MAINTENANCE TECHNICAL SUPPORT CENTER
HEADQUARTERS MAINTENANCE OPERATIONS
UNITED STATES POSTAL SERVICE

Maintenance Management Order

SUBJECT: Single Induction Package Sorter (SIPS) Preventative Maintenance Guidelines Using eCBM

DATE: March 6, 2024

TO: All SIPS Sites

PUB NO: MMO-035-23
FILE CODE: See Table 1
FILE ID: mm23035
REV LEVEL: al

This Maintenance Management Order (MMO) provides Operational and Preventive Maintenance Guidelines for the Single Induction Package Sorter (SIPS). This bulletin applies to the Acronyms and Class Codes listed in Table 1.

Table 1. Affected Acronyms, Class Codes, and File Codes

Acronym	Class Code	File Code	Acronym	Class Code	File Code
SIPS	AA	SP1	SIPS	DB	SP1
SIPS	AB	SP1	SIPS	EA	SP1
SIPS	BA	SP1	SIPS	EB	SP1
SIPS	BB	SP1	SIPS	FA	SP1
SIPS	CA	SP1	SIPS	FB	SP1
SIPS	CB	SP1	SIPS	GA	SP1
SIPS	CC	SP1	SIPS	GB	SP1
SIPS	CD	SP1	SIPS	HA	SP1
SIPS	DA	SP1	SIPS	HB	SP1

The workhours indicated in the workload estimate (Attachment 1) are based on an 18-hour operations window and reflect the maximum annual workhours required to maintain each system. Actual workhour requirements and the frequency of tasks are dependent on run time and pieces processed. Therefore, PM workhour requirements will vary day-to-day based on site-specific machine utilization. Management may modify task frequencies to address local conditions.

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

Preventive Maintenance (PM) guidelines provide maintenance employees with the recommended task-based maintenance activities. The Electronic Conditioned Based Maintenance (eCBM) is an abbreviated task list that represents a portion of the PM checklist. The complete master PM checklist must be accessible to all maintenance employees when performing PM and eCBM task-based maintenance activities.

WARNING

Various products requiring 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 to all employees. When reordering such a product, it is suggested that current SDS be requested. Refer to SDS for appropriate personal protective equipment.

WARNING

The use of compressed or blown air is prohibited. An alternative cleaning method such as a HEPA filtered vacuum cleaner, a damp rag, lint-free cloth, or brush must be used in place of compressed or blown air.

WARNING

Steps contained in this bulletin may require the use of Electrical Work Plan (EWP) Personal Protective Equipment (PPE). Refer to the current EWP MMO for appropriate EWP PPE and barricade requirements.

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

Frederick L. Jackson III
Executive Manager
Maintenance Technical Support Center
Asset Maintenance Planning, Performance, and Support

Attachments
1. Summary of Workload Estimate For SIPS System
2. Master Checklist 03-SIPS-XX-001-M – SIPS Preventative Maintenance (PM)
3. Master Checklist 09-SIPS-XX-001-M – SIPS Operational Maintenance (OM)

