

Technical Bulletin

Please Distribute to all Sales and Service Personnel

Mettler-Toledo, Inc.

Number: MTFW-29-00
Date: 12-12-00
Model: 647 Wrapper
Subject: PM Guide

MODEL 647 PREVENTIVE MAINTENANCE (PM) CHECKLIST

To enhance customer satisfaction and reliability with less down time, each 647 wrapper is required to have a Preventive Maintenance (PM) performed every 90 days starting from the date of installation.

PM's are based on 90-day intervals from date of installation. No more than 3 PM's per year will be compensated through the warranty system (90, 180, and 270 days from the date the unit is installed). PM's can be completed within 4 weeks before or 4 weeks after this 90-day window (i.e.: the PM can be performed on day 60 through 120, 150 through 210, 240 through 300). If the PM's is not completed as per the PM schedule, warranty claims **will not** be compensated for standard coverage (labor, travel time and mileage) **until PM's are brought to current schedule.**

If a wrapper is installed several weeks before the grand opening of a store, the installation date should be reflected as the grand opening date not the installation date, if the warranty is still within the 18 months from the date of shipment.

Once the PM is completed within the above guidelines, send the CSA/PPR form along with the 647 Preventive Maintenance Checklist (647 Preventive Maintenance Checklist (form # 83236200A) is available on the Retail Resource Center Web site) to:

Mettler-Toledo
1900 Polaris Parkway
Columbus, Ohio 43240-2020
attn: Warranty Administration

A flat rate PM inspection of \$185.00 will be compensated (per all current applicable warranty policies and processes as outlined in the Warranty Policies manual 15382200A) through the Warranty Program.

If you have any questions please feel free to contact the underwriters:

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METTLER TOLEDO

MODEL 647 PREVENTIVE MAINTENANCE CHECKLIST

SAFETY WARNING

Part of this Preventive Maintenance may require power-on testing with safety guards and covers removed and safety interlocks bypassed. This will expose moving parts, sharp edges, and hot surfaces.

Maintenance must be performed only by technicians trained in proper and safe procedures. Appropriate precautions must be observed. Failure to adhere to proper safety practices and these instructions could result in serious bodily injury and/or property damage.

- Turn off and unplug the wrapper before adjusting any mechanism or movement.
- Never allow another person to operate the machine when you are exposed to moving parts.
- Be familiar with specific machine movements.
- Never put your hands or tools into machine when it is running.
- Never make adjustments to electrical switches with power on.
- Do not permit individuals wearing loose articles of clothing such as ties or loose shop coats to come near the machine while it is running.
- Do not hold anything against a moving machine part.
- It may at times be necessary to perform voltage checks to determine the proper operation of a component. It is never necessary to repair or replace a faulty electrical component with the machine plugged in.

NOTES:

- During this inspection process all worn, broken, cracked, or frayed parts should be replaced.
- For checking adjustments, tolerances, and instructions refer to the Model 647 Mega Technical Manual P/N 83166500A or the Model 647 Max Technical Manual P/N 83236400A.
- After completing these Preventive Maintenance checks, a full range of packages should be wrapped to check the machine for proper operation.
- Complete the Preventive Maintenance Customer Acknowledgment page, have the customer sign it, and return it to the Warranty Department.

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CLEANING INSTRUCTIONS

- Remove all covers and film from the machine.
- Remove all foreign objects and debris from inside the machine.
- Except as noted, thoroughly clean the following with a clean cloth dampened with hot water:

CENTER CLAMP

Clean the top and bottom of the under fold plate.

Clean film gripper and polish if necessary.

Clean/replace film gripper pad.

Open film gripper upper jaw and clean inside.

Clean center clamp skis with alcohol. Inspect for abnormal wear.

SEALING BELT

Clean sealing belt.

Clean film drive roller.

Clean the package drive rollers.

INFEED BELTS

Remove the infeed belt guard.

