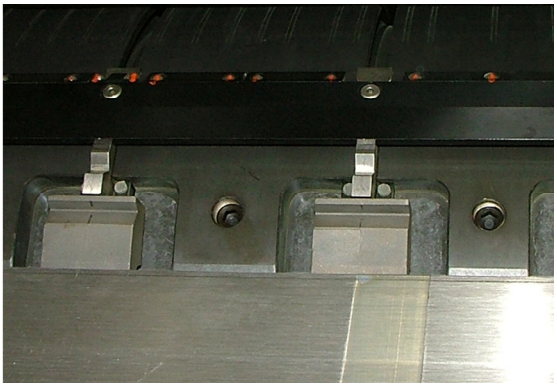
17. Tighten the two screws securing the piston to the actuator flange assembly bracket.
18. Tighten the three screws securing the actuator flange assembly to the optomech.
Important: If the two pistons were removed during the installation, repeat steps 1- 18.

Aligning the one piece load roller to the unload spoilers

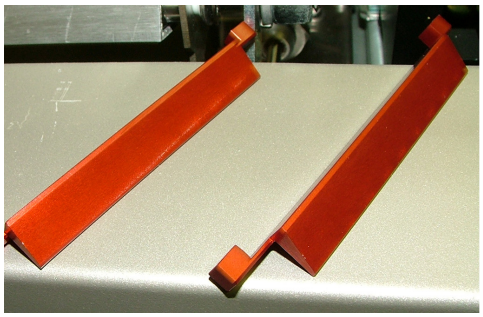
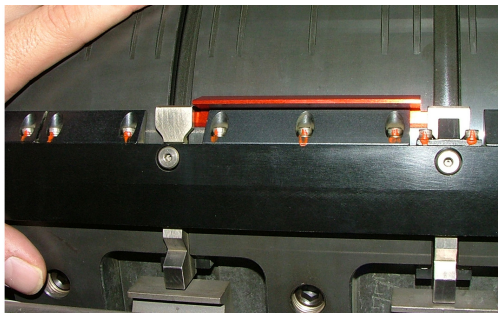
This section describes how to utilize jigs in order to make sure that a 2-mm gap is maintained along the length of the one piece load roller and the tail grippers.

1. Open the platesetter's rear cover.
2. Manually move all three unload spoilers until the tail grippers touch the head grippers.

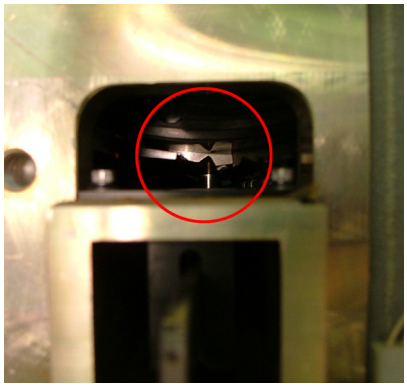




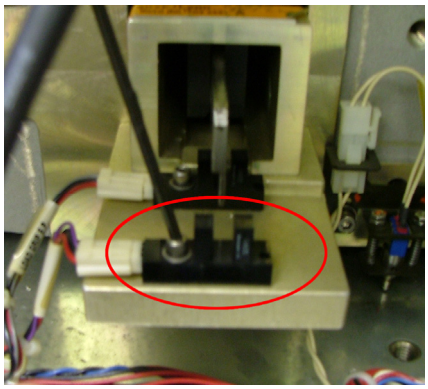
3. Press down on the two outer tail grippers' arms and insert the two wedge-shaped jigs underneath the unload spoilers.

4. Rotate the drum until the V-groove on the tail gripper is visible. Push the load actuator gripper lever until it slides into the V-groove and prevents the drum from rotating.

