

MAINTENANCE TECHNICAL SUPPORT CENTER
HEADQUARTERS MAINTENANCE OPERATIONS
UNITED STATES POSTAL SERVICE



Maintenance Management Order

SUBJECT: PM Guidelines for Towveyor (Entry Line),
Type B (SI Handling)

DATE: July 22, 1998

NO: MMO-047-98

FILE CODE: Y

TO: Bulk Mail Centers

dewa:M94142AD

Online Change Record		
Change #	Date	Description of Change
2	4/26/2022	Attachment 2, corrected skill level 4, no longer in use, to level 7.
1	5/16/2013	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 (Entry Line), Type B (SI Handling), and supersedes Maintenance Checklist BO68.

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 (Entry Line), Type B (SI Handling) Master Checklist

ATTACHMENT 1**-SUMMARY-****REVISED WORKLOAD ESTIMATE****FOR****TOWVEYOR (ENTRY LINE), TYPE B (SI HANDLING)**

Routine Servicing (hrs/yr)	Repair* (hrs/yr)	Total Servicing & Repair Time (hrs/yr)	Nonproductive Time ** (hrs/yr)	Total Servicing Per Machine (hrs/yr)
30.73	9.22	39.95	3.99	43.91

* Repair estimates based on 30% of servicing.

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

TIME TOTALS

<u>Monthly Time Total:</u>	1.66 Hrs. ***
<u>Quarterly Time Total:</u>	2.00 Hrs. ***
<u>Semi-Annual Time Total:</u>	0.10 Hrs. ***
<u>Annual Time Total:</u>	.97 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.

THIS PAGE BLANK

ATTACHMENT 2**TOWVEYOR (ENTRY LINE), TYPE B (SI HANDLING) MASTER CHECKLIST**

03-TOWVE-ZZ-003-M

ALL

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.

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	3
Equipment Nomenclature TOWVEYOR (ENTRY LINE), TYPE B				Equipment Model SI HANDLING			Bulletin Filename M94142AD			Frequency ALL			

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

SAFETY STATEMENT Frequency Code: -M-Q-S-A-	1.	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.	3 min	All
AA-1 SAFETY Frequency Code: -M-Q-S-A-	2.	CHECK FOR MAIL. - Look for loose mail while performing activities.	2.5 min	4
		<div style="border: 1px solid black; padding: 5px; display: inline-block;">WARNING</div> Eye protection (goggles or face shield) must be worn when using compressed air, steam, or a high pressure cleaner/washer device for cleaning.		
CH-1 TOWPIN CHAIN Frequency Code: -----S---	3.	CLEAN CHAIN. - With equipment operating, perform the following: 1. Clean chain with steam or high pressure cleaner/washer device. 2. Run chain at least one (1) complete cycle. 3. Remove foreign material by blowing or vacuuming. 4. Check for bent, cracked, or worn links.	1 min/ 10 ft.	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	3
Equipment Nomenclature TOWVEYOR (ENTRY LINE), TYPE B			Equipment Model SI HANDLING			Bulletin Filename M94142AD			Frequency ALL			

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

CH-1 TOWPIN CHAIN (Cont.) Frequency Code: -M-Q-S-A-	4.	LUBRICATE CHAIN. - With equipment operating, pour GL-4 slowly over return strand of chain. Two (2) complete turns.	1 min/ 10ft.	7
SYSTEM Frequency Code: -M-Q-S-A-	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: -M-Q-S-A-	6.	REMOVE COVER PLATES. - Remove cover plates. Erect barricades around open pits.	20 min	7
		<div style="border: 2px solid black; padding: 2px; display: inline-block;">WARNING</div> Discard solvent soaked materials according to local procedures to prevent spontaneous combustion.		
		<div style="border: 2px solid black; padding: 2px; display: inline-block;">WARNING</div> Eye protection (goggles or face shield) must be worn when using compressed air for cleaning.		
CH-1 TOWPIN CHAIN Frequency Code: -----A-	7.	CLEAN CHAIN. - With disconnect locked out, perform the following: <ol style="list-style-type: none"> 1. Clean towin chain with solvent by brushing. 2. Remove foreign material by blowing or wiping clean. Jog chain if necessary. 	1 min per 10 ft.	7

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
Equipment Nomenclature TOWVEYOR (ENTRY LINE), TYPE B		Equipment Model SI HANDLING			Bulletin Filename M94142AD			Frequency ALL				