Clean all foreign material from the drive rollers, idler rollers, belt guides, and under the belts. Hot water and a stiff toothbrush works the best. If the belts make a squeaking noise, lightly sand the tops of the belt guides.

Clean and dry the belts.

Replace the infeed belt guard.

PHOTOEYES

Clean with a cloth dampened with hot water only. Note: Do not use paper towel on the photoeyes, because this will scratch the lens.

HEATER/BLOWER

Clean the filter screen on the blower intake with compressed air if available, or use hot water.

SIDE CLAMP FILM GRIPPERS

Clean and dry the upper and lower pads.

If the tops of the side clamps are smooth, roughen the top and sides of the grippers with a clean, dry Scotch Brite pad or 80 grit or finer sand paper. This will prevent film from sticking to the grippers. See Figure 10

LIFTER

Clean package supports and lifter arms.

Check mobile lifter arms for full range of motion and ease of movement.

TRANSFORMER

Inspect the line cord for damage.

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PRESSURE WHEELS

Clean and dry the foam wheels, replace as necessary.

FILM FOLDERS

Remove the center folder plate.

Remove any debris stuck on the film folder plates and clean them with hot water.

Check to be sure there are no missing wheels, and that all of the wheels spin freely.

Clean the film folder pressure wheels with hot water and re-install the center plate.

DISTRIBUTOR

Clean/replace distributor film clamp pad.

Clean distributor clamp plate with alcohol.

Clean the surface area between and around the distributor magnets with alcohol. Roughen this surface with a clean, dry Scotch Brite pad. This will prevent film from sticking in the distributor area.

Check film pressure roller (one way roller) for proper operation and polish if necessary.

FILM SUPPLY AND ANGLED ROLLERS

Clean each roller with alcohol. Make sure that they each turn freely, polish if necessary.

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LUBRICATION INSTRUCTIONS

Lubricate the following items with FMO350 (Food Machine Oil) Food Grade Lubricant Spray Oil Part Number 81863500A:

Infeed belt idler roller. See Figure 1
Center clamp pivot points. See Figure 2
Sealing belt bearings. See Figure 3
Distributor clamp plate pivot points. See Figure 3
Film folder wheels. See Figure 4
Center folder film roller. See Figure 4
Lifter package support (mushroom) pivot points. See Figure 5
Lifter release lever pivot points. See Figure 5
Mobile lifter arm pivot points. See Figure 5
Side clamps. See Figure 6

Lubricate the following items with CPI food grade grease type GRS-460-F, Part Number 82909400A (or equivalent.)

Side clamp bearing tracks. See Figure 6
Side clamp spring pivot points. See Figure 6
Center clamp bearing track. See Figure 2
Sealing belt drive gears. See Figure 3
Infeed drive gears. See Figure 1
Cutting channel cam and follower. See Figure 7
Rear delrin pulley assembly. Remove the belts one at a time and remove the pulleys from the belt guides. Lubricate the axle, being careful not to get any oil where the pulley contacts the belt. See Figure 1.

Note: Do not over lubricate, a thin film is all that is required. Wipe off all excess lubricant!

Lubricate the following items with Lead Screw Oil Part Number 83145200A.

Center clamp lead screw and actuator nut.
Side clamp lead screw and actuator nut.
Lifter lead screw and actuator nut.

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MECHANICAL CHECKS

Note: Refer to the 647 Tech Manual for any needed adjustments.

Check the tension and condition of all timing belts. Replace if worn or frayed.

Check for loose or sloppy timing belt pulleys. Shim if necessary. Use blue Loc-Tite on the threads of the screw.

Check the set screws on all drive motors for tightness. Retighten using blue Loc-Tite on the threads.

Check infeed belt tension. Cut to proper length and re-weld if necessary. See Tech Bulletin MTFW-04-97.

Check the center clamp holding pressure in three places (center, left, and right). Replace film gripper if necessary. See Tech Manual for replacement procedure.

