## MAINTENANCE TECHNICAL SUPPORT CENTER HEADQUARTERS MAINTENANCE OPERATIONS UNITED STATES POSTAL SERVICE

# Maintenance Management Order UNITED STATES POSTAL SERVICET N

SUBJECT: Tray Sorting Machine Novasort Preventive DATE: February 28, 2014

Maintenance

**NO:** MMO-041-14

TO: All Novasort TMS Sites FILE CODE: TM

tpor:mm13050ab

This Maintenance Management Order (MMO) provides Operational and Preventive Maintenance Guidelines for the Tray Sorting Machine Novasort. Include the following phrase in the first paragraph: This bulletin applies to Acronym TSM, Class Code CA.

The workhours indicated in the workload estimate (Attachment 1) reflect the *maximum* annual workhours required to maintain each system. Actual workhour requirements and the frequency of tasks are dependent on run time and pieces processed. Therefore, PM workhour requirements will vary day-to-day based on site specific machine utilization. Management may modify task frequencies to address local conditions.

The minimum maintenance skill level required to perform each task is included in the Minimum Skill Level column of each checklist. This does not preclude higher level employees from performing any of this work.

Preventive Maintenance (PM) guidelines provide maintenance employees with the recommended task based maintenance activities. The Electronic Conditioned Based Maintenance (eCBM) is an abbreviated task list that represents a portion of the PM checklist. The complete master PM checklist must be accessible to all maintenance employees when performing PM and eCBM task based maintenance activities.

## WARNING

Various products requiring Material Safety Data Sheets (MSDS) may be utilized during the performance of the procedures in this bulletin. Ensure the current MSDS for each product used is on file and available to all employees. When reordering such a product, it is suggested that current MSDS be requested. Refer to MSDS for appropriate personal protective equipment.

Web Access: http://mtsc.usps.gov

## WARNING

The use of compressed or blown air is prohibited. An alternative cleaning method such as a HEPA filtered vacuum cleaner, a damp rag, lint-free cloth, or brush must be used in place of compressed or blown air.

#### WARNING

Steps contained in this bulletin may require the use of Personal Protective Equipment (PPE). Refer to the current Electrical Work Plan (EWP) MMO for appropriate PPE requirements.

For questions or comments concerning this bulletin contact the MTSC HelpDesk, either online at MTSC>HELPDESK>Create/Update Tickets or call (800) 366-4123.

Robert E. Albert

Manager

Maintenance Technical Support Center

**HQ** Maintenance Operations

- Attachments 1. Summary of Workload Estimate
  - 2. Master Checklist 03-TSM-CA-001-M Monthly PM

## **ATTACHMENT 1**

## **SUMMARY**

## **WORKLOAD ESTIMATE**

## FOR TRAY SORTING MACHINE NOVASORT

Attachment 1 i

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ii Attachment 1

## SUMMARY WORKLOAD ESTIMATE FOR TRAY SORTING MACHINE NOVASORT

| Operation | Routine<br>Servicing<br>(hrs/yr) | Repair*<br>(hrs/yr) | Routine<br>Servicing +<br>Repair<br>Time<br>(hrs/yr) | Non-<br>productive<br>Time**<br>(hrs/yr) | Total<br>Servicing<br>Per<br>Machine<br>(hrs/yr) |
|-----------|----------------------------------|---------------------|--|--|--|
|           |                                  |                     |  |  |  |
|           |                                  |                     |  |  |  |

#### NOTES:

- \*Repair estimates based on 30% of servicing.
- \*\*Based on 10% of total servicing and repair.

#### NOTE

Since this equipment contains multiple units of unknown quantity, the workload estimate cannot be provided in a traditional roll-up table. For this guideline, the annual work hours are derived from local site specific entries made in an electronic Work Hour Estimator Program (eWHEP) worksheet. Refer to eWHEP for further guidance.

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## **ATTACHMENT 2**

## TRAY SORTING MACHINE NOVASORT MASTER CHECKLIST

03-TSM-CA-001-M

MONTHLY

10 minutes per NovaSort Loop Plus 3 minutes per 5 feet of rail

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| U.S. Postal Service                                  | IDENTIFICATION |          |       |                      |   |  |  |   |                        |  |               |   |        |   |      |    |
|--|----------------|----------|-------|----------------------|---|--|--|---|------------------------|--|---------------|---|--------|---|------|----|
| Maintenance Checklist                                | _              | RK<br>DE |       | EQUIPMENT<br>ACRONYM |   |  |  |   |                        |  | CLASS<br>CODE |   | NUMBER |   | TYPE |    |
|  | 0              | 3        | Т     | S                    | М |  |  |   |                        |  | O             | Α | 0      | 0 | 1    | М  |
| Equipment Nomenclature TRAY SORTING MACHINE NOVASORT | Equ            | ipmeı    | nt Mo | del                  |   |  |  | E | Bulletin<br><b>m</b> ı |  | name<br>050ac |   | Occurr |   | NTH  | LY |

| Part or<br>Component | Item<br>No | Task Statement and Instruction (Comply with all current safety precautions) | Est.<br>Time | Min.<br>Skill |              | Threshold              | s     |
|----------------------|------------|---|--------------|---------------|--------------|------------------------|-------|
| Component            |            | (Gomply with all carrent carety procedure)                                  | Req<br>(min) | Lev           | Run<br>Hours | Pieces<br>Fed<br>(000) | Freq. |