ATTACHMENT 1

SUMMARY WORKLOAD ESTIMATE

FOR SIPS SYSTEM

Stacker Modules	Routine Servicing per Machine (Hrs/Yr)	Repair Time per Machine (Hrs/yr) *	Routine Servicing + Repair Time (Hrs/Yr)	Non-Productive Time per Machine (Hrs/yr) **	Total Servicing per Machine (Hrs/Yr)	Operational Maintenance + Total Servicing		
						1 Tour Hrs/Yr OpM x 1	2 Tours Hrs/Yr OpM x 2	3 Tours Hrs/Yr OpM x 3
4	1,356.90	407.07	1,763.97	176.40	1,940.37	2,134.50	2,328.64	2,522.77
5	1,361.86	408.56	1,770.42	177.04	1,947.46	2,141.59	2,335.73	2,529.86
6	1,366.82	410.05	1,776.87	177.69	1,954.56	2,148.69	2,342.83	2,536.96
7	1,371.80	411.54	1,783.34	178.33	1,961.67	2,155.80	2,349.94	2,544.07
8	1,376.76	413.03	1,789.79	178.98	1,968.77	2,162.90	2,357.04	2,551.17
9	1,381.72	414.52	1,796.24	179.62	1,975.86	2,169.99	2,364.13	2,558.26
10	1,386.70	416.01	1,802.71	180.27	1,982.98	2,177.11	2,371.25	2,565.38
11	1,391.66	417.50	1,809.16	180.92	1,990.08	2,184.21	2,378.35	2,572.48
12	1,396.62	418.99	1,815.61	181.56	1,997.17	2,191.30	2,385.44	2,579.57
13	1,401.60	420.48	1,822.08	182.21	2,004.29	2,198.42	2,392.56	2,586.69
14	1,406.56	421.97	1,828.53	182.85	2,011.38	2,205.51	2,399.65	2,593.78
15	1,411.52	423.46	1,834.98	183.50	2,018.48	2,212.61	2,406.75	2,600.88
16	1,416.50	424.95	1,841.45	184.15	2,025.60	2,219.73	2,413.87	2,608.00
17	1,421.46	426.44	1,847.90	184.79	2,032.69	2,226.82	2,420.96	2,615.09
18	1,426.42	427.93	1,854.35	185.44	2,039.79	2,233.92	2,428.06	2,622.19
19	1,431.40	429.42	1,860.82	186.08	2,046.90	2,241.03	2,435.17	2,629.30
20	1,436.36	430.91	1,867.27	186.73	2,054.00	2,248.13	2,442.27	2,636.40
21	1,441.32	432.40	1,873.72	187.37	2,061.09	2,255.22	2,449.36	2,643.49
22	1,446.30	433.89	1,880.19	188.02	2,068.21	2,262.34	2,456.48	2,650.61
23	1,451.26	435.38	1,886.64	188.66	2,075.30	2,269.43	2,463.57	2,657.70
24	1,456.22	436.87	1,893.09	189.31	2,082.40	2,276.53	2,470.67	2,664.80
25	1,461.20	438.36	1,899.56	189.96	2,089.52	2,283.65	2,477.79	2,671.92

*** Repair maintenance estimates based on 30% of preventive maintenance.**

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

OPERATIONAL MAINTENANCE	One Tour	Two Tours	Three Tours
	194.13	388.27	582.40

THIS PAGE BLANK

ATTACHMENT 2

SIPS MASTER CHECKLIST

03-SIPS-XX-001-M

PREVENTIVE MAINTENANCE (PM)

Time Total: (###) minutes

U.S. Postal Service Maintenance Checklist	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	S	I	P	S					X	X	0	0	1	M
Equipment Nomenclature Single Induction Package Sorter	Equipment Model										Bulletin Filename mm23000		Occurrence **eCBM**			

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
SAFETY STATEMENT	1	**COMPLY WITH ALL SAFETY PRECAUTIONS.** Disconnect power and apply lockouts when required by this instruction. Refer to current local lockout procedures to properly shut down and lock out this machine. 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. **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 on optical equipment only when other cleaning methods cannot be used. Report safety deficiencies to your supervisor immediately upon detection. **WARNING FOR EWP/PPE:** Steps contained in this bulletin may require the use of Electrical Work Plan (EWP) Personal Protective Equipment (PPE). Refer to the current EWP MMO or appropriate EWP PPE and barricade requirements. **WARNING FOR SDS:** Various products requiring 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 to all employees. When reordering such a product, it is suggested that current SDS be requested. Refer to SDS for appropriate personal protective equipment.	1	All			