Check the distributor clamp pressure in three places (center, left, and right). Use PC Pocket test 502 to energize the magnets. Adjust the distributor clamp plate if necessary. Replace the film clamp pad if worn. See the Tech Manual for replacement procedure.

Check for greater than 1mm of clearance between the center clamp folder plate and the sealing belt film drive roller. If this clearance is not sufficient the under fold plate needs to be bent up to obtain the proper clearance.

Check film bobbin assembly. Make sure that the film is centered and securely held in place. Check the Film Roll Brake for proper operation, see 647 service manual for adjustment instructions.

Check film supply dancer bars for proper operation, see 647 service manual for adjustment instructions.

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ELECTRICAL CHECKS

NOTE: Electrical checks must be made with “power on”.

Check the lifter switch and infeed safety photocells for proper operation.

Check all external guard interlocks for proper operation (top cover and side door).

Check all control switches for proper operation (E-stop button and 4 control panel buttons).

Check all indicator lights for proper operation.

Check photoeyes for proper operation. Run PC Pocket photoeye test to verify photoeye operation.

Check the Internal heater/blower for proper operation.

Clean all photo interrupt sensors

Check secondary supply voltage (52VAC)

Check sealing belt temperature. At 20, the temperature should be $135^{\circ}\text{C} \pm 10^{\circ}$.

POST PM CHECKS

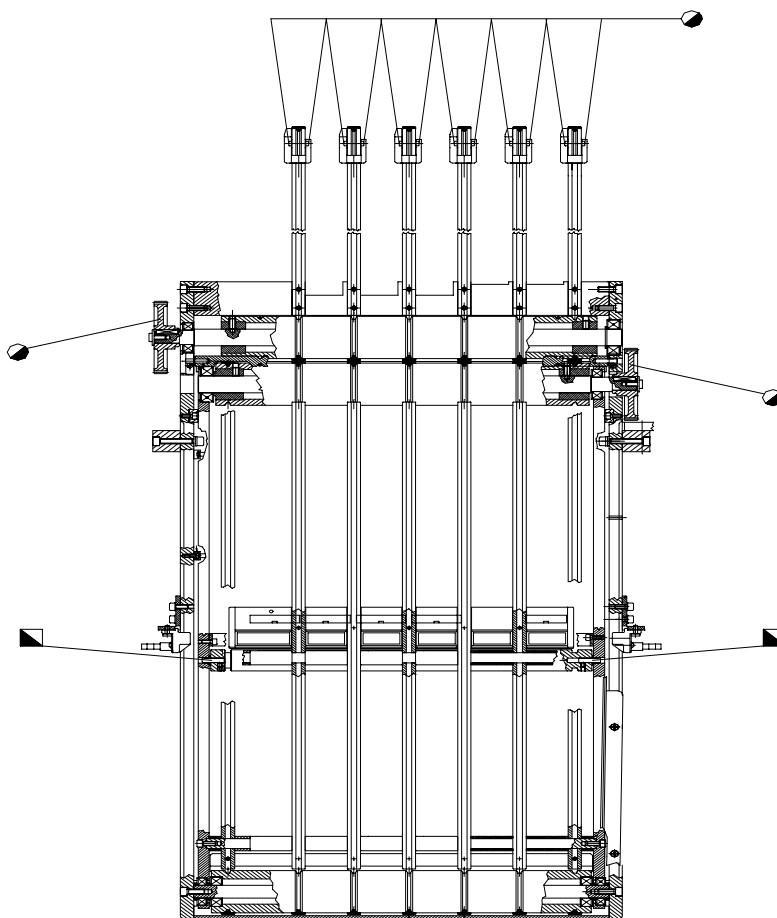
Run several packages of different sizes and confirm that they are properly sealed.

Confirm all safety labels are in place and legible.

