Lotem 800 - Troubleshooting

Problem: Misregistration

Problem Description:

Plate loading appears to proceed without problems. Either before or after processing, misregistration is noticed.

Note: Misregistration can occur due to the plate being improperly positioned on the drum, and/or due to carriage problems.

Error Message:

None

Machines Affected:

Lotem™ 800 (S-speed)

Lotem™ 800 (F-speed)

Lotem™ 800 Quantum

Lotem™ 800 Spectrum

Component:

Drum

Carriage

Software Products and Versions:

N/A

Operating System:

N/A

Probable Causes:

- Damaged or defective plate or plate edge
- Improper loading of plates in Cassette
- Incorrect plate definition
- Damaged Cassette components (Plate Guides or Exit Rollers)
- Machine not leveled
- XY Bar Suction Cup and/or vacuum malfunction
- Plate Support Roller malfunction
- Plate Leading Roller malfunction
- Tail Gripper and/or Spoiler malfunction
- Head Gripper malfunction
- Drum Vacuum Holes clogged

- Drum Vacuum malfunction
- Inappropriate Drum Pin size
- Loading Roller malfunction
- Wall air pressure problems
- Spiral punch problems
- Leadscrew malfunction
- Inappropriate values entered for specific parameters

Documentation Key

This document uses two graphic indicators, as follows:

✓ The check mark indicates items that need to be checked and/or verified.

⇨ The arrow indicates an action that needs to be taken. Each action pertains to the item directly above it.

Note: If at any point in the troubleshooting procedure you feel that the problem has been resolved, you can either have the customer perform plate loading, or continue to the end of the procedure.

Before the Customer calls the Response Center

There are several troubleshooting steps that the customer should complete before calling the Response Center. These steps can prevent extensive down-time and expensive service calls by enabling the customer to solve problems independently. These steps are fully explained in the section titled, "Troubleshooting Procedure". Ideally, the customer will have completed these steps before calling the Response Center, and also, reviewed the following questions and written the answers down. Either way, it is mandatory that you review the following questions with the customer, and verify whether the troubleshooting procedure was properly performed.

1) Have the customer keep any processed plates.
2) Ask the customer the following questions (record the answers):

✓ When was the last time Preventive Maintenance was performed, and by whom?

✓ When was the last time the machine worked properly?

✓ What was done since then? For example,

- Were any parts replaced on the machine?

✓ Double-check the service record to verify whether the Spiral Punch was recently replaced. If it was:

⇨ Verify whether the size of the installed Spiral Punch matches that of the Drum Pin. If it does not, see step 12.

⇨ Schedule a field service call.

- Was the machine moved?
- Was the machine cleaned?

- Was a new batch or type of plates used?
- Did plate fly-off occur (did the plate detach from the Drum during loading)?

  Note: Plate fly-off can cause one or more of the Loading Rollers to detach. See step 6 for details about checking the Loading Roller.

✓ Was an error message displayed on screen? If yes, what did it say (include numbers, if any).

✓ What is the software version?

⇨ In the PC Controller, select **Utilities > Machine Info**. The version is displayed.

✓ Do you use custom-sized plates, or cut plates to a custom size yourself?

✓ Does the problem happen all the time (with all plates), or just some of the time? For example,

- With a particular plate brand, type and/or size?
- Does the problem seem to be a random occurrence?

✓ What are the temperature and humidity levels in the plate storage room?

✓ What is the wall air pressure level? Check the gauge on the wall unit and verify that the level is not less than 6 bar, and that it is constant. If it is not:

⇨ Have the customer contact the person who is responsible for this type of maintenance in the building. If the problem persists:

⇨ Schedule a field service call.

Troubleshooting Procedure

1) Inspect the processed plate(s). Look for:

✓ Defective plate edge: May indicate manufacturer's defect, or damage that was caused to the plate during handling. Plate edges must be smooth, straight, free of burrs, folds, dents and/or emulsion. If found:

⇨ Load new, undamaged plates. If the problem persists, proceed to the next step.

