MAINTENANCE TECHNICAL SUPPORT CENTER / MAINTENANCE POLICIES & PROGRAMS ENGINEERING / UNITED STATES POSTAL SERVICE

maintenance management order

SUBJECT: PM Guidelines for Model 89 Portable Conveyor

DATE: January 12, 2001

NO: MMO-005-01

TO: All Maintenance Capable Offices

FILE CODE: Y

dewa:MM9623AD

Online Change Record		
Change #	**Date**	**Description of Change**
1	4/27/2022	Attachment 2, corrected skill level 4, no longer in use, to level 7.

This Maintenance Management Order (MMO) provides Preventive Maintenance (PM) guidelines for Model 89 Portable Conveyor.

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 requiring Safety Data Sheets (SDS) 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 SDS be requested. Refer to SDS for appropriate personal protective equipment.

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 Workload Estimate
2. Model 89 Portable Conveyor Master Checklist

ATTACHMENT 1

-SUMMARY-

WORKLOAD ESTIMATE

FOR

Model 89 Portable Conveyor

Routine Servicing (hrs/yr)	Repair* (hrs/yr)	Total Servicing & Repair Time (hrs/yr)	Nonproductive Time ** (hrs/yr)	Total Servicing Per Machine (hrs/yr)
13.3	4.0	17.3	1.8	19.1

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

TIME TOTALS

Monthly Time Total:	0.8 Hrs. ***
Quarterly Time Total:	0.6 Hrs. ***
Annual Time Total:	0.5 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 VMARS System.

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ATTACHMENT 2

MODEL 89 PORTABLE CONVEYOR MASTER CHECKLIST

03-PPC***-AA-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 VMARS superseding route structure. The possible frequencies and their codes are given in the table below:

Table 2-1. MS-63 VMARS Frequency-Codes

CODE	FREQUENCY	DESCRIPTION
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	P	P	C	*	*	A	A	0	0	1	M
Equipment Nomenclature **MODEL 89 PORTABLE CONVEYOR**	Equipment Model					Bulletin Filename **MM9623AD**				Frequency **ALL**			

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
STATEMENT Frequency Code: --M-Q-S-A		**Disconnect power and apply lockouts when required by this instruction. Refer to current local lockout procedures to properly shutdown and lockout this machine. 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. Ensure all employees are clear of the machine. Report safety deficiencies to your supervisor immediately upon detection.**	min	
Frequency Code: --M-Q-S-A	2.	**CHECK FOR MAIL. -** Look for loose mail while performing all activities.	2.5 min	7
-EC-1 CONTROLS Frequency Code: --M-Q-S-A	3.	**CHECK SWITCHES AND WIRING. -** Check switches and wiring as follows: 1. Check and feel for damage to switch boxes and associated conduit and wiring. 2. Look for damage to power cable and plugs.	2 min	7
-EC-1 CONTROLS Frequency Code: --M-Q-S-A	4.	**OPERATE SWITCHES. -** Operate all "on-off" switches to test for proper operation.	1 min	7
-DA2 VARI-SPEED DRIVE ASSY Frequency Code: --M-Q-S-A	5.	**OPERATE VARIABLE SPEED DRIVE (IF APPLICABLE). -** With conveyor running, perform the following: 1. Operate speed control to run the conveyor through its entire speed range. 2. Check that control handle turns easily (older models only). 3. Check that transmission belt runs without slippage at all speeds.	4 min	7

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	Work Code:		Equipment Acronym					Class Code:		Number			Type
	0	**3**	**P**	**P**	**C**	*****	*****	**A**	**A**	**0**	**0**	**1**	**M**
Equipment Nomenclature **MODEL 89 PORTABLE CONVEYOR**	Equipment Model					Bulletin Filename **MM9623AD**				Frequency **ALL**			

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
-DA2 VARI-SPEED DRIVE ASSY (Cont.) Frequency Code: --M-Q-S-A	6.	**CHECK DRIVE. -** With conveyor running, perform the following: 1. Check for unusual noise from motor or reducer. 2. Look for pulsation or excessive sag in roller chain. Listen for excessive chain noise. 3. Listen for evidence of wear or damage to internal parts.	2 min	7
-SA-1 CONVEYOR SECTION Frequency Code: --M-Q-S-A	7.	**CHECK BELT. -** With conveyor running, perform the following: 1. Check belt to determine if tension is properly adjusted. 2. Look for correct tracking of belt over drive pulley, terminal pulleys, and take-up pulley. 3. Look for damage to belt and belt lacing. 4. Check for build-up of foreign material and for excessive general wear, tears, ply separation, and fraying along belt edges.	3 min	7
Frequency Code: --M-Q-S-A	8.	**CHECK BEARINGS. -** With conveyor running, perform the following: 1. Check for evidence of wear or damage to pulley and roller bearings. 2. Check accessible bearing housings to detect excessive vibration. 3. Check each pulley for eccentricity or other indication of bent shaft.	3 min	7

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	0	3	P	P	C	*	*	A	A	0	0	1	M
Equipment Nomenclature **MODEL 89 PORTABLE CONVEYOR**	Equipment Model					Bulletin Filename **MM9623AD**				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

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

WARNING

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

SYSTEM Frequency Code: --M-Q-S-A	9.	**POWER DOWN AND LOCKOUT POWER. -** Power down the machine and lockout its electrical power as prescribed by the current local lockout instructions providing lockout/restore procedures.	3 min	All
-DA2 VARI-SPEED DRIVE ASSY Frequency Code: ----Q-S-A	10.	**SERVICE V-BELTS. -** Service V-belts as follows: 1. Remove guard from V-belt drive. 2. Clean dirt or other foreign material from belts, sheaves, or other power transmission parts. 3. Look for misalignment of sheaves and for excessive wear to V-belts and sheaves. 4. Feel V-belts (or measure sag between sheaves) to determine if tension is properly adjusted.	8 min	7
-DA2 VARI-SPEED DRIVE ASSY Frequency Code: --Q-----A	11.	**CHECK SET-SCREWS AND KEYS. -** Check set-screws and keys as follows: 1. Wrench-test set-screws. 2. Feel keys to determine if sheaves are tight on shafts.	4 min	7

