

MAINTENANCE TECHNICAL SUPPORT CENTER
HEADQUARTERS MAINTENANCE OPERATIONS
UNITED STATES POSTAL SERVICE



Maintenance Management Order

SUBJECT: PM Guidelines for Transnorm 180 Degree
Power Turn Conveyor on the Singulator Scan
Induction Unit (SSIU)

DATE: July 07, 2004

NO: MMO-049-04

TO: Bulk Mail Centers

FILE CODE: Y

Dfau:MM02061AD

Online Change Record		
Change #	Date	Description of Change
3	04/27/2022	Attachments 2-5, corrected skill level 4, no longer in use, to level 7.
2	10/09/2015	Class code changed from AA to AG because Transnorm belt is part of the Buschman sorter, which has a code of AG.
1	03/12/2014	Updated Walking on Conveyor Safety statement.

This Maintenance Management Order (MMO) provides Preventive Maintenance (PM) guidelines for the Transnorm 180 Degree Power Turn Conveyor on the SSIU equipment.

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 Safety Data Sheets (SDS) may be utilized during the performance of the procedures in this bulletin. Ensure the current SDS for each product used is on file and available by all employees. When reordering such a product, it is suggested that a current SDS be requested.

WARNING

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 only on optical equipment when other cleaning methods cannot be used.

The attached master checklist provides tasks to be performed at periodic intervals (as listed in the frequency column), the time required per task, and the minimum skill level for each task.

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

WARNING

Moving conveyors may expose employees to personal safety hazards. Do not climb, sit or walk on conveyors without first performing local Energy Control Procedure (ECP).

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 Tschantz
Manager (A)
Maintenance Technical Support Center
HQ Maintenance Operations

- Attachments:
1. Summary of Workload Estimate
 2. Transnorm 180 Degree Power Turn Conveyor Master Checklist (Monthly)
 3. Transnorm 180 Degree Power Turn Conveyor Master Checklist (Quarterly)
 4. Transnorm 180 Degree Power Turn Conveyor Master Checklist (Semi-Annual)
 5. Transnorm 180 Degree Power Turn Conveyor Master Checklist (Bi-Annual)

ATTACHMENT 1**SUMMARY****WORKLOAD ESTIMATE FOR
TRANSNORM 180 DEGREE POWER TURN CONVEYOR**

Routine Servicing (hrs/yr)	Repair* (hrs/yr)	Total Servicing & Repair Time (hrs/yr)	Nonproductive Time ** (hrs/yr)	Total Servicing Per Machine (hrs/yr)
26.0	7.8	33.8	3.4	37.1

* Repair estimates based on 30% of servicing.

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

TIME TOTALS

Monthly Time Total: 1.8 Hrs. ***

Quarterly Time Total: 0.6 Hrs. ***

Semi-Annual Time Total: 0.6 Hrs. ***

Bi-Annual Time Total: 0.6 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.

THIS PAGE BLANK

ATTACHMENT 2

**TRANSNORM 180 DEGREE POWER TURN
CONVEYOR MASTER CHECKLIST**

03-SSIU-GA-001-M

MONTHLY

MONTHLY TIME TOTALS: 109.5 MINUTES

U.S. Postal Service Maintenance Checklist	IDENTIFICATION											
	Work Code		Equipment Acronym			Class Code		Number		Type		
	0	3	S	S	I	U	G	A	0	0	1	M
Equipment Nomenclature TRANSNORM 180 DEGREE POWER TURN CONVEYOR		Equipment Model SSIU			Bulletin Filename MM02061AD			Frequency MONTHLY				

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

SAFETY STATEMENT	1.	<p>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.</p> <p><u>THE USE OF COMPRESSED OR BLOWN AIR IS PROHIBITED.</u> 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 can not be used. Report safety deficiencies to your supervisor immediately upon detection.</p>	3 min	All
SYSTEM	2.	CHECK FOR MAIL. – Look for stray mail while performing all activities.	2.5 min	7
		<div style="border: 1px solid black; padding: 5px; display: inline-block;">WARNING</div> <p>Be cautious when working around or on equipment when power has been applied.</p>		
CONVEYOR BELT	3.	<p>CHECK CONVEYOR BELT. –</p> <ol style="list-style-type: none"> 1. Run conveyor belt. 2. Listen for bearing noise from operation of belt. 3. Check for proper tracking and belt tensioning (slippage). 	5 min	7
SYSTEM (Cont.)	4.	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.	3 min	All

