Lotem 800 - Troubleshooting

Problem: Scratches on Plate(s)

Problem Description:

Plate loading appears to proceed without problems. Then, either before or after processing, scratches (thin, white lines) are noticed in the emulsion.

Error Message:

None

Machines Affected:

Lotem™ 800 (S-speed)

Lotem™ 800 (F-speed)

Lotem™ 800 Quantum

Lotem™ 800 Spectrum

Software Products and Versions:

N/A

Operating System:

N/A

Probable Causes:

- Processor problems
- Improper Cassette alignment
- Machine not leveled
- Cassette Exit Roller malfunction
- Plate Support Roller malfunction
- Leading Roller malfunction
- Loading Roller malfunction
- Dirt and/or debris on Drum
- 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 damaged plates.
2) Ask the customer the following questions (write down 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?
     - 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 4 in the section titled, "Random Vertical Scratches" 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?
  - Does the problem occur only with the last plate in the Cassette? If it does:
    - ✓ Verify that there is a piece of protective cardboard on the bottom of the Cassette. If there is not:
      - ⇨ Place a piece of protective cardboard on the bottom of the Cassette, load a new batch of plates into the Cassette and process several plates to verify whether the problem is solved.
- ✓ What are the temperature and humidity levels in the plate storage room?

Troubleshooting Procedure

- Inspect the damaged plate(s). Verify the appearance and direction of the scratches, and proceed as follows:
  - ✓ If scratches are found running from side to side over the full width of the plate, proceed to the section titled, Horizontal Scratches.
  - ✓ If random scratches are found leading from the Leading Edge to the Tail Edge of the plate:
    - ⇨ Proceed to the section titled, Random Vertical Scratches.
  - ✓ If random scratches are found leading, in general, from side to side:
    - ⇨ Schedule a field service call.

Horizontal Scratches

If scratches are found running from side to side over the full width of the plate, perform the following.

1) Check the chemicals currently being used in the processor. Verify that they are:
   - ✓ Compatible with the plates being processed according to manufacturer guidelines. If they are not:
     - ⇨ Replace the chemicals with a compatible brand and type.
   - ✓ Fresh. Check the expiration date on the original container. If the date has passed:
     - ⇨ Replace the chemicals with a fresh batch.

2) Visually inspect all of the processor entrance rollers. Look for:
   - ✓ Dirt, debris and/or foreign objects. If found:
     - ⇨ Remove any debris and/or foreign objects, and/or clean the entrance rollers, as required.

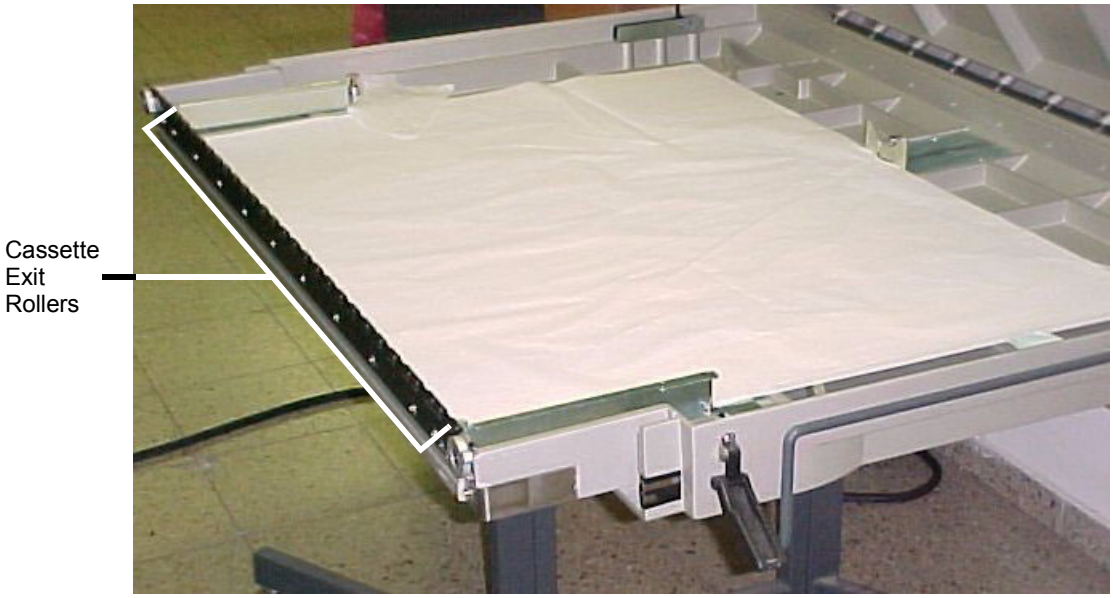
       Note: For details, refer to the user documentation for your processor.
   - ✓ Damage. If no damage is found, proceed to the next step. If damage is found:
     - ⇨ Contact the appropriate processor service representative.
3) Load, expose and unload at least one plate and inspect it before processing. If no scratches are found, process the plate. If the problem persists:
   - ⇨ Contact the appropriate processor service representative.

Random Vertical Scratches

If random scratches are found leading from the Leading Edge to the Tail Edge of the plate, perform the following.

1) Remove the Cassette from the machine, and open the Cassette. Verify that:
   - ✓ There is a piece of protective cardboard on the bottom of the Cassette. If there is not:
     - ⇨ Place a piece of protective cardboard on the bottom of the Cassette, then load and process several plates. If the problem persists, proceed to the next step.
2) Visually inspect the Cassette for foreign objects and or broken parts, as follows:
   - Remove the Cassette from the machine, and open the Cassette.
   - Hold the processed plate with the emulsion side up, and turn it so that the Leading Edge is toward the Cassette, and the Tail Edge is toward the Drum.
   - Place the plate in the Cassette and visually follow the line of the scratch(es) on the plate, from the Leading Edge (toward the back of the Cassette), toward the machine and beyond the edge of the plate. Along this line, look for foreign objects, dirt or debris or broken parts or plastic ties, as follows:

✓ Cassette Exit Rollers (shown below).