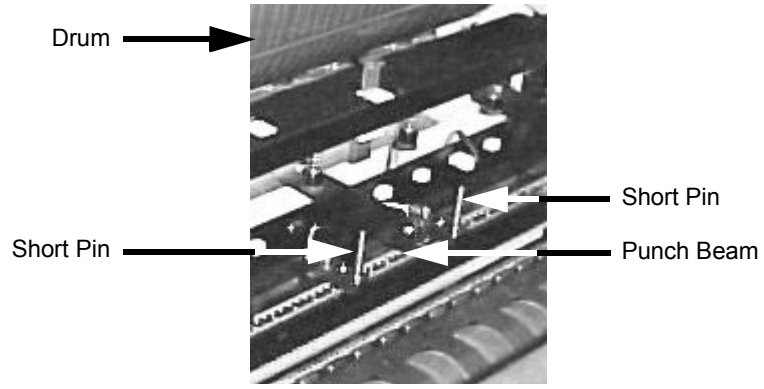
✓ Bent corners: May indicate use of a problematic plate size, or a problem with the Plate Guides in the Cassette. Either of these problems may cause the Tail Grippers to hit and bend the corner(s) of the plate during loading. If found:

⇨ Check and make note of the plate size.

Note: Measure the plate using a ruler or tape measure.

⇨ Schedule a field service call.

- ✓ Dents in the Leading Edge: If no emulsion is found on the Leading Edge:
  - ✓ Open the Front Door and visually inspect the Short Pins for dirt or debris.



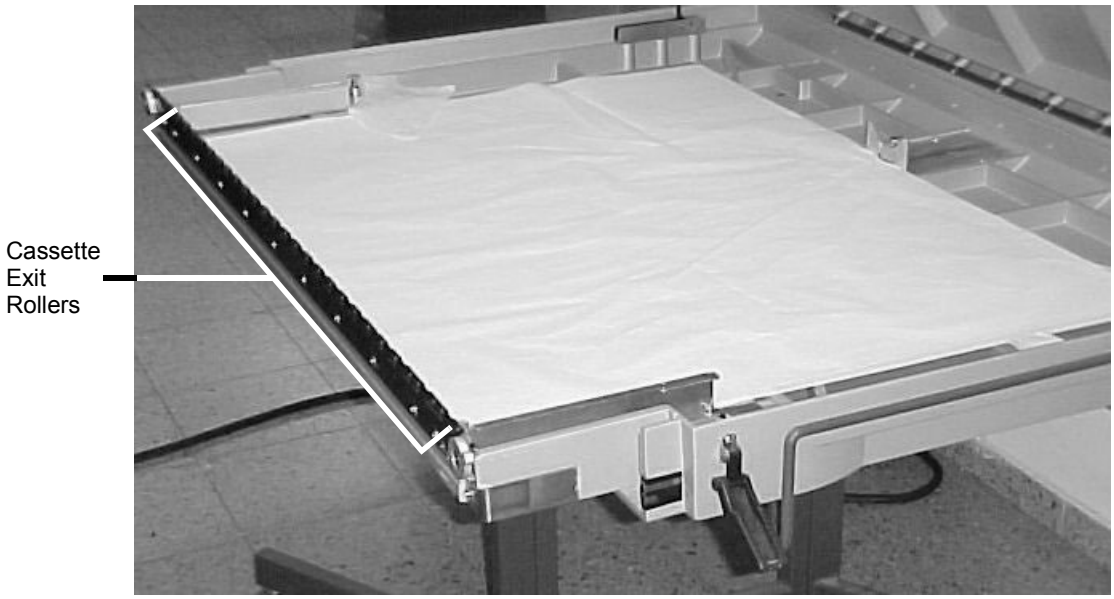
If found:

⇨ Have the customer describe the manner in which the Short Pins were cleaned. If it was not done properly, provide instructions as to the proper method, if possible. If the problem persists, schedule a field service call.

- ✓ Rough edges inside the notch: The notch should be smoothly cut. If it is not:
  - ⇨ Schedule a field service call.