U.S. Postal Service Maintenance Checklist	IDENTIFICATION										
	Work Code		Equipment Acronym				Class Code		Number		Type
	0	3	S	S	I	U	G	A	0	0	1
Equipment Nomenclature TRANSNORM 180 DEGREE POWER TURN CONVEYOR		Equipment Model SSIU			Bulletin Filename MM02061AD			Frequency MONTHLY			

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: 1px solid black; padding: 2px; display: inline-block;">WARNING</div> Discard solvent soaked materials according to local procedures to prevent spontaneous combustion.		
CONVEYOR	5.	CLEAN 180 POWER TURN CONVEYOR. – 1. Remove access panels as needed. 2. Check top and bottom belt tracking rollers and holders for wear/damage. 3. Check tracking bead on belt for wear or damage. 4. Using vacuum and rags, clean entire interior and exterior of the unit. 5. Clean photocells with a lint-free cloth. 6. Replace access panels removed.	90 min	7
		<div style="border: 1px solid black; padding: 2px; display: inline-block;">WARNING</div> Be cautious when working around or on equipment when power has been applied.		
SYSTEM	6.	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
SYSTEM	7.	CLEAN-UP. – Ensure all tools, lubricants, rags, etc., are removed from the work area. Report all deficiencies to your supervisor in order to initiate any necessary work orders to make necessary repairs, or to remove excessive debris.	3 min	All

THIS PAGE BLANK

ATTACHMENT 3

**TRANSNORM 180 DEGREE POWER TURN
CONVEYOR MASTER CHECKLIST**

03-SSIU-GA-002-M

QUARTERLY

QUARTERLY TIME TOTALS: 34.5 MINUTES

U.S. Postal Service Maintenance Checklist	IDENTIFICATION										
	Work Code		Equipment Acronym			Class Code		Number		Type	
	0	3	S	S	I	U	G	A	0	0	2
Equipment Nomenclature TRANSNORM 180 DEGREE POWER TURN CONVEYOR		Equipment Model SSIU			Bulletin Filename MM02061AD			Frequency QUARTERLY			

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

SAFETY STATEMENT	1.	<p>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.</p> <p><u>THE USE OF COMPRESSED OR BLOWN AIR IS PROHIBITED.</u> 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 can not be used. Report safety deficiencies to your supervisor immediately upon detection.</p>	3 min	All
	2.	CHECK FOR MAIL. – Look for stray mail while performing all activities.	2.5 min	7
SYSTEM	3.	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
VFD MOTOR/ REDUCER	4.	<p>CHECK VFD MOTOR/REDUCER. –</p> <ol style="list-style-type: none"> 1. Remove covers. 2. Check all mounting bolts, taper locks, and shaft set screws on motor/reducer for tightness. Tighten as needed. 3. Check reducer for oil leaks. 4. Check reducer oil level and fill with oil (Mobil SHC 629 or equivalent) as needed. 5. Check for damage to motor. 6. Check timing belt for wear and proper tension. (1/4"-1/2" deflection at midpoint). Adjust as needed. 7. Replace covers. 	20 min	7

U.S. Postal Service Maintenance Checklist	IDENTIFICATION											
	Work Code		Equipment Acronym				Class Code		Number		Type	
	0	3	S	S	I	U	G	A	0	0	2	M
Equipment Nomenclature TRANSNORM 180 DEGREE POWER TURN CONVEYOR		Equipment Model SSIU				Bulletin Filename MM02061AD		Frequency QUARTERLY				

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> <p>Be cautious when working around or on equipment when power has been applied.</p>		
SYSTEM	5.	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
	6.	CLEAN-UP. – Ensure all tools, lubricants, rags, etc., are removed from the work area. Report all deficiencies to your supervisor in order to initiate any necessary work orders to make necessary repairs, or to remove excessive debris.	3 min	All

THIS PAGE BLANK

ATTACHMENT 4

**TRANSNORM 180 DEGREE POWER TURN
CONVEYOR MASTER CHECKLIST**

03-SSIU-GA-003-M

SEMI-ANNUAL

SEMI-ANNUAL TIME TOTALS: 34.5 MINUTES

U.S. Postal Service Maintenance Checklist	IDENTIFICATION											
	Work Code		Equipment Acronym				Class Code		Number		Type	
	0	3	S	S	I	U	G	A	0	0	3	M
Equipment Nomenclature TRANSNORM 180 DEGREE POWER TURN CONVEYOR		Equipment Model SSIU				Bulletin Filename MM02061AD		Frequency SEMI-ANNUAL				