Verify that:

✓ No foreign objects, dirt and/or debris are stuck in the rollers. If found:

⇨ Remove the foreign objects, dirt and/or debris. Then, verify that:

✓ All the Cassette Exit Rollers are in place, they turn freely, and are not damaged, bent or worn out. If not in place, not turning freely, or if damaged, bent or worn out:

⇨ Schedule a field service call.

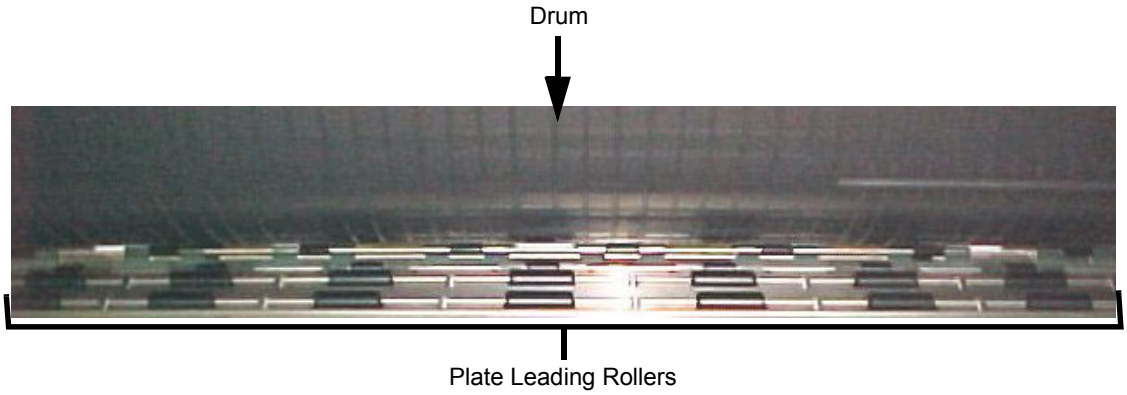
3) Open the Front Door and visually inspect the XY Bar Paper Clips (shown below) for dirt and/or signs of wear (manually raise the XY Bar, as required).



Use your finger to push the Paper Clips downward and upward in the XY Bar to verify that:

- ✓ The Paper Clips are not stuck, they open fully and do not move too freely. If the Paper Clips are stuck and/or do not open fully due to a build-up of dirt:
  - ⇨ Have the customer clean the Paper Clips, and provide instructions as to the proper procedure.
- ✓ The Paper Clips are not bent and/or worn out. Inspect the rubber covering closely to look for tears and/or foreign objects. If foreign objects are found, remove them and, if any part of one or more of the Paper Clips are bent, worn and/or torn in any way:
  - ⇨ Schedule a field service call.

4) Place the plate on the Disposal Rollers (emulsion side up, Leading Edge toward Cassette, as described in step 2), and visually follow the line of the scratch toward the Drum, beyond the plate edge. Inspect the following elements along the line of the scratch:
   - ✓ Visually inspect the Plate Support Rollers. From the front of the machine, shine a flashlight on the Plate Support Rollers (on the Punch Beam) and verify that:
     - ✓ No foreign objects, dirt and/or debris are stuck in the rollers. If found:
       - ⇨ Remove the foreign objects, dirt and/or debris. Then, verify that:
     - ✓ All the Rollers are in place, and not damaged, and turn freely. In addition, verify that each roller's securing screw is not bent. If not in place, or if damaged and/or bent:
       - ⇨ Schedule a field service call.
   - ✓ Visually inspect the Punch. Look for protruding edges of plastic ties. If found:
     - ⇨ Gently turn the plastic tie until the edge points downward.
   - ✓ Visually inspect the Plate Leading Rollers (shown below).



Verify that:

- ✓ No foreign objects, dirt and/or debris are stuck in the rollers. If found:
  - ⇨ Remove the foreign objects, dirt and/or debris. Then, 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.

✓ Have the customer inspect the Loading Rollers, as follows (walk the customer through the process):

Note: This is especially important if the customer reported that plate fly-off had previously occurred.

- Open the Rear Door.
- From the rear of the machine, shine a flashlight on the Loading Rollers.
- Run your hand over the rollers and verify that:

✓ No foreign objects, dirt and/or debris are stuck in the rollers. If found:

⇨ Remove the foreign objects, dirt and/or debris. Then, verify that:

✓ All rollers and springs are in place, turn freely and are not damaged, bent or worn out. If not in place, or if damaged, bent, worn out or not turning freely:

⇨ Schedule a field service call.

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) Check the date on which the Drum was last cleaned and inspect the Drum. Look for:

   ✓ Debris or dirt. If found:

   ⇨ Have the customer remove any debris and clean the Drum with a lint-free cloth. Provide instructions as to the proper procedure. Explain why it is important to clean the Drum properly and regularly.

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. If the problem persists:

   ⇨ Schedule a field service call.

   Note: This is a very important cost-saving step that can prevent repeat service calls 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 call, or:
   - Alert the service department so that they can contact the customer and schedule the service call.

   Note: Inform the customer as to the action taken.

See Also

Lotem 800 Plate Loading Sequence

Suggested Keywords

Vertical Scratches

Horizontal Scratches

Lines

Submitted By

Joanna Katzen, CIL

Technical Contact

Itai Peperovich