2) Compare the notches in all separations of several of the most recently processed plates. Verify that:
   - ✓ All the notches are of equal depth. If they are not:
     - ⇨ Schedule a field service call.
3) Verify that the plate has been correctly defined during Cassette loading, as follows:
   - ✓ In the PC Controller, select **Settings > Plate Definitions**, and in the **Media Definition** dialog box, verify that the plates currently being loaded are correctly defined (the measured plate size must be within +/-1 mm of standard specifications). If they are not correctly defined:
     - ⇨ Have the customer modify the plate definition or create a new plate definition, as described in the user manual, and provide instructions as to the proper procedure. Perform plate loading. If the problem persists:

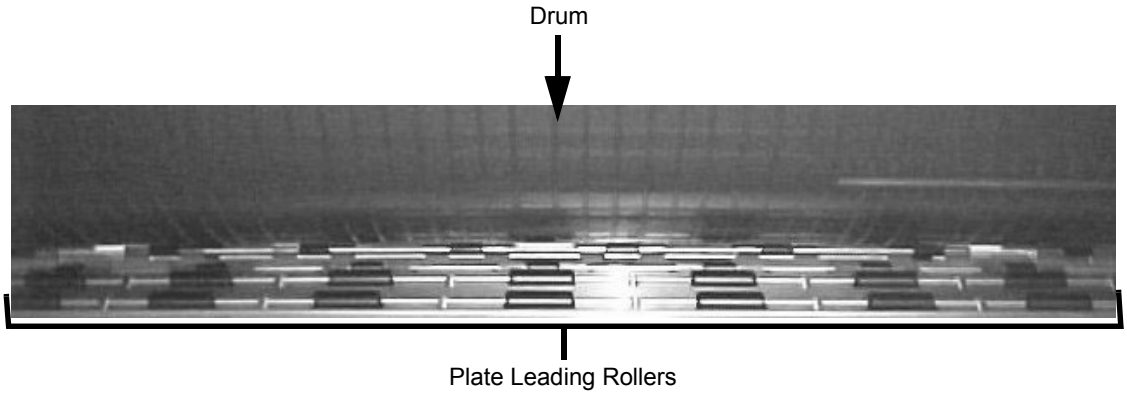
4) Check the Cassette. Verify that:
   - ✓ All the Cassette Exit Rollers (shown below) are in place, and are not damaged, bent or worn out.



   If not in place, or if damaged, bent or worn out:
   - ⇨ Schedule a field service call.
   - ✓ Plates are not partially caught under the Cassette Plate Guides. If they are:
   - ⇨ Have the customer describe the manner in which the Cassette Plate Guides were aligned. If it was not done properly, provide instructions as to the proper method, if possible. If the problem persists, schedule a field service call.
   - ✓ Plates are properly loaded and positioned in the Cassette. If they are not:
   - ⇨ Have the customer load plates into the Cassette and provide instructions as to the proper procedure.

5) Use a spirit level to verify that the machine is properly leveled. If it is not:
   - ⇨ Have the customer describe the manner in which the spirit level was used to check machine leveling. If it was not done correctly, provide instructions as to the proper method, if possible. If the machine is not properly leveled, schedule a field service call.

6) Open the Front Door, manually move the Loading System toward the Cassette and raise the XY Bar to its highest position. Inspect the suction cups. Look for:
   - ✓ Damage of any type: Place a finger under each suction cup and:
     - ✓ Inspect the edges for signs of wear, tear and/or cracking.
     - ✓ Gently press upward and look for tears and/or cracks anywhere in the rubber. If found,
       - ⇨ Schedule a field service call.
   - ✓ Debris or dirt. If found:
     - ⇨ Schedule field service call.
7) Visually inspect the Plate Support Rollers. From the front of the machine, shine a flashlight on the Plate Support Rollers and verify that:
   - ✓ All the Rollers are in place, are not damaged, and turn freely. In addition, verify that each roller's securing screw is not bent. If not in place, or if damaged, or bent:
     - ⇨ Schedule a service call.
8) Visually inspect the Plate Leading Rollers (shown below).