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

SAFETY STATEMENT	1.	<p>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.</p> <p><u>THE USE OF COMPRESSED OR BLOWN AIR IS PROHIBITED.</u> 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 can not be used. Report safety deficiencies to your supervisor immediately upon detection.</p>	3 min	All
	2.	CHECK FOR MAIL. – Look for stray mail while performing all activities.	2.5 min	7
	3.	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.	3 min	All
MAIN CONTROL CABINET or DRIVE CONTROL CABINET	4.	CHECK WIRING CABLES. – Check for damage to wiring cables between control panel and components.	10 min	7
FLANGE BEARINGS	5.	LUBRICATE FLANGE BEARINGS (4). – Lubricate flange bearings (if not sealed) on drive and tail end rollers using a lithium based grease (NLGI-2).	10 min	7

U.S. Postal Service Maintenance Checklist	IDENTIFICATION										
	Work Code		Equipment Acronym				Class Code		Number		Type
	0	3	S	S	I	U	G	A	0	0	3
Equipment Nomenclature TRANSNORM 180 DEGREE POWER TURN CONVEYOR		Equipment Model SSIU			Bulletin Filename MM02061AD			Frequency SEMI-ANNUAL			

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> Be cautious when working around or on equipment when power has been applied.		
SYSTEM	6.	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
	7.	CLEAN-UP. – Ensure all tools, lubricants, rags, etc., are removed from the work area. Report all deficiencies to your supervisor in order to initiate any necessary work orders to make necessary repairs, or to remove excessive debris.	3 min	All

U.S. Postal Service Maintenance Checklist		IDENTIFICATION										
		Work Code		Equipment Acronym				Class Code		Number		Type
		0	3	S	S	I	U	G	A	0	0	3
Equipment Nomenclature TRANSNORM 180 DEGREE POWER TURN CONVEYOR		Equipment Model SSIU				Bulletin Filename MM02061AD		Frequency SEMI-ANNUAL				

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

THIS PAGE BLANK

ATTACHMENT 5

**TRANSNORM 180 DEGREE POWER TURN
CONVEYOR MASTER CHECKLIST**

03-SSIU-GA-004-M

BI-ANNUAL

BI-ANNUAL TIME TOTALS: 74.5 MINUTES

U.S. Postal Service Maintenance Checklist	IDENTIFICATION										
	Work Code		Equipment Acronym				Class Code		Number		Type
	0	3	S	S	I	U	G	A	0	0	4
Equipment Nomenclature TRANSNORM 180 DEGREE POWER TURN CONVEYOR		Equipment Model SSIU				Bulletin Filename MM02061AD		Frequency BI-ANNUAL			

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

SAFETY STATEMENT	1.	<p>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.</p> <p><u>THE USE OF COMPRESSED OR BLOWN AIR IS PROHIBITED.</u> 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 can not be used. Report safety deficiencies to your supervisor immediately upon detection.</p>	3 min	All
	2.	CHECK FOR MAIL. – Look for stray mail while performing all activities.	2.5 min	7
SYSTEM	3.	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.	3 min	All
REDUCER	4.	CHANGE GEAR REDUCER OIL. – Drain and fill gear reducer with oil (Mobil SHC 629 or equivalent). If you have a oil analysis program adjust task and frequency accordingly.	60 min	7
		<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">WARNING</div> <p>Be cautious when working around or on equipment when power has been applied.</p>		

U.S. Postal Service Maintenance Checklist	IDENTIFICATION										
	Work Code		Equipment Acronym				Class Code		Number		Type
	0	3	S	S	I	U	G	A	0	0	4
Equipment Nomenclature TRANSNORM 180 DEGREE POWER TURN CONVEYOR		Equipment Model SSIU				Bulletin Filename MM02061AD		Frequency BI-ANNUAL			

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

System	5.	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
	6.	CLEAN-UP. – Ensure all tools, lubricants, rags, etc., are removed from the work area. Report all deficiencies to your supervisor in order to initiate any necessary work orders to make necessary repairs, or to remove excessive debris.	3 min	All