

# maintenance management order

**SUBJECT:** PM Guidelines for Towveyor (Main Loop),  
Type A (Linkbelt)

**DATE:** July 14, 1998

**NO:** MMO-041-98

**TO:** Bulk Mail Centers

**FILE CODE:** Y

dewa:M94138AC

Online Change Record		
Change #	Date	Description of Change
2	4/22/2022	Attachment 2, corrected skill level 4, no longer in use, to level 7.
1	5/15/2013	This bulletin has been updated to reflect changes to the Attachment 1 Summary. The times have been updated to reflect accurate rollup times using the standard two decimal place rounding.

This Maintenance Management Order (MMO) provides Preventive Maintenance (PM) guidelines for Towveyor (Main Loop), Type A (Linkbelt) and supersedes Maintenance Checklist BO67.

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

## WARNING

**Various products which require 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 by all employees. When reordering such a product, it is suggested that a current MSDS be requested.**

The workhours represented in this MMO reflect the maximum workhours required to maintain the equipment. Given local conditions, management may modify task frequencies.

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

Rex M. Gallaher  
Manager  
Maintenance Technical Support Center  
Maintenance Policies and Programs

Attachments: 1. Summary of Revised Workload Estimate  
2. Towveyor (Main Loop), Type A (Linkbelt) Master Checklist



**ATTACHMENT 1****-SUMMARY-****REVISED WORKLOAD ESTIMATE****FOR****TOWVEYOR (MAIN LOOP), TYPE A (LINKBELT)**

Routine Servicing (hrs/yr)	Repair* (hrs/yr)	Total Servicing & Repair Time (hrs/yr)	Nonproductive Time ** (hrs/yr)	Total Servicing Per Machine (hrs/yr)
29.48	8.84	38.32	3.83	42.17

\* Repair estimates based on 30% of servicing.

\*\* Based on 10% of total servicing and repair.

**TIME TOTALS**

<u>Monthly Time Total:</u>	1.90 Hrs. ***
<u>Quarterly Time Total:</u>	0.95 Hrs. ***
<u>Annual Time Total:</u>	0.22 Hrs. ***
<u>Bi-Annual Time Total:</u>	1.29 Hrs. ***

**NOTE**

The time shown does not allow for multiple assemblies on any equipment. Should multiple assemblies exist, the time must be modified at the local level to account for those occurrences. Other unique site conditions that requires additional time are to be addressed at the local level.

\*\*\* These times are provided for data entry for the MARS System.

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**ATTACHMENT 2****TOWVEYOR (MAIN LOOP), TYPE A (LINKBELT) MASTER CHECKLIST**

03-TOWVE-LA-001-M

The "Part or Component" column for each step on the Master Checklist provides a "Frequency Code" designation followed by a letter or series of letters. These letters correspond to the frequency codes as published in MS-63 and specify the frequency for which that instruction (step) must be performed. These frequency codes are in compliance with NMICS superseding route structure. The possible frequencies and their codes are given in the table below:

**Table 2-1. MS-63 (NMICS) Frequency-Codes**

<b><u>CODE</u></b>	<b><u>FREQUENCY</u></b>	<b><u>DESCRIPTION</u></b>
A	ANNUAL	Once every 13 APs.
B	BI-WEEKLY	Once every 2 weeks
C	BI-MONTHLY	Once every 2 APs.
D	DAILY	Once a day; 7 days a week.
E	DAILY	Once a day; 6 days a week.
F	DAILY	Once a day; 5 days a week.
G	DAILY	Once a day; 4 days a week.
H	DAILY	Once a day; 3 days a week.
J	SEMI-WEEKLY	2 days a week.
K	BI-ANNUAL	Once every 2 years.
L	TRI-ANNUAL	Once every 3 years.
M	MONTHLY	Once every AP.
N	QUAD-ANNUAL	Once every 4 years.
P	QUINT-ANNUAL	Once every 5 years.
Q	QUARTERLY	4 times every 13 APs.
S	SEMI-ANNUAL	Twice every 13 AP.
T	TOURLY	3 times a day; 7 days a week.
U	TOURLY	Twice a day; 7 days a week.
V	TOURLY	3 times a day; 6 days a week.
W	WEEKLY	Once a week.
X	TOURLY	Twice a day; 6 days a week.
Y	TOURLY	3 times a day; 5 days a week.
Z	TOURLY	Twice a day; 5 days a week.