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Lubricate with CPI GRS-460-F
Grease Part # 82909400A



Lubricate with FMO 350 Spray
Oil Part # 81863500A

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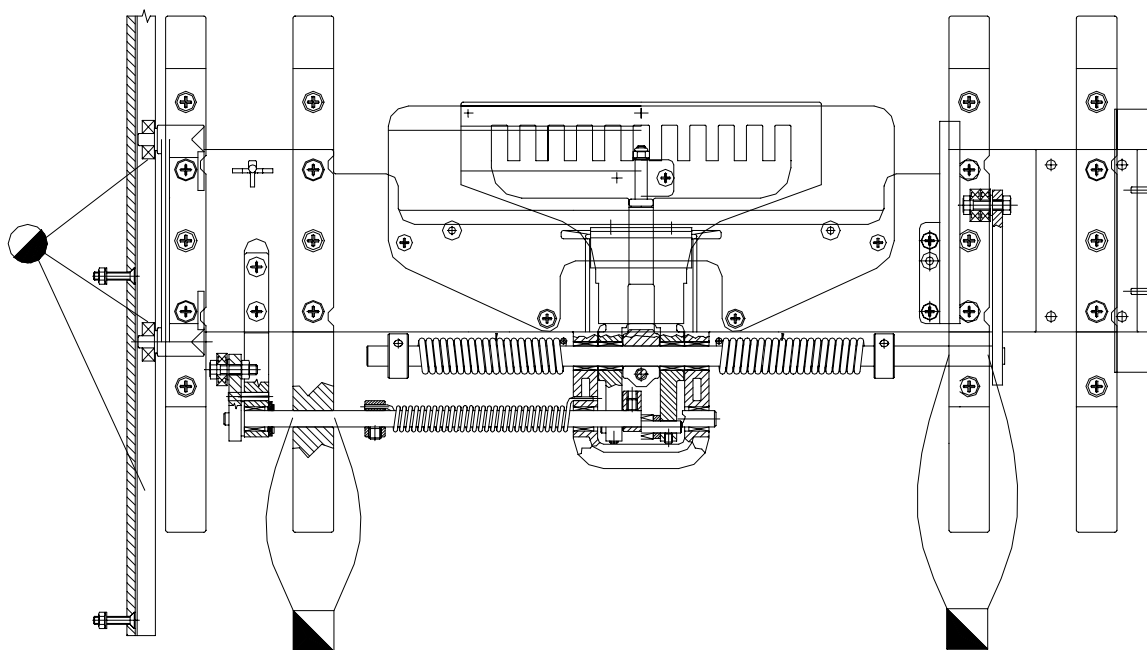


Figure 2



Lubricate with CPI GRS-460-F
Grease Part # 82909400A



Lubricate with FMO 350 Spray
Oil Part # 81863500A

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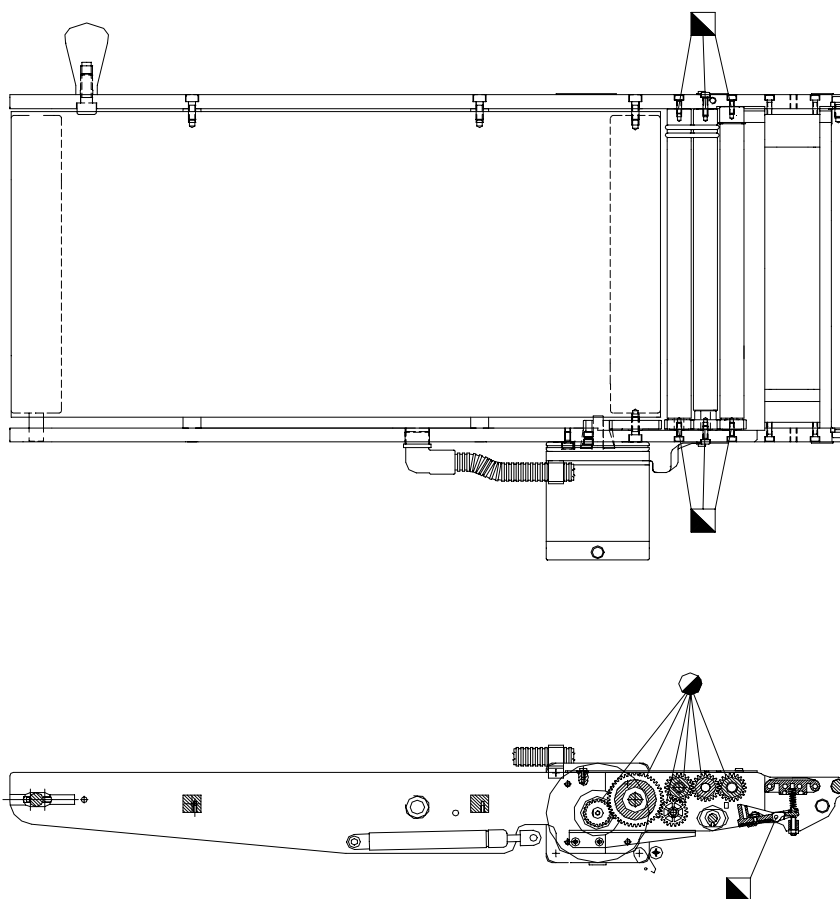


