

maintenance management order

SUBJECT: PM Guidelines for Towveyor (Takeaway),
Type H (ACCO)

DATE: July 29, 1998

NO: MMO-052-98

TO: Bulk Mail Centers

FILE CODE: Y

dewa:M94158AC

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	5/16/2013	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 (Takeaway), Type H (ACCO) and supersedes Maintenance Checklist BO74.

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 (Takeaway), Type H (ACCO) Master Checklist

ATTACHMENT 1**-SUMMARY-****REVISED WORKLOAD ESTIMATE****FOR****TOWVEYOR (TAKEAWAY), TYPE H (ACCO)**

Routine Servicing (hrs/yr)	Repair* (hrs/yr)	Total Servicing & Repair Time (hrs/yr)	Nonproductive Time ** (hrs/yr)	Total Servicing Per Machine (hrs/yr)
17.12	5.15	22.26	2.23	24.51

* Repair estimates based on 30% of servicing.

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

TIME TOTALS

<u>Monthly Time Total:</u>	0.30 Hrs. ***
<u>Quarterly Time Total:</u>	3.24 Hrs. ***
<u>Semi-Annual Time Total:</u>	0.09 Hrs. ***
<u>Annual Time Total:</u>	0.17 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 (TAKEAWAY), TYPE H MASTER CHECKLIST**

03-TOWVE-ZZ-008-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

<u>CODE</u>	<u>FREQUENCY</u>	<u>DESCRIPTION</u>
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.

SAFETY 1. **COMPLY WITH ALL SAFETY PRECAUTIONS.** - 3 All

U.S. Postal Service Maintenance Checklist		IDENTIFICATION											
		Work Code		Equipment Acronym				Class Code		Number		Type	
		0	3	T	O	W	V	E	Z	Z	0	0	8
Equipment Nomenclature TOWVEYOR (TAKEAWAY), TYPE H		Equipment Model ACCO				Bulletin Filename M94158AC				Frequency ALL			

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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STATEMENT

Frequency

Code:

-M-Q-S-A-

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.

AA-1

2. **CHECK FOR MAIL.** - Look for loose mail while performing activities. 2.5 min 7

Frequency

Code:

-M-Q-S-A-

WARNING

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

WARNING

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

CH-1
TOWPIN
CHAIN

3. **CLEAN AND CHECK CHAIN.** - Clean and check chain as follows: 45 min 7

Frequency

Code:

----Q-S-A--

1. Clean chain by blowing with high pressure air. Run at least one (1) complete cycle.
2. Using a brush, thoroughly clean with solvent.
3. Check for bent or cracked links.
4. Look for evidence of excessive wear at link ends or connecting pins.

U.S. Postal Service Maintenance Checklist	IDENTIFICATION												
	Work Code		Equipment Acronym				Class Code		Number			Type	
	0	3	T	O	W	V	E	Z	Z	0	0	8	M
Equipment Nomenclature TOWVEYOR (TAKEAWAY), TYPE H	Equipment Model ACCO				Bulletin Filename M94158AC				Frequency ALL				

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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CH-1
TOWPIN
(Cont.)

4. **LUBRICATE CHAIN.** - Pour oil slowly over return strand of chain for two (2) complete turns.

0.22 min/
10ft.

7

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

SYSTEM

5. **POWER DOWN AND LOCKOUT POWER.** - 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 min

7

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

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

6. **REMOVE COVER PLATE.** - Remove cover plates. Erect barricades around open pits.

10 min

7

WARNING

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

CS-1
CONTAINER
SENSOR
SWITCHES

7. **CLEAN PIT, SWITCH HOUSING, AND ACTUATOR ARM.** - Clean pit, switch housing, and actuator arm as follows:

10 min

7

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

- Clean dirt and accumulated material from pit.
- Clean switch housing and actuator arm with solvent.

U.S. Postal Service		IDENTIFICATION									
Maintenance Checklist		Work Code		Equipment Acronym				Class Code	Number		Type
		0	3	T	O	W	V	E	Z	Z	0 0 8 M
Equipment Nomenclature TOWVEYOR (TAKEAWAY), TYPE H		Equipment Model ACCO				Bulletin Filename M94158AC			Frequency ALL		

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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- | | | | | |
|--|-----|---|-----------|---|
| CS-1
CONTAINER
SENSOR
SWITCHES
(Cont.)