U.S. Postal Service <b>Maintenance Checklist</b>	IDENTIFICATION											
	Work Code		Equipment Acronym				Class Code		Number		Type	
	0	3	T	O	W	V	E	L	A	0	0	1
Equipment Nomenclature <b>TOWVEYOR (MAIN LOOP), TYPE A</b>			Equipment Model <b>LINKBELT</b>			Bulletin Filename <b>M94138AC</b>			Frequency <b>ALL</b>			

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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SAFETY STATEMENT	1.	<b>COMPLY WITH ALL SAFETY PRECAUTIONS. - Disconnect power and activate lockouts as appropriate while working on this equipment. Where air pressure is required for cleaning, use a low air pressure (30 psi or less) air source. Eye protection (goggles or face shield) must be used when utilizing compressed air for cleaning. Check to ensure all employees are clear of the machine. Report safety deficiencies to your supervisor immediately upon detection.</b>	3 min	All
Frequency Code: -M-Q----A-K				
AA-1	2.	<b>CHECK FOR MAIL. - Look for loose mail while performing activities.</b>	2.5 min	7
Frequency Code: -M-Q----A-				
CH-1 TOW PIN CHAIN	3.	<b>CHECK MAIN LOOP TOWVEYOR CHAIN. - With equipment operating, check main loop towveyor chain for excessive slack by looking to see if chain telescopes more than 10 feet beyond drive.</b>	2 min	7
Frequency Code: M-Q----A-				

**WARNING**

**Eye protection (goggles or face shield) must be worn when using compressed air for cleaning.**

Frequency Code: M-Q----A-	4.	<b>CLEAN CHAIN. - With equipment operating, clean chain as follows:</b>	1 min/ 10 ft.	7
		1. Clean chain with compressed air on slack side of drive sprocket. Run chain at least one (1) complete cycle.		
		2. Remove foreign material by blowing or vacuuming.		
CH-1	5.	<b>CHAIN LUBRICATION - Manually turn on chain</b>	0.22	7

U.S. Postal Service  <b>Maintenance Checklist</b>		IDENTIFICATION										
		Work Code		Equipment Acronym			Class Code	Number		Type		
		<b>0</b>	<b>3</b>	<b>T</b>	<b>O</b>	<b>W</b>	<b>V</b>	<b>E</b>	<b>L</b>	<b>A</b>	<b>0</b>	<b>0</b>
Equipment Nomenclature <b>TOWVEYOR (MAIN LOOP), TYPE A</b>		Equipment Model <b>LINKBELT</b>			Bulletin Filename <b>M94138AC</b>			Frequency <b>ALL</b>				

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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TOWPIN lubricator. Make at least two (2) complete cycles before min/  
CHAIN (Cont.) turning the automatic lubricator off. 10ft.

Frequency  
Code:  
-M-Q----A

Frequency 6. **CHECK MOTOR DRIVE AMMETER.** - With equipment 1 7  
Code: operating, check motor drive ammeter in the MSP. If min/  
-M-Q----A- reading exceeds normal by 10%, flow a thin stream of 20 ft.  
GL-1 around entire track.

SYSTEM 7. **POWER DOWN AND LOCKOUT POWER.** - Power 2.5 7  
Frequency down the equipment and lockout its electrical power as min/  
Code: prescribed by the procedures contained in, or locally Drive  
-M-Q----A-K developed in accordance with, the current Maintenance  
Management Order (MMO) providing lockout/restore  
procedures.

Frequency 8. **REMOVE COVER PLATES.** - Remove cover plates. 20 7  
Code: Erect barricades around open pit. min  
-M-Q----A-K

U.S. Postal Service <b>Maintenance Checklist</b>	IDENTIFICATION											
	Work Code		Equipment Acronym			Class Code	Number		Type			
	0	3	T	O	W	V	E	L	A	0	0	1
Equipment Nomenclature <b>TOWVEYOR (MAIN LOOP), TYPE A</b>				Equipment Model <b>LINKBELT</b>			Bulletin Filename <b>M94138AC</b>		Frequency <b>ALL</b>			

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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**WARNING**

**Eye protection (goggles or face shield) must be worn when using compressed air for cleaning.**

**WARNING**

**Discard solvent soaked materials according to local procedures to prevent spontaneous combustion.**

DA-1 CATER- PILLAR DRIVE ASS'Y	9.	<b>CHECK MOTOR AND REDUCER HOUSINGS.</b> - With disconnect locked out, check motor and reducer housings for evidence of lubrication leakage.	5	7
			min/	
			Drive	