Figure 3

| | |
|--|---|
| | Lubricate with CPI GRS-460-F Grease Part # 82909400A |
| | Lubricate with FMD 350 Spray Oil Part # 81863500A |

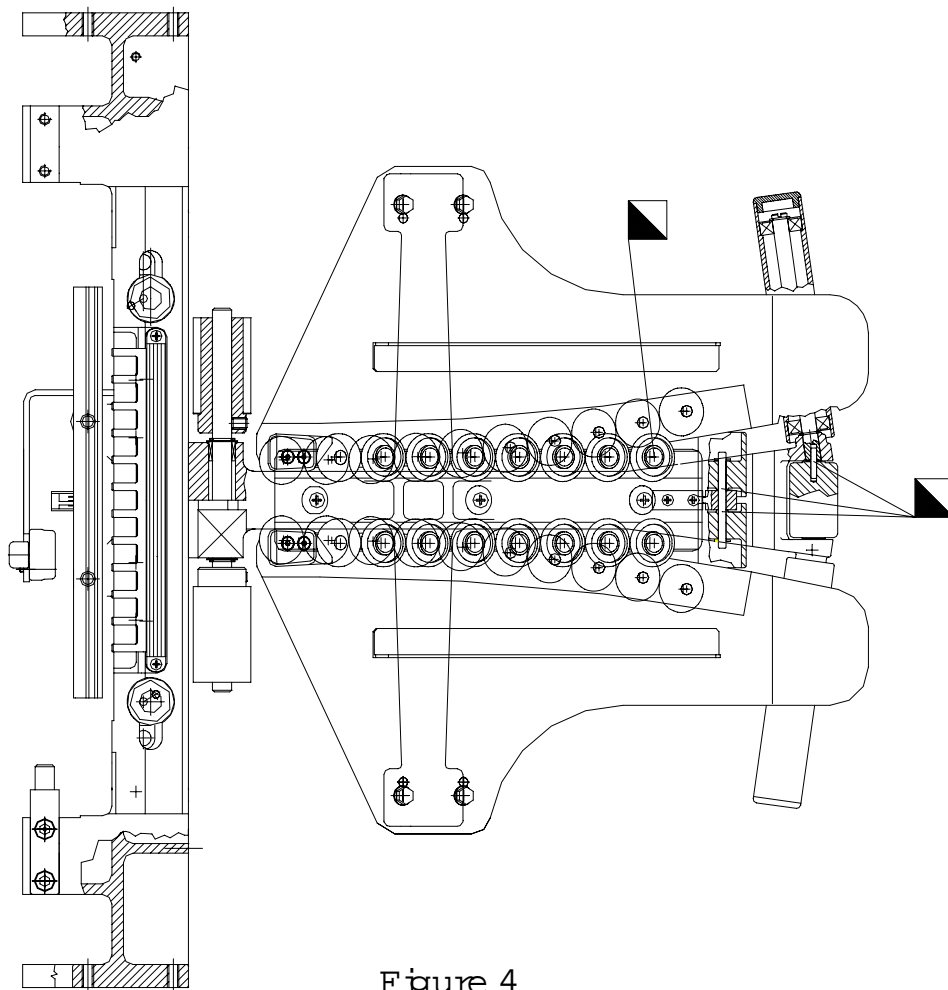


Figure 4