Frequency
Code:
----Q-S-A- | 8. | CHECK AND LUBRICATE MOUNTING. - Check and lubricate switch mounting as follows:

1. Check switch mounting for security.

2. Check freedom of movement in direction of travel.

3. Lube necessary points. | 2
min | 7 |
| CD-1

Frequency
Code:
----Q-S-A- | 9. | CHECK AND LUBRICATE SPROCKET. - Check and lubricate sprocket as follows:

1. Check sprocket for uneven wear.

2. Lube necessary parts.

3. Check for smooth and quiet meshing of spur gear teeth. | 5
min | 7 |
| Frequency
Code:
----Q-S-A- | 10. | CLEAN PIT. - Clean Pit of all dirt and debris. | 5
min | 7 |
| DA-3
DRIVE ASSY

Frequency
Code:
----Q-S-A- | 11. | CLEAN MOTOR AND REDUCER. - Clean motor and reducer as follows:

1. Clean motor and reducer by wiping.

2. Clean vent holes and cooling fins as applicable. | 10
min | 7 |
| Frequency
Code:
----Q-S-A- | 12. | CHECK MOTOR. - Check motor and reducer housing for evidence of lubrication leakage. | 5
min | 7 |

U.S. Postal Service Maintenance Checklist	IDENTIFICATION												
	Work Code		Equipment Acronym				Class Code		Number		Type		
	0	3	T	O	W	V	E	Z	Z	0	0	8	M
Equipment Nomenclature TOWVEYOR (TAKEAWAY), TYPE H		Equipment Model ACCO				Bulletin Filename M94158AC				Frequency ALL			

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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DA-3 DRIVE ASSY (Cont.) 13. **CHECK GREASE LEVEL AND BEARINGS.** - Check grease level and bearings as follows: 20 min 7

- Frequency Code: ----Q-S-A-
1. Check grease level of reducer. Add as required.
 2. Check bearings replace as necessary.

Frequency Code: -----A- 14. **LUBRICATE MOTOR.** - Lubricate motor as follows: 4 min 7

1. Remove grease relief plug.
2. For motors 1/2 HP and over, apply 2 pumps of GR-2.

WARNING

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

SYSTEM 15. **RESTORE EQUIPMENT TO SERVICE.** - 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

Frequency Code: -----A-

DA-3 DRIVE ASSY 16. **RUN MOTOR.** - Run motor for one minute 1 min 7

Frequency Code: -----A-

SYSTEM 17. **POWER DOWN AND LOCKOUT POWER.** - 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 min 7

Frequency Code: -----A-

U.S. Postal Service Maintenance Checklist		IDENTIFICATION									
		Work Code		Equipment Acronym				Class Code	Number		Type
		0	3	T	O	W	V	E	Z	Z	0 0 8 M
Equipment Nomenclature TOWVEYOR (TAKEAWAY), TYPE H		Equipment Model ACCO				Bulletin Filename M94158AC			Frequency ALL		

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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DA-3 DRIVE ASSY 18. **REPLACE GREASE RELIEF PLUG.** - Replace motor grease relief plug. 1 min 7

Frequency Code:
-----A-

Frequency Code: 19. **CHECK V-BELTS AND SHEAVES.** - Check V-belts and sheaves as follows: 2 min 7

----Q-S-A-

1. Check V-belts and sheaves for wear and alignment.

2. Check sheave set screws and belt tension.

Frequency Code: 20. **CLEAN V-BELT AND SHEAVES.** - Clean foreign material from belts and sheaves by wiping with clean rags. 4 min 7

----Q-S-A-

Frequency Code: 21. **CHECK AND CLEAN CRITICAL SPEED SWITCH.** - Check and clean critical speed switch as follows: 10 min 7

----Q-S-A-

1. Check critical speed switch.

2. Check flexible coupling and set screws for wear and damage.

3. Wipe clean.

U.S. Postal Service Maintenance Checklist		IDENTIFICATION											
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		0	3	T	O	W	V	E	Z	Z	0	0	8
Equipment Nomenclature TOWVEYOR (TAKEAWAY), TYPE H		Equipment Model ACCO				Bulletin Filename M94158AC				Frequency ALL			

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

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

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| DA-3 DRIVE ASSY (Cont.)