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
ENTIRE MACHINE: SHUTDOWN	2**	**Power Down And Lock Out Power. (Power Off)** Power down and lock out power as prescribed by the current local lockout instructions providing lockout/restore procedures by a SIPS trained employee.	10	07	0.5	0.5	
ENTIRE MACHINE: MAIL SEARCH	3**	**Mail Search on Entire SIPS Machine (Power Off)** 1. Using the recommended walk sequence as listed below; perform the mail search of the following areas. a. IND-1: Induct Module b. DWS-1: Dimension, Weigh, Scan Module 1 c. DWS-2: Dimension, Weigh, Scan Module 2 d. IFS-1: Incline Feed System Conveyor e. IFS-2: Curve (If installed) f. SRT-1: Idle Module g. SRT-1: Sort Modules h. SRT-1: Drive Module i. SRT-1: End Chute 2. For each area list above, remove covers and panels as necessary. 3. Search for mailpieces. 4. Report visible conveyor belt damage. 5. Replace all covers and panels. 6. Check that all equipment guards are in place. 7. Return all mail found during mail search to the proper mail path.	45	07	0.5	0.5	
SORT SERVER CART: OCR COMPUTER	4	**Clean and Check OCR Computer (Power Off)** 1. Use a HEPA vacuum cleaner to clean accumulated dirt, dust, or debris from the OCR computer vents. 2. Check that all cable connections are fully inserted in their sockets on the back of the computer chassis and securing screws are finger tight on said cables if present.	10	07	546	1365	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		3. Note any deficiencies and generate a work order/report them to supervisor.					
SORT SERVER CART: SORT SERVER	5	**Clean and Check Sort Server Cart and Computer (Power Off)** 1. Use a HEPA vacuum cleaner to clean accumulated dirt, dust, or debris from the OCR computer vents. 2. Check that all cable connections are fully inserted in their sockets on the back of the computer chassis and securing screws are finger tight on said cables if present. 3. Note any deficiencies and generate a work order/report them to supervisor.	10	07	546	1365	
IND-1: BEARINGS	6**	**Grease Shaft Bearings (Power Off)** **CAUTION** **Discard all hazardous materials (both regulated and non-regulated waste), in accordance with all local and national environmental policies.** 1. Lubricate the sprocket shaft bearings, on both sides, with a grease gun and Mobil FM102 grease or equivalent. If the bearings are sealed, take care not to over lubricate the bearing. 2. Clean exposed grease from bearing, fitting, and shaft with locally approved cloths. 3. Check that all mounting hardware and securing set screws are tight. 4. Note any deficiencies and generate a work order/report them to supervisor.	20	07	1092	2730	
IND-1: BELT	7**	**Check Belt Elongation (Power Off)** 1. Use measuring tape to measure across 4 flights or 3 belt pocket assemblies. a. Check the measured length is less than or equal to 100.25-inches. b. If the measured length is more than 100.25-inches and less than 101.25-inches, order new belt and schedule belt replacement task. c. If the measure length is greater than 101.25-inches, replace the IND-1 belt.	10	07	546	1365	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		2. Note any deficiencies and generate a work order/report them to supervisor.					
IND-1: CARRY-WAY	8**	**Clean and Check Induct Belt and Carry-Way (Power Off)** 1. Use a HEPA vacuum cleaner to clean accumulated dirt, dust, or debris from top of IND-1 remove any dust and debris from space around belt rollers and all belt features (flights, rollers, etc.), observing deficiencies if present. Rotate belt by hand as needed to access entire length. 2. Check Idle End Sprockets teeth are visible through the belting. 3. Check that all sprockets' teeth maintain a minimum of 1/16-inch wide and 1/8-inch long flat surface on their tips. Belt may be moved to allow view of all sprocket teeth. 4. Use a damp cloth to clean the top surface of the belt. Rotate belt by hand as needed to access entire length. 5. Insert securing screwdrivers/T-handle hex wrenches in both ends of the carry-way. 6. Open belt and clean the carry-way surface. 7. Check the following: a. The static suppression sheet metal for rust, dents, or holes. b. The UHMW Plastic guide securing screws are fully inserted and snug. Avoid overtightening as it may damage or distort the guide(s). c. The condition of UHMW Plastic edge guides making sure they are not worn to the point of exposing their securing screws to the belting. d. The condition of the UHMW Plastic drive wear strips making sure they are not worn to the point of exposing their securing screws to the belting. e. The Nose Roller Nylon guides securing screws are fully inserted and snug. Avoid overtightening as it may damage or distort the guide(s).	40	07	545	1365	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		f. The thickness of the Nose Roller Nylon guides are not worn to the point of exposing their securing screws to the belting 8. Reconnect belting making sure the pins are in as good as new condition or replace them with new pins ensuring that they reach all the way across the belt. 9. Remove any screwdrivers/T-handle hex wrenches used to secure the belting for opening. 10. Note any deficiencies and generate a work order/report them to supervisor.					