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

Frequency Code: ----Q-S-A-	8.	CHECK CHAIN. - Check chain for bent, cracked, or excessively worn links.	1 min per 10 ft.	7
		WARNING Discard solvent soaked materials according to local procedures to prevent spontaneous combustion.		
CS-1 CONTAINER SENSORS Frequency Code: ----Q-S-A-	9.	CLEAN SWITCH HOUSING AND ACTUATOR ARM. - With disconnect locked out, perform the following: 1. Clean dirt and accumulated material from pit. 2. Clean switch housing and actuator arm with solvent.	10 min	7
Frequency Code: ----Q-S-A-	10.	CHECK SWITCH AND ACTUATOR ARM. - Look for proper positioning and secure mounting of switch and actuator arm.	1 min	7
Frequency Code: ----Q-S-A-	11.	LUBRICATE AND CHECK PIVOT POINT. - Lubricate and check pivot point as follows: 1. Lubricate pivot point. 2. Operate unit by hand to see if it is sluggish or binding. 3. Inspect for damage.	2 min	7
Frequency Code: ----Q-S-A-	12.	CHECK SWITCH MOUNTING. - Check switch mounting, and for freedom of movement in direction of chain travel.	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	3
Equipment Nomenclature TOWVEYOR (ENTRY LINE), TYPE B		Equipment Model SI HANDLING				Bulletin Filename M94142AD		Frequency ALL				

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

IW-1 IDLER BOX Frequency Code: -----S-A-	13.	CHECK AND LUBRICATE IDLER WHEEL ASSEMBLY. - Check and lubricate idler wheel assembly as follows: <ol style="list-style-type: none"> 1. Remove cover. 2. Check idler wheel assembly for signs of wear or damage. 3. Lubricate the idler wheel bearing through the grease fitting on the center spindle, this will also provide lubrication to the thrust bearing under the idler wheel support pivot. 4. Place a few drops of oil on the thrust bearing under the idler wheel support pivot. 5. Place a thin film of grease on the support bar. 6. Reinstall cover. 	5 min	7
DA-2 SIDE FINGER DRIVE Frequency Code: -M-Q-S-A-	14.	CHECK CHAIN LUBRICANT LEVEL. - Check chain lubricant level as follows: <ol style="list-style-type: none"> 1. Check level of lubricant in chain lubricator. 2. Refill with GL-3. 3. Adjust valve on oil container to provide small steady stream to chain for two complete passes. Nozzle should be over center of chain. 	10 min	7
Frequency Code: -----Q-S-A-	15.	CHECK CHAIN. - Check adjustment of chain. Adjust chain at take-up screws on drive assembly.	5 min	7
Frequency Code: -----Q-S-A-	16.	CLEAN AND CHECK CRITICAL SPEED SWITCH. - Clean and check critical speed switch.	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	3
Equipment Nomenclature TOWVEYOR (ENTRY LINE), TYPE B		Equipment Model SI HANDLING				Bulletin Filename M94142AD		Frequency ALL				

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

DA-2 SIDE FINGER DRIVE (Cont.) Frequency Code: ----Q-S-A-	17.	CHECK AND LUBRICATE BROKEN CHAIN SWITCH. - Check and lubricate broken chain switch as follows: <ol style="list-style-type: none"> 1. Check broken chain switch for secure mount and freedom of movement. 2. Lubricate pivot point with HY-1. 	3 min	7
Frequency Code: ----Q-S-A-	18.	CHECK MOTOR AND REDUCER. - Inspect motor and reducer for evidence of lubrication leakage	2 min	7
Frequency Code: ----Q-S-A-	19.	CLEAN AND CHECK COUPLING. - Clean and check coupling as follows: <ol style="list-style-type: none"> 1. Clean and check coupling. 2. Wrench test set screws. 3. Feel keys for tightness. 	5 min	7
Frequency Code: ----Q-S-A-	20.	CHECK V-BELTS AND SHEAVES. - Check V-belts and sheaves as follows: <ol style="list-style-type: none"> 1. Check V-belts and sheaves for wear and alignment. 2. Check sheaves set screws and belt tension. 	4 min	7
Frequency Code: ----Q-S-A-	21.	CLEAN V-BELTS AND SHEAVES. - Clean foreign material from belts and sheaves by wiping with clean rags.	4 min	7
Frequency Code: ----Q-S-A-	22.	LUBRICATE GEAR REDUCER. - Add grease to gear reducer. Grease may be applied through a grease nipple provided on the top of the high speed end shield. Amount added should be equal to approximately 1/3 of normal fill.	20 min	7
Frequency Code: -----A-	23.	DRAIN AND REFILL COUPLING. - Drain and refill coupling with same quantity of HY-1 lubricant.	15 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	3
Equipment Nomenclature TOWVEYOR (ENTRY LINE), TYPE B		Equipment Model SI HANDLING				Bulletin Filename M94142AD		Frequency ALL				