| [0.5===\(\)           |    |  |   |     |  |  |
|-----------------------|----|--|---|-----|--|--|
| SAFETY<br>STATEMENT   | 1. | COMPLY WITH ALL SAFETY PRECAUTIONS.  Disconnect power and apply lockouts when required by this instruction. Refer to current local lockout procedures to properly shutdown and lockout this machine. Open equipment and inspect dust conditions.  Check for suspicious dust or unusual debris. If any unusual substance is found notify supervisor prior to proceeding with any further action on the equipment. | 3 | All |  |  |
|                       |    | THE USE OF COMPRESSED OR BLOWN AIR IS PROHIBITED.  |   |     |  |  |
|                       |    | When cleaning is required, an alternative cleaning method such as a HEPA filtered vacuum cleaner or a damp rag must be used in place of compressed or blown air. A lint-free cloth or brush may be used on optical equipment only when other cleaning methods cannot be used. Report safety deficiencies to your supervisor immediately upon detection.  |   |     |  |  |
|                       |    | WARNING FOR EWP/PPE:   |   |     |  |  |
|                       |    | Steps contained in this bulletin may require the use of Personal Protective Equipment (PPE). Refer to the current Electrical Work Plan (EWP) MMO for appropriate PPE requirements.   |   |     |  |  |
| POWER                 | 2. | Lockout Power.   | 2 | All |  |  |
| DISTRIBUTION<br>PANEL |    | Lockout electrical power to the NovaSort loop by placing the disconnect lever, on the master power distribution panel, in the "OFF" position and install a LOCKOUT/TAGOUT device.  |   |     |  |  |

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| Maintenance Checklist                                |                | RK<br>DE |   |   | _ |  | MENT<br>NYM | - |                                | CLASS<br>CODE |   | NUMBER |                       | TYPE |   |
|  | 0              | 3        | Т | S | М |  |             |   |                                | С             | Α | 0      | 0                     | 1    | М |
| Equipment Nomenclature TRAY SORTING MACHINE NOVASORT | Equipmer       |          |   |   |   |  |             |   | Bulletin Filename<br>mm13050ac |               |   |        | Occurrence<br>MONTHLY |      |   |

| Time<br>Req<br>(min) | Req Le | Skill Run<br>Hours | Pieces<br>Fed<br>(000) | Freq. |
|----------------------|--------|--------------------|------------------------|-------|
| 5ft. of              |        | _                  |                        |       |
| Tall                 |        | 9                  |                        |       |
|                      |        |                    |                        |       |

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|--|-----------------------------|-------|-----|---|--|--|----|--------------------|-----------------|---|------|---------------|----------|----|
| Maintenance Checklist                                | WORK EQUIPMENT CODE ACRONYM |       |     |   |  |  |    | CLASS<br>CODE      |                 |   |      | NUME          | TYPE     |    |
|  | 0 3                         | Т     | S   | М |  |  |    |                    | С               | Α | C    | 0             | 1        | M  |
| Equipment Nomenclature TRAY SORTING MACHINE NOVASORT | Equipmer                    | nt Mo | del |   |  |  | Bu | ulletin Fil<br>mm1 | ename<br>3050ac | ; | Occi | irrence<br>MC | e<br>NTH | LY |

| Part or           | Item | Est.<br>Time   | Min.<br>Skill  |     |              |                        |       |  |  |
|-------------------|------|--|----------------|-----|--------------|------------------------|-------|--|--|
| Component         | No   | (Comply with all current safety precautions)   | Req<br>(min)   | Lev | Run<br>Hours | Pieces<br>Fed<br>(000) | Freq. |  |  |
| DUCTO             |      |  |                |     | 1            |                        |       |  |  |
| PHOTO<br>SENSORS  | 4.   | Clean And Inspect Track Photo Sensors And Reflectors.  | 2 per<br>5 ft. | 9   |              |                        |       |  |  |
| AND<br>REFLECTORS |      | <ol> <li>Check to ensure the photo sensors and<br/>associated reflectors are securely fastened<br/>and not visibly damaged.</li> </ol>   | of rail        |     |              |                        |       |  |  |
|                   |      | 2. Ensure all electrical connections are tight.  |                |     |              |                        |       |  |  |
|                   |      | WARNING  |                |     |              |                        |       |  |  |
|                   |      | Discard or dispose of chemical soaked materials in accordance with MSDS and local procedures.  |                |     |              |                        |       |  |  |
|                   |      | Using a damp cloth clean the sensor exterior, emitter window and associated reflector.   |                |     |              |                        |       |  |  |
|                   |      | Ensure that the photo sensors and associated reflectors are properly aligned.  |                |     |              |                        |       |  |  |
|                   |      | WARNING  |                |     |              |                        |       |  |  |
|                   |      | Be cautious when working around or on equipment when power has been applied.   |                |     |              |                        |       |  |  |
|                   | 5.   | Restore Equipment To Service.  | 2              | All |              |                        |       |  |  |
|                   |      | Restore electrical power to the NovaSort loop by removing your LOCKOUT/TAGOUT device and placing the disconnect lever on the master power distribution panel in the "ON" position. |                |     |              |                        |       |  |  |
|                   | 6.   | Clean-Up.  | 3              | All |              |                        |       |  |  |
|                   |      | Ensure all tools, lubricants, rags, ect., are removed from the work area. Report all deficiencies to your supervisor.  |                |     |              |                        |       |  |  |