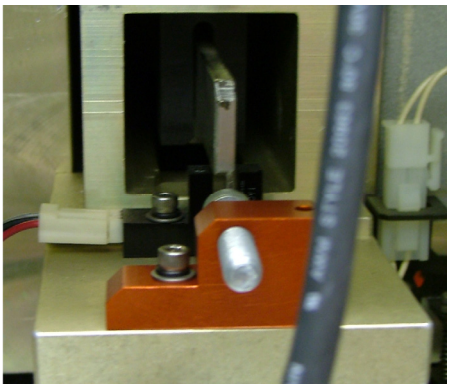


5. Remove the load gripper actuator home position detector.

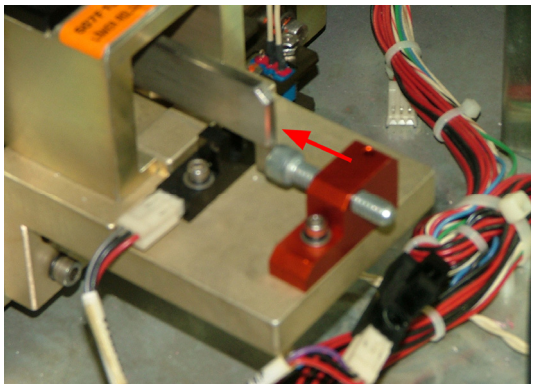


6. Install the jig in the slot vacated by the load gripper actuator home position detector.

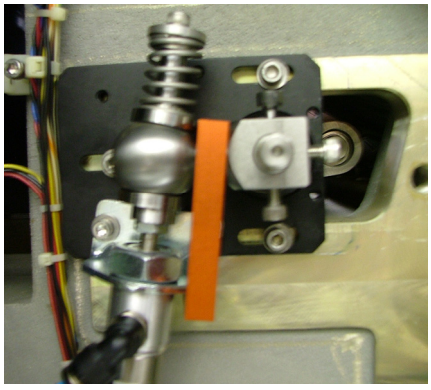




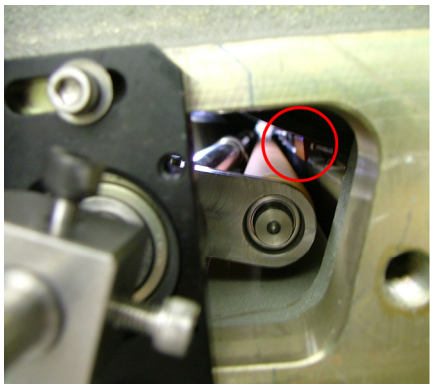
7. Rotate the screw on the jig until it touches the load gripper actuator lever. Make sure that the lever presses against the tail gripper, as this will prevent the drum from rotating while adjusting the one piece load roller.

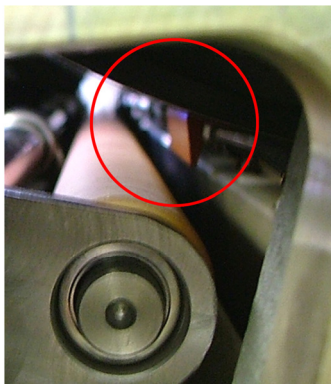


8. Install the clamp jigs onto the pistons located on either side of the platesetter.
The clamp jigs secure the pistons in their lowest position.



9. Move the actuator flange assembly forwards until the one piece load roller is touching the wedge-shaped jig.



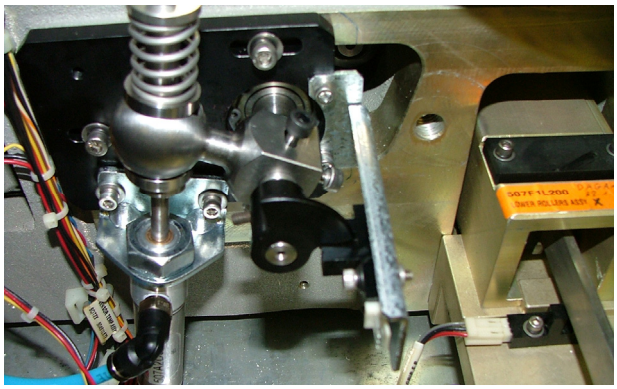


10. Check either side of the platesetter and make sure of the following:
    - One piece load roller is parallel to the drum.
    - One piece load roller is touching drum.
    - One piece load roller is touching the jig.

    If required, reposition the actuator flange assemblies until the one piece load roller is parallel to the drum, touching the drum, and touching the jig.
11. Remove the two clamp jigs.
12. Manually raise and lower the one piece load roller and make sure it moves against the jig but does not rotate the drum.
13. Remove the jig occupying the slot reserved for the load gripper actuator home position detector.

    Important: Make sure the jig is removed. Failure to remove the jig will cause serious damage to the actuator, jig and drum.
14. Retract the load gripper actuator lever, and make sure of the following:
    - Gripper actuator pins are located in their home position.
    - Drum can freely rotate.
    - One piece load roller is not touching the drum.
15. Remove the two wedge-shaped jigs from underneath the unload spoilers.
16. Reinstall the load gripper actuator home position detector.

17. If required, reinstall the one piece load roller home position detector assembly and the cam.



18. Assemble the Local2 or Local3 boards.
19. Load and unload several of the customer's plates.

Install FCO Tracker	Insert the diskette and double-click on the **reg** file, or download the file from TechPlanet's FCO page.
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