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

DA-2 SIDE FINGER DRIVE (Cont.) Frequency Code: -----A-	24.	CHECK LUBRICANT ON SHAFT BEARINGS. - Check bearings for adequate lubricant. Apply new lubricant as necessary use lubricant GR-2	30 min	7
Frequency Code: -----A-	25.	LUBRICATE MOTOR. - Remove grease relief plug. For motors 1/2 HP and over, apply 2 pumps of GR-2.	4 min	7
		<div style="border: 1px solid black; padding: 5px; display: inline-block;">WARNING</div> Be cautious when working around or on equipment when power has been applied.		
SYSTEM Frequency Code: -----A-	26.	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
DA-2 SIDE FINGER DRIVE Frequency Code: -----A-	27.	RUN MOTOR. - Run motor for one minute.	1 min	7
SYSTEM Frequency Code: -----A-	28.	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

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
Equipment Nomenclature TOWVEYOR (ENTRY LINE), TYPE B		Equipment Model SI HANDLING			Bulletin Filename M94142AD			Frequency ALL				

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

DA-2 SIDE FINGER DRIVE(cont.) Frequency Code: -----A-	29.	REPLACE RELIEF PLUG. - Replace motor grease relief plug.	1 min	7
		WARNING Discard solvent soaked materials according to local procedures to prevent spontaneous combustion.		
Frequency Code: ----Q-S-A-	30.	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
Frequency Code: ----Q-S-A-	31.	CLEAN DRIVE PIT. - Clean drive pit.	20 min	7
PD-1 EMPTY PUSHER SENSOR Frequency Code: ----Q-S-A-	32.	CLEAN EPD PIT. - Clean dirt and debris from EPD pit.	5 min	7
Frequency Code: ----Q-S-A-	33.	CHECK PHOTOCELL HOUSING, LENS, AND REFLECTOR. - Check photocell housing, lens, and reflector.	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	3
Equipment Nomenclature TOWVEYOR (ENTRY LINE), TYPE B				Equipment Model SI HANDLING			Bulletin Filename M94142AD		Frequency ALL			

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

		<div style="border: 2px solid black; padding: 5px; display: inline-block;">WARNING</div> Discard solvent soaked materials according to local procedures to prevent spontaneous combustion.		
PS-1 ACCUMULATION STOP Frequency Code: ----Q-S-A-	34.	CLEAN PIT AND SWITCH HOUSING. - Clean pit and switch housing as follows: 1. Clean dirt and accumulated debris from accumulation stop pit. 2. Clean switch housing using solvent and rags.	10 min/ Stop	7
Frequency Code: ----Q-S-A-	35.	CHECK SWITCHING BLADE. - Check operation by unlatching switching blade.	2 min/ Stop	7
Frequency Code: ----Q-S-A-	36.	CLEAN AND LUBRICATE CENTER SLIDE ASSEMBLY. - Clean and lubricate center slide assembly (4) pivots.	5 min/ Stop	7
Frequency Code: ----Q-S-A-	37.	LUBRICATE SOLENOID. - Lightly lubricate all linkage and pivot points on solenoid.	2 min/ Stop	7
Frequency Code: ----Q-S-A-	38.	CLEAN AND CHECK LIMIT SWITCH HOUSING AND ACTUATOR. - Clean and check limit switch housing and actuator as follow: 1. Clean limit switch housing and actuator with solvent. 2. Check mounting and freedom of movement in direction of chain travel.	5 min/ Stop	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	3
Equipment Nomenclature TOWVEYOR (ENTRY LINE), TYPE B		Equipment Model SI HANDLING				Bulletin Filename M94142AD		Frequency ALL					

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

WARNING

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

AT-1 TRACK	39.	CLEAN TRACK. - Clean track of all dirt and debris by vacuuming or blowing out using low pressure air.	30 min	7
Frequency Code: -M-Q-S-A-				
Frequency Code: -M-Q-S-A-	40.	CHECK TRACK. - Check entire length of track for loose wear strips	1 min/ 50 ft.	7
SYSTEM	41.	REPLACE COVER PLATES. - Replace all cover plates.	20 min	7
Frequency Code: -M-Q-S-A-				
CLEAN-UP	42.	CLEAN- UP. - Ensure all tools, lubricants, rags, etc., are removed from the work area. Report all deficiencies to your supervisor.	3 min	All
Frequency Code: -M-Q-S-A-				

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
Equipment Nomenclature TOWVEYOR (ENTRY LINE), TYPE B		Equipment Model SI HANDLING			Bulletin Filename M94142AD			Frequency ALL				

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

		WARNING		
		Be cautious when working around or on equipment when power has been applied.		
SYSTEM Frequency Code: -M-Q-S-A-	43.	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-	44.	START-UP. - Perform normal start-up procedures as follows: <ol style="list-style-type: none"> 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. 	5 min	All