Frequency Code:
----Q-S-A- | 22. CHECK AND CLEAN SPROCKET. - Check and clean sprocket as follows:

1. Check sprocket for wear and alignment.

2. Wrench test set screws.

3. Clean sprocket with solvent and rags. | 5 min

7 |
| PS-1 PIN STOP ASSY

Frequency Code:
----Q-S-A- | 23. WIPE MOTOR AND REDUCERS. - Wipe motor and reducers clean. | 2 min

7 |
| Frequency Code:
----Q-S-A- | 24. CHECK MOTOR AND REDUCER HOUSING. - Check motor and reducer housing for evidence of lubrication leakage. | 2 min

7 |
| Frequency Code:
----Q-S---- | 25. LUBRICATE REDUCER - Add two (2) shots of lubricant GR-2 to reducer. | 2 min

7 |
| Frequency Code:
----Q-S-A- | 26. CHECK AND LUBRICATE SPRING RETAINER. - Check and lubricate spring retainer as follows:

1. Check spring retainer pivot arm for wear or damage.

2. Lightly lube pivot points with HY-3. | 2 min

7 |

U.S. Postal Service Maintenance Checklist	IDENTIFICATION												
	Work Code		Equipment Acronym				Class Code		Number		Type		
	0	3	T	O	W	V	E	Z	Z	0	0	8	M
Equipment Nomenclature TOWVEYOR (TAKEAWAY), TYPE H		Equipment Model ACCO				Bulletin Filename M94158AC				Frequency ALL			

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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PS-1 PIN
STOP ASSY
(Cont.)

27. **CHECK AND LUBRICATE PIVOTING TRACK.** - Check and lubricate pivoting track as follows:

2 min 7

1. Check pivoting track for wear or damage.
2. Lightly lube pivot points with HY-3.

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

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

28. **LUBRICATE SURFACES OF SLIDING PLATE.** - Lightly lube the contacting surfaces of the sliding plate assembly with HY-3.

2 min 7

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

29. **CLEAN PIT, SWITCH HOUSING AND ACTUATOR ARM.** - Clean pit, switch housing, and actuator arm as follows:

10 min 7

1. Clean dirt and foreign material from pit.
2. Clean switch housing and actuator arm with solvent.

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

30. **CHECK SWITCH MOUNTING AND ACTUATOR.** - Check switch mounting and actuator for freedom of movement in direction of chain travel.

3 min 7

TU-1
TAKE-UP
ASSY

31. **CHECK AND LUBRICATE TAKE-UP.** - Check Take-up assembly. Lubricate as necessary.

5 min 7

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

U.S. Postal Service Maintenance Checklist	IDENTIFICATION												
	Work Code		Equipment Acronym				Class Code		Number			Type	
	0	3	T	O	W	V	E	Z	Z	0	0	8	M
Equipment Nomenclature TOWVEYOR (TAKEAWAY), TYPE H	Equipment Model ACCO				Bulletin Filename M94158AC				Frequency ALL				

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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IB-1 IDLER BOX	32.	CHECK AND CLEAN SPROCKET AND IDLER BOX. - Check and clean sprocket and idler box as follows:	15 min	7
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Frequency
Code:
----Q-S-A-

1. Check sprocket for wear and alignment.
2. Wrench test set screws to determine tightness of sprocket or shaft.
3. Clean sprocket using solvent and rags.
4. Grease fittings.
5. Wipe clean.
6. Clean idler box.

Frequency Code: ----Q-S-A-	<p>33. CHECK AND CLEAN SPEED SWITCH. - Check and clean speed switch as follows:</p> <ol style="list-style-type: none"> 1. Check critical speed switch. 2. Check flexible coupling and set screws for wear and damage. 3. Wipe clean. 	10 min
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AT-1 TRACK	34.	CHECK TRACK - Check entire length of track for loose wear bars.	1 min/50 ft.	7
Frequency Code: -M-Q-S-A				

ZZ-1 ROUTE COMPLETION Frequency Code: ----Q-S-A-	35. REPLACE PLATES. - Replace all cover plates.	10 min	7
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U.S. Postal Service Maintenance Checklist		IDENTIFICATION												
		Work Code			Equipment Acronym				Class Code		Number			Type
		0	3	T	O	W	V	E	Z	Z	0	0	8	M
Equipment Nomenclature TOWVEYOR (TAKEAWAY), TYPE H		Equipment Model ACCO				Bulletin Filename M94158AC				Frequency ALL				

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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CLEAN-UP
Frequency
Code:
-M-Q-S-A-

36. **CLEAN- UP.** -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-S-A-

37. **RESTORE EQUIPMENT TO SERVICE.** - 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

START-UP

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

38. **START-UP.** - Perform normal start-up procedures as follows:

5 min All

1. Start or preset equipment.
2. Check for proper operation.
3. Report all deficiencies to your supervisor in order to initiate any necessary work orders to make necessary repairs, or to remove excessive debris.