IND-1: GEAR MOTOR	9**	**Check Gear Motor (Power Off)** **CAUTION** **Discard all hazardous materials (both regulated and non-regulated waste), in accordance with all local and national environmental policies.** 1. Check the motor gear case for leaking seals. 2. Remove any oily buildup from the machine and\or motor gearbox with locally approved oil absorbent cloth and cleaner. 3. Use a HEPA vacuum cleaner to clean accumulated dirt, dust, or debris from the breather on the gear case. 4. Ensure all hardware is tight. 5. Note any deficiencies and generate a work order/report them to supervisor.	15	07	1092	2730	
IND-1: RETURN-WAY	10**	**Clean Induct Belt and Return-way (Power Off)** 1. Remove larger lower windows from the sides of conveyor and lower plywood panels. 2. Remove debris and loose mail. 3. Use a HEPA vacuum cleaner to clean Return-way, inside of belting, and tension roller assemblies. 4. Check: a. Belting on the inside/underside for grooves, cracked or missing links. b. Tension arm rollers spin freely, with no missing or broken spokes, perimeters are solid with no missing chunks.	40	07	182	455	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		c. Tension Assemblies for smooth travel of swingarm, rollers turn freely. d. Support cables to make sure they are intact and attached. e. Return Idle rollers spin freely, have a solid perimeter surface and no missing or broken spokes. f. Drive sprockets' teeth maintain a minimum of 1/16th inch wide and 1/8th inch long flat surface on their tips. 5. Replace panels. 6. Return mail to proper path. 7. Note any deficiencies and generate a work order/report them to supervisor.					
IND-1: SENSOR(S)	11	**Clean Sensors (Power Off)** 1. Clean Over-Height and Pre-Cognition sensors. a. Remove Left or Right DWS-1 window to gain access to the Pre-Cognition Sensor emitter and receiver. b. Use a HEPA vacuum cleaner to vacuum excess dust if required. c. Mist a dry lint-free towel with water, and wipe until clean. 2. Replace removed panel. 3. Note any deficiencies (scratched/cracked or broken lenses) and generate a work order/report them to supervisor.	15	07	0.5	0.5	
IND-1: TENSION ASSEMBLIES	12**	**Check Tension Assemblies (Power Off)** 1. Remove IND-1- large lower windows on 1 side and check tensioning assemblies are in good working order and free of debris. 2. Check the following: a. Tension Swingarms travel without any binding. b. Cables for the swing arms are intact and attached properly. c. Return and Tension rollers have a solid perimeter surface and no missing or broken spokes.	25	07	546	1365	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		d. All tension rollers are riding on the belt and not the belt rollers. (They will maintain a 4 inch on center spacing.) e. Return-way rollers are missing/not hitting the flights and/or the belt rollers. (They will maintain a 10 inch on center spacing,) f. Check all hardware is tight. 3. Replace lower windows. 4. Note any deficiencies and generate a work order/report them to supervisor.					
DWS-1/BUFFER: BELT	13**	**Clean Buffer Conveyor (Power Off)** 1. Remove left or right window from DWS-1 the gain access to the belt. 2. Clean belt of all debris. Rotate belt as needed to clean the entire belt. 3. Observe conveyor belt for conditions requiring replacement: a. Slick belt surface. b. Belt splice separation. (Any belt splice separation will require complete belt replacement due to proximity of trigger photo eyes.) c. Nicks, tears, abrasions, and fraying. 4. Replace removed panel. 5. Note any deficiencies and generate a work order/report them to supervisor.	20	07	182	455	
DWS-1/BUFFER: DRIVE BELT	14**	**Check Gear motor, Drive Belt and Pulleys (Power Off)** **CAUTION** **Discard all hazardous materials (both regulated and non-regulated waste), in accordance with all local and national environmental policies.** 1. Remove Plexiglass/Lexan panel from the right side of DWS-1. 2. Remove Emergency Stop Pullcord offset bracket from DWS-1 3. Remove Shaft End Guard #1 from right side between IND-1 and DWS-1. 4. Remove Lower Right View tunnel guard/support from DWS-1.	45	07	2184	5460	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		5. Check the motor gear case for oil leaking around seals. 6. Remove any oily buildup from the machine, motor, and gearbox with locally approved oil absorbent cloth and cleaner. 7. Use a HEPA vacuum cleaner to clean accumulated dirt, dust, or debris from the motor, gearbox, and its breather (if present). 8. Remove belt covers and check that the belt and pulleys do not contact belt cover or frame. 9. Loosen belt tension assembly. 10. Remove Belt. 11. Replace belt. (NSN 3030-18-000-7702) 12. Tension Belt. 13. Tighten belt tension assembly. 14. Apply pressure from the bottom side of the belt. Ideal deflection is between 1/16 – 1/8 inch. 15. Re-Tension belt if needed. 16. Check condition of belt and pulleys, looking for fraying, worn/missing teeth/cogs, signs of being out of alignment. 17. Replace all brackets, covers, guards, panels, and supports. 18. Check that E-Stop Pullcord works by tripping and resetting making sure it latches in the reset position. 19. Check all hardware is tight. 20. Note any deficiencies and generate a work order/report them to supervisor.					