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	Work Code:		Equipment Acronym					Class Code:		Number			Type
	0	**3**	**P**	**P**	**C**	*****	*****	**A**	**A**	**0**	**0**	**1**	**M**
Equipment Nomenclature **MODEL 89 PORTABLE CONVEYOR**	Equipment Model					Bulletin Filename **MM9623AD**				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	12.	**CHECK GEAR-CASE. -** With the conveyor shut down and disconnected, perform the following: 1. Look for evidence of leakage from gear-case. 2. If leakage is detected, remove oil level plug to determine lubricant level. 3. Add lubricant if required. Use lubricant SAE-50.	2 min	7
Frequency Code: --M-Q-S-A	13.	**CLEAN AND INSPECT MOTOR AND REDUCER. -** Clean and inspect motor and reducer as follows: 1. Wipe dirt, oil, and debris from exterior of motor and reducer housings and from drive mounting platform. 2. Look to see ventilation holes in motor housing are not obstructed.	4 min	7
Frequency Code: -----Q-S-A	14.	**CHECK DRIVE CHAIN. -** Check drive chain as follows: 1. Remove chain guard. 2. Check for excessive wear to roller chain and sprocket teeth. 3. Check for corrosion and build-up of dirt on transmission parts. 4. Feel chain to determine if tension is properly adjusted. 5. Feel sprockets to be sure they are tight on shafts. 6. Remount chain guard.	10 min	7
-DA2 VARI-SPEED DRIVE ASSY (Cont.) Frequency Code: -----Q-S-A	15.	**LUBRICATE DRIVE CHAIN. -** Lubricate roller chain between the main driving pulley and the right angle worm gear reducer. Use lubricant SAE-20W.	6 min	7

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	Work Code:		Equipment Acronym					Class Code:		Number			Type
	0	**3**	**P**	**P**	**C**	*	*	**A**	**A**	**0**	**0**	**1**	**M**
Equipment Nomenclature **MODEL 89 PORTABLE CONVEYOR**	Equipment Model					Bulletin Filename **MM9623AD**				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 **Discard solvent soaked materials according to local procedures to prevent spontaneous combustion.**		
Frequency Code: ----------A	16.	**SERVICE GEAR-CASE. -** Service gear-case as follows: 1. Clean gear-case and air vent with solvent. 2. Remove filler cap from gear-case. 3. Remove drain plug. 4. Drain old lubricant from gear-case. 5. Replace drain plug. 6. Fill gear-case to proper level with lubricant SAE-50 and check oil level. 7. Replace filler cap. 8. Wipe oil from exterior of reducer housing.	20 min	7
-SA-1 CONVEYOR SECTION Frequency Code: --M-Q-S-A	17.	**CLEAN CONVEYOR FRAME. -** Remove accumulated string, labels, and other debris from bed section, side ledges, pulley shafts, hopper, and frame parts.	5 min	7
Frequency Code: --------A	18.	**LUBRICATE BEARINGS. -** Lubricate pillow block and flange bearings holding the main drive pulleys. Use lubricant GR-2. Wipe bearings clean.	5 min	7

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	0	3	P	P	C	*	*	A	A	0	0	1	M
Equipment Nomenclature **MODEL 89 PORTABLE CONVEYOR**	Equipment Model					Bulletin Filename **MM9623AD**				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	19.	**CHECK TAKE-UP. -** Check to be sure there is adequate take-up travel and belt is tensioned properly.	2 min	7
Frequency Code: --M-Q-S-A	20.	**CHECK CASTERS AND WHEEL LOCKS. -** With the conveyor disconnected, perform the following: 1. Release floor locks (or wheel locks). 2. Roll the conveyor a short distance to test casters for proper operation. 3. Operate floor locks (or wheel locks) to test for proper locking action.	5 min	7
Frequency Code: ---------A	21.	**LUBRICATE CASTERS. -** Lubricate casters by hand greasing through the grease fitting in the center of the wheel axle and in the center of the swivel bearing plate. Wipe off any excess.	5 min	7
Frequency Code: ----Q-S-A	22.	**CHECK FRAME.-** Check frame as follows: 1. Feel for damage to the conveyor frame, hopper, side ledges, and other structural members. 2. Check and feel for loose bolts and broken welds or rivets.	2 min	7
CLEAN-UP Frequency Code: --M-Q-S-A	23.	**CLEAN-UP. -** Ensure all tools, lubricants, rags, etc., are removed from the work area. Report all deficiencies to your supervisor.	3 min	All
SYSTEM Frequency Code: --M-Q-S-A	24.	**RESTORE EQUIPMENT TO SERVICE. -** Restore equipment to service as prescribed by the current local procedure providing lockout/restore procedures.	3 min	All

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	Work Code:		Equipment Acronym					Class Code:		Number			Type
	0	**3**	**P**	**P**	**C**	*	*	**A**	**A**	**0**	**0**	**1**	**M**
Equipment Nomenclature **MODEL 89 PORTABLE CONVEYOR**	Equipment Model					Bulletin Filename **MM9623AD**				Frequency **ALL**			

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
START-UP Frequency Code: --M-Q-S-A	25.	**START-UP. -** Perform normal start-up as follows: 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

WARNING

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