Lubricate with CPI GRS-460-F
Grease Part # 82909400A



Lubricate with FMD 350 Spray
Oil Part # 81863500A

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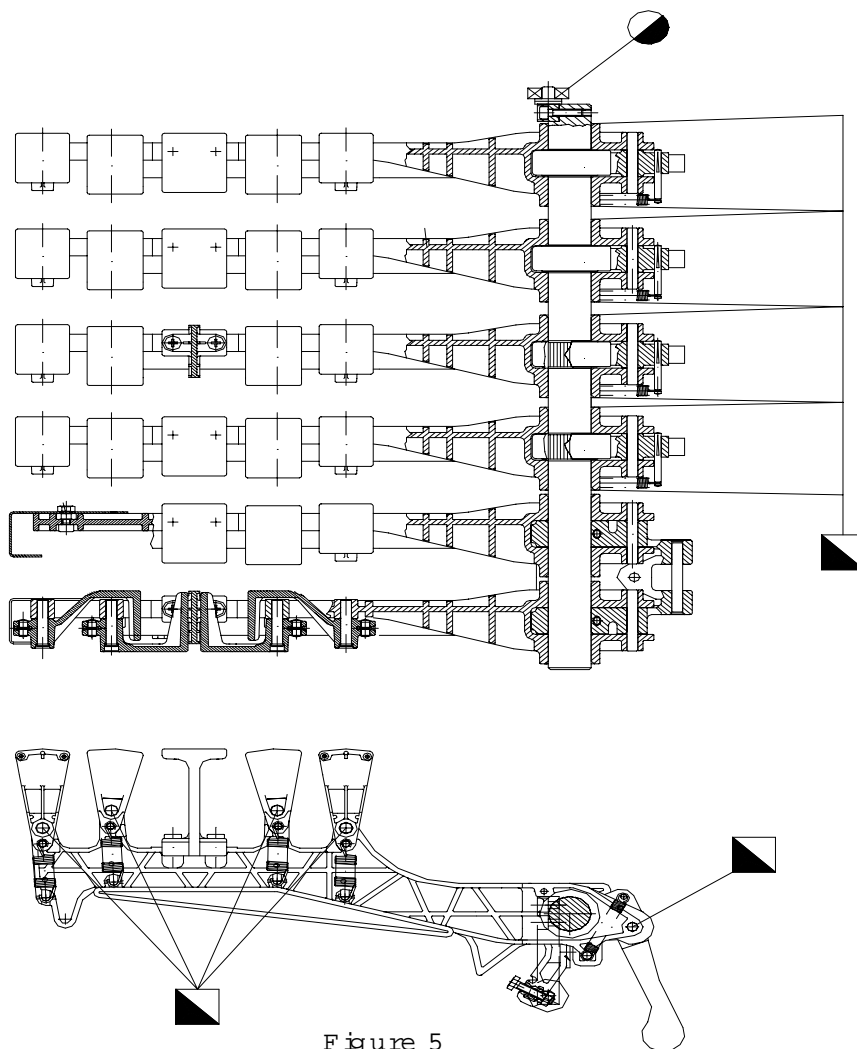