DWS-1: MCP	15	**Clean and Check Main Control Panel (MCP) (Power Off)** 1. Check all control hardware is securely mounted inside the MCP. 2. Confirm all wires are secured in their terminals. 3. Use a HEPA vacuum cleaner to clean surfaces of components installed in the MCP cabinet.	10	07	546	1365	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		4. Note any deficiencies and generate a work order/report them to supervisor.					
DWS-1: SENSOR(S)	16	**Clean Dimensioning and Height Tower Arrays (Power Off)** 1. Clean/Clear DWS.DIM.H, DWS.DIM.W, and Height Tower arrays of any dust or debris, paying special attention to the width array mounted below the transition of DWS-1 to DWS-2. 2. Use a HEPA vacuum cleaner to clean sensors with non-abrasive attachment if required. a. Wipe all emitters and receivers with lint-free towel to remove dust or debris. b. Use a spray bottle containing tap water or non-abrasive, non-corrosive and plastic safe, locally approved cleaner to lightly mist cloth for wiping away stubborn smudges. 3. Note any deficiencies and generate a work order/report them to supervisor.	15	07	0.5	0.5	
DWS-2/SCALE: BELT	17**	**Clean Scale Conveyor Belt (Power Off)** 1. Clean belt of all debris. Rotate belt as needed to clean entire belt. 2. Remove product debris between load cell and weighing belt if necessary. 3. Check conveyor belt for conditions requiring replacement: a. Slick belt surface. b. Belt splice separation. (Any belt splice separation will require complete belt replacement due to proximity of trigger photo eyes.) c. Nicks, tears, abrasions, and fraying. 4. Note any deficiencies and generate a work order/report them to supervisor.	15	07	546	1365	
DWS-2/SCALE: CONTROL PANEL	18	**Clean and Check Scale Control Panel (Power Off)** 1. Confirm all control hardware is securely mounted inside Scale Control Panel.	20	07	546	1365	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		2. Confirm all wires are secured in their terminals. 3. Use a HEPA vacuum cleaner to clean surfaces of components installed in the Scale Control Panel cabinet. 4. Note any deficiencies and generate a work order/report them to supervisor.					
DWS-2/SCALE: DRIVE BELT	19**	**Check Drive Belt Tension and Alignment (Power Off)** 1. Remove belt covers and check that the belt and pulleys do not contact belt covers or frame. 2. Check for worn or missing teeth, or wear on one side of belt or pulleys indicating side loading due to improper pulley alignment. 3. Apply pressure from the bottom/non-tensioner side of the belt. Ideal deflection is between 1/16 – 1/8 inch. 4. Adjust tension to achieve ideal deflection of 1/16 - 1/8-inch. 5. Check all Hardware is tight. 6. Reinstall removed belt covers. 7. Note any deficiencies and generate a work order/report them to supervisor.	15	07	546	1365	
DWS-2/SCALE: GEAR MOTOR	20**	**Check Motor (Power Off)** **CAUTION** **Discard all hazardous materials (both regulated and Check the motor gear case for oil leaking around seals.** 1. Check the motor gear case for oil leaking around seals. 2. Remove any oily buildup from the machine and\or motor gearbox with locally approved oil absorbent cloth and cleaner. 3. Check all hardware is tight. 4. Use a HEPA vacuum cleaner to clean accumulated dirt, dust, or debris from the breather on the gear case. 5. Note any deficiencies and generate a work order/report them to supervisor.	10	07	546	1365	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
DWS-2: VITRONIC VDU COMPUTER	21	**Clean and Check Vitronic VDU Computer (Power Off)** 1. Confirm all cable connections are fully inserted in their sockets on the bottom of the computer chassis and securing screws are finger tight on said cables if present. 2. Use a HEPA vacuum cleaner to clean accumulated dirt, dust, or debris from the Vitronic VDU chassis and its vents. 3. Note any deficiencies and generate a work order/report them to supervisor.	15	07	1092	2730	
DWS-2: VITRONIC CAMERA	22**	**Clean Overhead Camera Clear Cover (Power Off)** **CAUTION** **The glass used in this system is fragile enough to break if pressure is applied.** **CAUTION** **Do not lean or stand on the Scan Conveyor. Applying additional weight to the Scale Conveyor may damage the scale.** **NOTE** **Do not spray the equipment. Only a misting on the cloth is required. Optionally, use a streak-free glass cleaner.** 1. Using a lint-free cloth, gently wipe the underside of the clear cover over the camera lens and LED array. 2. Use a spray bottle containing tap water to moisten cloth for wiping away stubborn smudges. 3. Note any deficiencies and generate a work order/report them to supervisor.	15	07	546	1365	