Frequency  
Code:  
M-Q----A-

Frequency Code: M-Q----A-	10.	<b>CLEAN AND CHECK MOTOR AND REDUCER EXTERIOR.</b> - Clean and check motor and reducer exterior as follows:	2	7
			min/	
			Drive	

1. Remove dust and foreign material from motor and reducer exterior.

2. Check to make sure vent holes are not plugged.

Frequency Code: ----Q----A-	11.	<b>CHECK OIL LEVEL.</b> - With unit warm from running, check oil level in reducer. Refill, if required, to proper level with GL-7.	1	7
			min/	
			Drive	

Frequency Code:	12.	<b>CHECK AND CLEAN V-BELTS AND SHEAVES.</b> - Check and clean V-belts and sheaves as follows:	1	7
			min/	



U.S. Postal Service  <b>Maintenance Checklist</b>	IDENTIFICATION											
	Work Code		Equipment Acronym				Class Code		Number		Type	
	0	3	T	O	W	V	E	L	A	0	0	1
Equipment Nomenclature <b>TOWVEYOR (MAIN LOOP), TYPE A</b>				Equipment Model <b>LINKBELT</b>			Bulletin Filename <b>M94138AC</b>			Frequency <b>ALL</b>		

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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----Q----A-

Drive

1. Clean foreign material from belts and sheaves by wiping with clean rags.
2. Check V-belts and sheaves for wear and alignment.
3. Check sheave set screws and belt tension.

**WARNING**

**Discard solvent soaked materials according to local procedures to prevent spontaneous combustion.**

DA-1  
CATER-  
PILLAR  
DRIVE ASS'Y  
(Cont.)

13. **CLEAN AND CHECK SPROCKETS.** - Clean and check sprockets as follows:
1. Clean sprockets with solvent and rags.
  2. Check sprockets for wear and alignment.
  3. Wrench test all set screws.

5 7  
min/  
Drive

Frequency Code:  
----Q----A-

**WARNING**

**Eye protection (goggles or face shield) must be worn when using compressed air for cleaning.**

Frequency Code:  
----Q----A-

14. **CLEAN AND LUBRICATE CATERPILLAR CHAIN.** - Clean and lubricate caterpillar chain as follows:
1. Clean caterpillar chain by brushing on solvent and blow or wipe dry.
  2. Relubricate with GL-1.
  3. Wipe up excess.

3 7  
min/  
Drive

DA-1

15. **CLEAN AND LUBRICATE BACKUP AND TAKE-UP**

15 7

U.S. Postal Service <b>Maintenance Checklist</b>	IDENTIFICATION											
	Work Code		Equipment Acronym				Class Code		Number		Type	
	0	3	T	O	W	V	E	L	A	0	0	1
Equipment Nomenclature <b>TOWVEYOR (MAIN LOOP), TYPE A</b>			Equipment Model <b>LINKBELT</b>			Bulletin Filename <b>M94138AC</b>			Frequency <b>ALL</b>			

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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CATER- PILLAR DRIVE ASS'Y (Cont.)	<b>BARS.</b> - Clean and lubricate backup and take-up bars as follows:	min/ Drive	
Frequency Code: ----Q----A-	<ol style="list-style-type: none"> <li>1. Clean backup and take-up bars by wiping.</li> <li>2. Remove hardened deposits with solvent.</li> <li>3. Relubricate by brushing on GL-2.</li> <li>4. Wipe up excess.</li> </ol>		
Frequency Code: ----Q----A-	16. <b>CHECK CATERPILLAR DRIVE CHAIN.</b> - Check caterpillar drive chain for proper tension. Use take-up bar to adjust if required.	7 min/ 7 Drive	

**WARNING**

**Eye protection (goggles or face shield) must be worn when using compressed air for cleaning.**

Frequency Code: ----Q----A-	17. <b>CLEAN AND CHECK BACKUP ROLLERS OR BLOCKS.</b> - Clean and check backup rollers or blocks as follows:	3 min/ 7 Drive	
	<ol style="list-style-type: none"> <li>1. Remove dirt and foreign material from backup rollers or blocks.</li> <li>2. Clean with solvent, blow dry and relubricate rollers with GR-2.</li> <li>3. Check rollers for wear, gouging and wobble.</li> <li>4. Clean and check Backup Blocks for wear, and gouging.</li> <li>5. Rotate Block as necessary for new surface.</li> </ol>		
DA-1 CATER- PILLAR DRIVE ASS'Y	18. <b>CHECK SHAFT ENCODER.</b> - Check shaft encoder for secure mounting and clearance from caterpillar chain.	10 min	7

U.S. Postal Service  <b>Maintenance Checklist</b>	IDENTIFICATION											
	Work Code		Equipment Acronym			Class Code	Number		Type			
	0	3	T	O	W	V	E	L	A	0	0	1
Equipment Nomenclature <b>TOWVEYOR (MAIN LOOP), TYPE A</b>				Equipment Model <b>LINKBELT</b>			Bulletin Filename <b>M94138AC</b>		Frequency <b>ALL</b>			

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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(cont.)