Figure 5



Lubricate with CPI GRS-460-F
Grease Part # 82909400A



Lubricate with FMD 350 Spray
Oil Part # 81863500A

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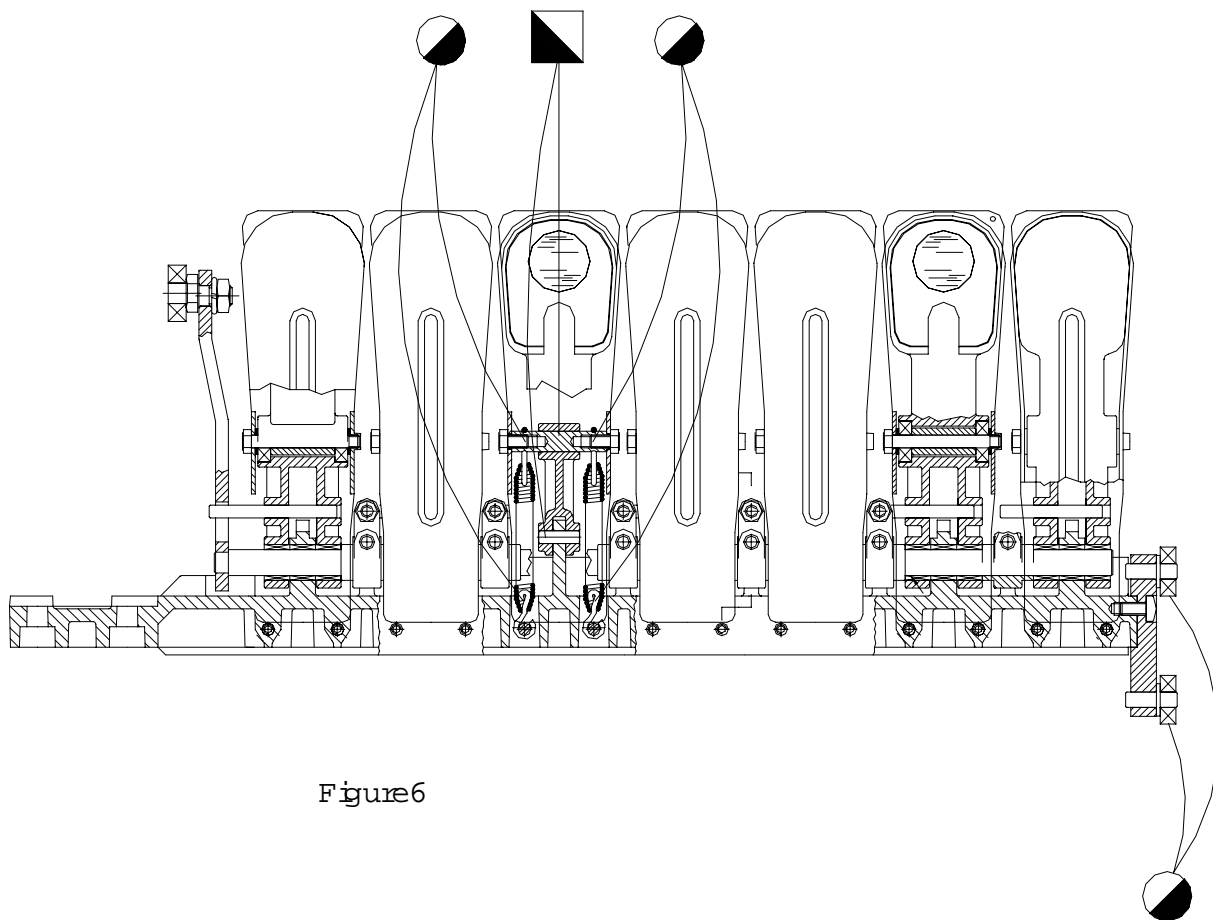




Figure 6

| | |
|---|---|
|  | Lubricate with CPI GRS-460-F Grease Part # 82909400A |
|  | Lubricate with FMD 350 Spray Oil Part # 81863500A |