   Verify that:
   - ✓ All the Rollers are in place, and are not damaged, bent or worn out. If not in place, or if damaged, bent or worn out:
     - ⇨ Schedule a field service call.
9) From the rear of the machine, manually turn the Drum until the Tail Gripper is accessible. Manually move the Tail Gripper to the pre-load position (as shown in the label on the upper panel of the machine—this enables you to thoroughly inspect the drum). Verify that:
   - ✓ The Drum is clean, especially under each Tail Gripper and the Spoiler (refer to the user guide for details). If it is not clean:
     - ⇨ Clean the Drum using a lint-free cloth, especially under the Tail Gripper and Spoiler.
     - ⇨ Have the customer clean the Drum, Tail Gripper and/or Spoiler using a lint-free cloth, and provide instructions as to the proper procedure.

10) Check the date on which the Drum vacuum holes were last cleaned, and to what depth. Look for:

   ✓ Debris or dirt. If found:

      ⇨ Have the customer clean the Drum vacuum holes and provide instructions as to the proper procedure, as required. Explain why it is important to clean the vacuum holes properly (to a depth of 1 inch) and regularly.

11) From the rear of the machine, further inspect each Tail Gripper and the Spoiler. Look for:

   ✓ Debris, plate ablation and/or foreign objects, such as plate slug(s). If found:

      ⇨ Have the customer clean each Tail Gripper and the Spoiler, as follows, and provide instructions as to the proper procedure.

         • Open each Tail Gripper by pressing the V-groove on each one.

         • Remove any dirt and/or debris by passing a piece of plate back and forth under each Tail Gripper and the Spoiler, as required.

         Note: Be sure to wear protective gloves when handling the piece of plate.

12) Verify that the Spiral Punch and the Drum Pin are properly aligned to each other and of appropriate size by performing the following:

   • From the rear of the machine, manually turn the Drum until the Head Gripper is accessible.

   • Open the Head Gripper by pressing down on the Head Gripper V-groove, and locate the Drum Pin.

   ✓ Visually inspect the Head Gripper and Drum Pin for dirt, debris and/or obstruction such as slugs. If found:

      ⇨ Remove any debris and/or obstruction, and clean the Head Gripper and/or Drum Pin, as follows:

         • Pass a piece of plate back and forth under the Head Gripper, as required. In addition:

         • Use the piece of plate to dislodge and debris and/or plate ablation from the Drum Pin, as required.

         Note: Be sure to wear protective gloves when handling the piece of plate.

13) Walk the customer through the following procedure to verify that the Carriage is consistently arriving at the Home Position (HP), and that both the Course and Fine Detectors are functioning.

   • In the PC Controller, select **Utilities > Hardware**. The Hardware window is displayed.

   • In the Hardware tree, double-click **Expose System > Carriage System > Carriage Course Detector**. The Carriage Course Detector dialog box is displayed. The Course Detector status is **OFF**.

- In the Hardware tree, double-click **Carriage Fine Detector**. The Carriage Fine Detector dialog box is displayed. The Fine Detector status is **ON**.
- In the Hardware tree, double-click **Expose System > Carriage System > Carriage Motor**. The Carriage Motor dialog box is displayed.
  - Display the Operation tab, as required.
- In the Operation tab, select Home Position, and click the **Start** button. Verify that:

✓ The Course Detector status changes from **OFF** to **ON** and then to **OFF** again, and the Fine Detector Status remains **ON**. If they do not:

⇨ Schedule a field service call (inform the Field Service Engineer as to the above results).

Note: You can ask the customer if additional holes were drilled in the drum to accommodate larger plates, and/or check the machine's service record.

Before You Finish

Before disconnecting the remote service call, complete the following:

1) If you did not schedule a field service call, have the customer expose several plates of different sizes (at least three), and verify that the problem is resolved.

   Note: This is a very important cost-saving step that can prevent service visits to take care of the same problem.

2) Verify whether the customer is responsible for performing Preventive Maintenance procedures on the machine, or Creo is responsible.

   ✓ If the customer is responsible:

   ⇨ Verify that Preventive Maintenance is being performed properly and regularly. Remind the customer of the importance of performing the Preventive Maintenance procedures properly and regularly, and provide instructions, as required.

   ✓ If Creo is responsible:

   ⇨ Verify the service record, and either:

   - Schedule a service visit, or:
   - Alert the service department so that they can contact the customer and schedule the service visit.

     Note: Inform the customer as to the action taken.

See Also

Lotem 800 Plate Loading Sequence

Suggested Keywords

Carriage
Drum

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