Frequency  
Code:  
----Q----A-

- |                                 |     |   |                    |   |
|---------------------------------|-----|---|--------------------|---|
| Frequency<br>Code:<br>-----A--- | 19. | <b>LUBRICATE SHAFT BEARING.</b> - With disconnect locked out, perform the following: <ol style="list-style-type: none"> <li>1. Remove relief plug from reducer output shaft bearing.</li> <li>2. Apply GR-2 until fresh lubricant appears at plug.</li> </ol> | 7<br>min/<br>Drive | 7 |
|---------------------------------|-----|---|--------------------|---|

**WARNING**

**Be cautious when working around or on equipment when power has been applied.**

- |   |     |   |          |     |
|---|-----|---|----------|-----|
| SYSTEM<br><br>Frequency<br>Code:<br>-----A--- | 20. | <b>RESTORE EQUIPMENT TO SERVICE.</b> - Restore equipment to service as prescribed by the procedures contained in, or locally developed in accordance with, the current Maintenance Management Order (MMO) providing lockout/restore procedures. | 3<br>min | All |
|---|-----|---|----------|-----|

- |   |     |   |          |   |
|---|-----|---|----------|---|
| DA-1<br>CATER-<br>PILLAR<br>DRIVE ASS'Y<br>(cont.)<br><br>Frequency<br>Code:<br>-----A--- | 21. | <b>LUBRICATE SHAFT BEARING.</b> - Run one (1) minute. | 1<br>min | 7 |
|---|-----|---|----------|---|

- |  |     |  |          |   |
|--|-----|--|----------|---|
| SYSTEM<br><br>Frequency<br>Code:<br>-----A-K | 22. | <b>POWER DOWN AND LOCKOUT POWER.</b> - Power down the equipment and lockout its electrical power as prescribed by the procedures contained in, or locally developed in accordance with, the current Maintenance Management Order (MMO) providing lockout/restore procedures. | 1<br>min | 7 |
|--|-----|--|----------|---|

- |      |     |   |   |   |
|------|-----|---|---|---|
| DA-1 | 23. | <b>REPLACE RELIEF PLUG.</b> - Replace relief plug. Wipe | 1 | 7 |
|------|-----|---|---|---|

U.S. Postal Service  <b>Maintenance Checklist</b>	IDENTIFICATION											
	Work Code		Equipment Acronym				Class Code		Number		Type	
	0	3	T	O	W	V	E	L	A	0	0	1
Equipment Nomenclature <b>TOWVEYOR (MAIN LOOP), TYPE A</b>		Equipment Model <b>LINKBELT</b>				Bulletin Filename <b>M94138AC</b>		Frequency <b>ALL</b>				

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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CATER- off excess lubricant. min  
 PILLAR  
 DRIVE ASS'Y

Frequency  
 Code:  
 -----A---

Frequency 24. **CLEAN AIR VENT AND DRAIN REDUCER.** - With 20 7  
 Code: disconnect locked out and with unit warm from running, min/  
 -----K perform the following: Drive

1. Clean air vent.
2. Drain reducer by removing drain plug.
3. Replace drain plug and refill to proper level with GL-7.

AT-1 TRACK 25. **CLEAN ROLLER TURNS.** - With disconnect locked out, 10 7  
 Frequency perform the following: min/  
 Code: turn

Frequency  
 Code:  
 ----Q----A-

1. Clean dirt and foreign material from roller turns.
2. Clean with solvent, and blow dry.
3. Relubricate with GR-2.

OR clean plastic block turns.