DWS-2/SCALE: SENSOR(S)	23	**Clean Sensors (Power Off)** 1. Clean Product Jam Sensor emitter and receiver. a. Use a HEPA vacuum cleaner to vacuum dust if required.	3	07	0.5	0.5	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		b. Use a spray bottle containing tap water or non-abrasive, non-corrosive and plastic safe, locally approved cleaner to lightly mist cloth for wiping away stubborn smudges. 2. Note any deficiencies (scratched/cracked or broken lenses) and generate a work order/report them to supervisor.					
IFS-1/INCLINE: BEARINGS	24**	**Clean and Check Rollers and Bearings (Power Off)** 1. Remove covers or panels as required. 2. Loosen tension on belting at tensioning footballs ensuring securing screws and pins are loose on both sides before doing so. 3. Check the drive roller is secure and has no abnormal bearing movement. 4. Check belt idle rollers are secure, free of debris, spin freely, and have no abnormal bearing movement. 5. Re-tension belting. 6. Secure tensioning footballs with removed pins and bolts. 7. Reinstall any removed covers or panels. 8. Note any deficiencies and generate a work order/report them to supervisor.	20	07	546	1365	
IFS-1/INCLINE: BEARINGS	25**	**Grease Shaft Bearings (Power Off)** **CAUTION** **Discard all hazardous materials (both regulated and non-regulated waste), in accordance with all local and national environmental policies.** 1. Lubricate the sprocket shaft bearings, on both sides, with a grease gun and Mobil FM102 grease or equivalent. If the bearings are sealed, take care not to over lubricate the bearing. 2. Clean exposed grease from bearing, fitting, and shaft with locally approved cloths. 3. Check that all mounting hardware and securing set screws are tight. 4. Note any deficiencies and generate a work order/report them to supervisor.	15	07	1092	2730	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
IFS-1/INCLINE: BELT	26**	**Clean Belt (Power Off)** 1. Clean topside of belt of all debris. 2. Check conveyor belt for conditions requiring replacement: a. Slick belt surface. b. Belt splice separation. (Greater than 1/2-inch separation on the edges or greater than 1.5-inch separation in the center part of belt requires belt replacement.) c. Nicks, tears, abrasions, and fraying. (Any damage that can flap away from belt more than 1/4-inch requires belt replacement.) 3. Note any deficiencies and generate a work order/report them to supervisor.	20	07	546	1365	
IFS-1/INCLINE: CHAIN	27**	**Check Chain Tension and Alignment (Power Off)** 1. Remove chain safety cover. 2. Check that chain does not contact chain cover or frame. 3. Check sprocket for signs of wear such as cracks, worn or missing teeth, or signs of wear on one side indicating side loading due to improper sprocket alignment. 4. Apply pressure from the bottom side of the chain. Ideal deflection is between 3/16 - 1/4 inch. 5. Tension chain if needed. 6. Check all hardware is tight. 7. Reinstall any removed cover. 8. Note any deficiencies and generate a work order/report them to supervisor.	15	07	546	1365	
IFS-1/INCLINE: CHAIN	28**	**Oil Chain and Sprockets (Power Off)** **CAUTION** **Discard all oil-soaked materials in accordance with all local and national environmental policies.** 1. Remove chain cover. 2. Lubricate with 30 weight, non-detergent, synthetic oil or equivalent as needed.	20	07	546	1365	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		3. Clean dripping oil from chain and sprocket. 4. Reinstall removed chain cover. 5. Note any deficiencies and generate a work order/report to the supervisor.					
IFS-1/INCLINE: GEAR MOTOR	29**	**Check Motor (Power Off)** **CAUTION** **Discard all hazardous materials (both regulated and non-regulated waste), in accordance with all local and national environmental policies.** 1. Check the motor gear case for oil leaking around seals. 2. Remove any oily buildup from the machine and\or motor gearbox with locally approved oil absorbent cloth and cleaner. 3. Check all hardware is tight. 4. Use a HEPA vacuum cleaner to clean accumulated dirt, dust, or debris from the breather on the gear case. 5. Note any deficiencies and generate a work order/report them to supervisor.	10	07	1092	2730	
IFS-2/CURVE: BEARINGS	30**	**Clean and Check Rollers and Bearings (Power Off)** 1. Remove covers or panels as required. 2. Remove drive belt. 3. Check: a. That the drive roller and the motor roller show no signs of wear on one side of roller or that the belt is riding off one side of roller indicating misalignment. b. All rollers are secure, free of debris, spin freely, and have no abnormal movement. c. All bearings are secure, free of debris, spin freely, and have no abnormal movement. 4. Re-install drive belt. 5. Re-tension drive belt. 6. Reinstall any removed covers or panels. 7. Note any deficiencies and generate a work order/report them to supervisor.	20	07	1092	2730	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