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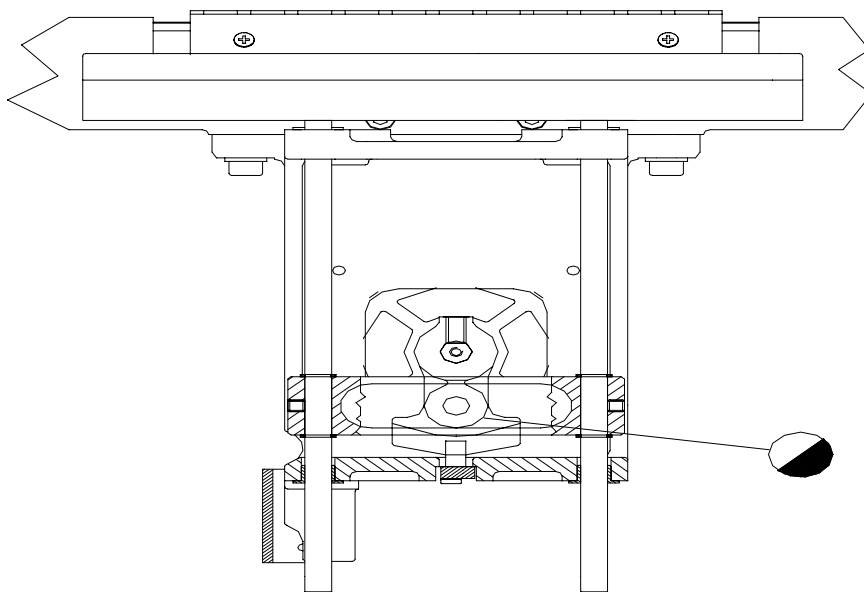


Figure 7



Lubricate with CPI GRS-460-F
Grease Part # 82909400A



Lubricate with FMD 350 Spray
Oil Part # 81863500A

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Model 647 Preventive Maintenance Customer Acknowledgment

Customer Name _____ 647 Serial# _____

Store#/Location _____ Date Of PM _____

Address _____

City/State _____ Zip _____

Technician Name (Please Print) _____

Condition Of Equipment: Excellent ☐ Good ☐ Fair ☐ Poor ☐ Abused ☐

Time Spent On PM _____

Customer Name _____ Customer Signature _____
Please Print

Customer Comments: _____

Packs from last statistical reset _____

Using PC Pocket, retrieve the error statistics. Fill in the quantity for each error listed below.

If there are 0 errors you can leave it blank.

| | | | | | | | | | |
|------|--|------|--|------|--|------|--|------|--|
| W10 | | E007 | | E215 | | E323 | | E708 | |
| W66 | | E008 | | E216 | | E338 | | E709 | |
| W67 | | E011 | | E223 | | E339 | | E710 | |
| W80 | | E012 | | E301 | | E401 | | E711 | |
| W81 | | E015 | | E302 | | E402 | | E712 | |
| W82 | | E092 | | E303 | | E501 | | E713 | |
| W83 | | E093 | | E304 | | E502 | | E714 | |
| W89 | | E094 | | E307 | | E503 | | E715 | |
| W90 | | E095 | | E308 | | E504 | | E716 | |
| W91 | | E099 | | E309 | | E602 | | E717 | |
| W92 | | E183 | | E310 | | E603 | | E718 | |
| W93 | | E201 | | E311 | | E604 | | E719 | |
| W94 | | E202 | | E312 | | E605 | | E720 | |
| W95 | | E203 | | E313 | | E606 | | E721 | |
| W96 | | E204 | | E314 | | E611 | | E722 | |
| W97 | | E207 | | E315 | | E621 | | E723 | |
| W98 | | E208 | | E316 | | E624 | | E801 | |
| W99 | | E209 | | E317 | | E628 | | E802 | |
| E000 | | E210 | | E318 | | E701 | | E803 | |
| E001 | | E211 | | E319 | | E702 | | | |
| E002 | | E212 | | E320 | | E703 | | | |
| E004 | | E213 | | E321 | | E704 | | | |
| E006 | | E214 | | E322 | | E707 | | | |

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Total package count _____

Note: Read this value off of the digital counter mounted inside the side door or mounted at the top of the electrical rack.

Perform test 703 to reset the number of packages run since the last PM.

Technician Comments:

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.