U.S. Postal Service  <b>Maintenance Checklist</b>	IDENTIFICATION											
	Work Code		Equipment Acronym			Class Code	Number		Type			
	0	3	T	O	W	V	E	L	A	0	0	1
Equipment Nomenclature <b>TOWVEYOR (MAIN LOOP), TYPE A</b>				Equipment Model <b>LINKBELT</b>			Bulletin Filename <b>M94138AC</b>		Frequency <b>ALL</b>			

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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AT-1 TRACK (Cont.) Frequency Code: ----Q----A-	26.	<b>CHECK ROLLERS.</b> - Check rollers for wear, gouging and roll wobble. Check mounting bolts.  OR Check plastic block turns for wear, or gouging. Rotate block when needed for new surface.	2 min/ turn	7
AT-1 TRACK (Loop 4 only)  Frequency Code: M-Q----A-	27.	<b>CLEAN AND CHECK SPROCKET TURN.</b> - Clean and check sprocket turn as follows:  1. Remove dirt and foreign material from sprocket turn.  2. Check for wear and alignment.	10 min/ turn	7
AT-1 TRACK (Loop 4 only)  Frequency Code: M-Q----A-	28.	<b>CLEAN AND LUBRICATE SPROCKET TURN BEARINGS.</b> - Clean and lubricate sprocket turn bearings as follows:  1. Wipe off sprocket turn, bearing exterior, and lubrication fittings.  2. Using a hand grease gun, apply one (1) shot of GR-2.  3. Wipe off excess.	5 min/ turn	7
AT-1 TRACK  Frequency Code: -M-Q----A-	29.	<b>CLEAN CLEANOUT BOXES.</b> - Clean all foreign material from cleanout boxes.	10 min/ Box	7
Frequency Code: -M-Q----A-	30.	<b>CHECK TRACK.</b> - Check entire length of track for loose wear strips	1 min/ 50 ft.	7

U.S. Postal Service <b>Maintenance Checklist</b>	IDENTIFICATION											
	Work Code		Equipment Acronym			Class Code	Number		Type			
	0	3	T	O	W	V	E	L	A	0	0	1
Equipment Nomenclature <b>TOWVEYOR (MAIN LOOP), TYPE A</b>				Equipment Model <b>LINKBELT</b>			Bulletin Filename <b>M94138AC</b>		Frequency <b>ALL</b>			

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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AT-1 TRACK (Cont.)  Frequency Code: -M-Q----A-	31.	<b>CLEAN DRIVE PITS.</b> - Clean all foreign material from drive pits.	15 min/ 7 Drive	7
CH-1 TOWPIN CHAIN  Frequency Code: -M-Q----A-	32.	<b>CHECK LUBRICANT.</b> - Check lubricant level of automatic chain lubricator and if necessary:  1. Refill with GL-4 to level indicated on dip stick.  2. Check to see if disc contacts bottom of chain.	3 min	7
SYSTEM  Frequency Code: -M-Q----A-K	33.	<b>REPLACE COVER PLATES.</b> - With disconnect locked out, replace all cover plates.	20 min	7
CLEAN-UP  Frequency Code: -M-Q----A-K	34.	<b>CLEAN- UP.</b> -Ensure all tools, lubricants, rags, etc., are removed from the work area. Report all deficiencies to your supervisor.	3 min	All

**WARNING**

**Be cautious when working around or on equipment when power has been applied.**

SYSTEM  Frequency Code: -M-Q----A-K	35.	<b>RESTORE EQUIPMENT TO SERVICE.</b> - Restore equipment to service as prescribed by the procedures contained in, or locally developed in accordance with, the current Maintenance Management Order (MMO) providing lockout/restore procedures.	3 min	All
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U.S. Postal Service  <b>Maintenance Checklist</b>		IDENTIFICATION										
		Work Code		Equipment Acronym			Class Code	Number		Type		
		<b>0</b>	<b>3</b>	<b>T</b>	<b>O</b>	<b>W</b>	<b>V</b>	<b>E</b>	<b>L</b>	<b>A</b>	<b>0</b>	<b>0</b>
Equipment Nomenclature <b>TOWVEYOR (MAIN LOOP), TYPE A</b>		Equipment Model <b>LINKBELT</b>			Bulletin Filename <b>M94138AC</b>		Frequency <b>ALL</b>					

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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- |  |     |   |          |     |
|--|-----|---|----------|-----|
| START-UP<br><br>Frequency Code:<br>-M-Q----A-K | 36. | <b>START-UP.</b> - Perform normal start-up procedures as follows: <ol style="list-style-type: none"> <li>1. Start or preset equipment.</li> <li>2. Check for proper operation.</li> <li>3. Report all deficiencies to your supervisor in order to initiate any necessary work orders to make necessary repairs, or to remove excessive debris.</li> </ol> | 5<br>min | All |
|--|-----|---|----------|-----|