IFS-2/CURVE: BEARINGS	31**	**Grease Shaft Bearings (Power Off)** **CAUTION** **Discard all hazardous materials (both regulated and non-regulated waste), in accordance with all local and national environmental policies.** 1. Lubricate the sprocket shaft bearings, on both sides, with a grease gun and Mobil FM102 grease or equivalent. If the bearings are sealed, take care not to over lubricate the bearing. 2. Clean exposed grease from bearing, fitting, and shaft with locally approved cloths. 3. Check that all mounting hardware and securing set screws are tight. 4. Note any deficiencies and generate a work order/report them to supervisor.	20	07	546	1365	
IFS-2/CURVE: BELT	32**	**Clean Belt, Rollers, and Bearings (Power Off)** 1. Remove covers or panels as required. 2. Loosen and disengage the drive belt. 3. Clean belt, rollers, and bearings of all debris. Roll belt as needed. 4. Observe conveyor belt for conditions requiring replacement: a. Slick belt surface. b. Belt splice separation. (Greater than 1/2-inch separation on the edges or greater than 1.5-inch separation in the center part of belt requires belt replacement.) c. Nicks, tears, abrasions, and fraying. (Any damage that can flap away from belt more than 1/4-inch requires belt replacement.) 5. Check that all rollers and pulleys turn free. 6. Replace drive belt and properly tension it. 7. Check all hardware is tight. 8. Reinstall any removed covers or panels. 9. Note any deficiencies and generate a work order/report them to supervisor.	30	07	1092	2730	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
IFS-2/CURVE: BELT CHAIN	33**	**Check Flow Turn Chain Tension, Chain Slack and Grease as needed (Power Off)** **NOTE** **This task requires two people. Time is doubled for staffing purposes. Outside rail and chain cover removal and replacement are two person steps.** 1. Remove covers or panels as required. 2. Check sprockets for signs of wear such as cracks, worn or missing teeth, or signs of wear on one side indicating side loading due to improper sprocket alignment. 3. Check chain slack on the bottom of the sprocket on the discharge end of the curve. Ideal Chain slack will be within 3/16-3/8 inch. 4. Using a grease gun with grease, lubricate sprocket shaft bearings on both sides as needed. Do not over lubricate. These May Be sealed bearings. Use Mobil grease FM102 grease or equivalent as needed. 5. Lubricate upper chain guides with Lubriplate #3000 grease or equivalent as needed. 6. Clean exposed grease from bearings, guards, guides, and machine. 7. Reinstall any removed covers or panels. 8. Note any deficiencies and generate a work order/report them to supervisor.	40	07	1092	2730	
IFS-2/CURVE: DRIVE BELT	34**	**Check Drive Belt Tension and Alignment (Power Off)** 1. Remove belt cover and check that the belt and pulleys do not contact belt cover or frame. 2. Check pulley alignment with a straight edge on the side of pulleys. 3. Check for worn or missing teeth, or signs of wear on one side of pulley or belt indicating side loading due to improper pulley alignment. 4. Apply pressure from the bottom side of the belt. Ideal deflection is between 3/16 – 3/8 inch. 5. Adjust tension as needed to achieve the 3/16-3/8th inch deflection.	20	07	1092	2730	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		6. Check all Hardware is tight. 7. Reinstall removed belt cover. 8. Note any deficiencies and generate a work order/report them to supervisor.					
IFS-2/CURVE: GEAR MOTOR	35**	**Check Motor (Power Off)** **CAUTION** **Discard all hazardous materials (both regulated and non-regulated waste), in accordance with all local and national environmental policies.** 1. Check the motor gear case for leaking seals. 2. Remove any oily buildup from the machine and/or motor gearbox with locally approved oil absorbent cloth and cleaner. 3. Use a HEPA vacuum cleaner to clean accumulated dirt, dust, or debris from the breather on the gear case and the outside of all the drive motor cooling fan covers. 4. Check all hardware is tight. 5. Note any deficiencies and generate a work order/report them to supervisor.	15	07	1092	2730	
IFS-2/CURVE: SENSOR(S)	36	**Clean Sensors (Power Off)** 1. Clean IFS-2 Tail End Sensor (IFS2-TES) emitter and receiver. a. Use a HEPA vacuum cleaner to vacuum excess dust if required. b. Use a spray bottle containing tap water or non-abrasive, non-corrosive and plastic safe, locally approved cleaner to lightly mist cloth for wiping away stubborn smudges. 2. Note any deficiencies (scratched/cracked or broken lenses) and generate a work order/report them to supervisor.	10	07	0.5	0.5	
AIR TREATMENT ASSEMBLY: FILTER	37**	**Check Air Pressure Regulator Filter (Power Off).** **CAUTION** **Discard all hazardous materials (both regulated and non-regulated waste), in accordance with all local and national environmental policies.** 1. Turn Air Cut-Off valve off.	15	07	42	105	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		2. Remove Filter Bowl/Reservoir. 3. Confirm Filter and bowl do not contain any dirt, oil, rust, or water. 4. Drain and clean bowl if contaminants are present. 5. Replace filter if dirt, oil, rust, or water coat filter. 6. Replace Filter Bowl/Reservoir. 7. Check Air Cut-Off valve silencer for oil or moisture build-up. Replace Silencer if found. 8. Check Air Dump valve silencer for oil or moisture build-up. Replace Silencer if found. 9. Turn Air Cut-Off valve on. 10. Note any deficiencies and generate a work order/report them to supervisor.					
SRT-1/IDLE: AIR CYLINDERS	38**	**Check All Air Cylinders, Clevis Pins and Pin Clips (Power Off)** 1. Remove both clear Return-way inspection covers from the right side of SRT-1 Idle/Tail End. 2. Check air lines for brittle conditions. 3. Check air lines for length so there is enough slack so not pulling on connections and replace if found. 4. Check **ALL** air cylinders (7 In total) underneath sorter for worn/missing clevises, clevis pins and clips (14 locations). 5. Replace all covers. 6. Note any deficiencies and generate a work order/report them to supervisor.	20	07	1092	2730	
SRT-1/IDLE: BEARINGS	39**	**Grease Shaft Bearings (Power Off)** **CAUTION** **Discard all hazardous materials (both regulated and non-regulated waste), in accordance with all local and national environmental policies.** 1. Lubricate the sprocket shaft bearings, on both sides, with a grease gun and Mobil FM102 grease or equivalent. If the bearings are sealed, take care not to over lubricate the bearing.	15	07	1092	2730	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		2. Clean exposed grease from bearing, fitting, and shaft with locally approved cloths. 3. Check that all mounting hardware and securing set screws are tight. 4. Note any deficiencies and generate a work order/report them to supervisor.					
SRT-1/IDLE: BELT	40**	**Clean Belt (Power Off)** 1. Remove any dust and debris from space around belt, its traverse rollers and other belt features. 2. Use a HEPA vacuum cleaner to clean accumulated dirt, dust, or debris from topside of belt and exterior of SRT-1 Idle Module. 3. Use a damp cloth to clean the top surface of the belt. 4. Ensure all belt-connecting pins are fully installed. 5. Note any deficiencies and generate a work order/report them to supervisor.	15	07	1092	2730	
SRT-1/IDLE: BELT DISENGAGEMENT	41**	**Check Belt Disengagement from sprocket and Rack-and-Roll Homing. (Power Off)** 1. At SRT-1 Tail/Idle End, check all belt rollers are in place and are not showing cut, nicked, or missing outer rubber coating. 2. Run hand over roller belt, make sure belt rollers do not contact sprocket and all rollers spin freely. 3. Run hand over roller belt, make sure belt rollers do not contact carry-way or Rack-N-Roll rollers and spin freely. 4. Note any deficiencies and generate a work order/report them to supervisor.	15	07	546	1365	
SRT-1/IDLE: RACK-N-ROLL	42**	**Clean and Check All Rack-N-Roll Rollers. (Power Off)** **NOTE** **This task requires two people. Time is doubled for staffing purposes. Opening and closing of the SRT-1 S7000 belt are two person steps.**	20	07	1092	2730	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		1. Insert an appropriately sized screwdriver/T-handle hex wrench through two belt locking holes near both Drive end and Idle end sprockets. This secures carry-way belt after being opened and does not allow gravity to pull belt into return-way. 2. Split the belt at center of the SRT-1/IDLE module. 3. While the belt is split, check all Rack-N-Roll roller assemblies for wear with Go-No-Go gauge NSN 5220-19-000-2795. (Roller diameter can be checked with the end of the gauge while the roller axle wear can be checked by placing the edge of the tool horizontally across the belt rollers and measuring that a clearance between the tool and the belt frame around the rollers is 1/16th inch or more. 4. Check all Rack-N-Roll roller assemblies for damage such as cut, nicked, or missing outer rubber coating. 5. Make sure all Rack-N-Roll rollers spin freely. 6. Use a pick tool and a HEPA vacuum to clean around all rollers and roller assemblies. 7. Check that sprockets are aligned with belting, evenly spaced, and not worn. 8. Measure edge of S7000 roller belt and belt supporting edge of UHMW plastic Carry-way belt support guides for wear. (If greater than 1/16-inch wear is present on either part that part will be scheduled for replacement.) 9. Reconnect all belting making sure pins are inserted fully. 10. Remove securing screwdrivers/T-handle hex wrenches from belting. 11. Note any deficiencies and generate a work order/report them to supervisor.					
SRT-1/IDLE: RETURN-WAY	43**	**Clean and Check Surfaces and Interior of SRT-1 Idle/Tail End (Power Off)** 1. Remove conveyor under-guarding as required to allow view of SRT-1 Idle End return-way. 2. Clean under side of SRT-1 Idle End.	20	07	546	1365	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		3. Gather loose mail and return to proper mail path. 4. Check all pins are fully installed in the belts. 5. Use a HEPA vacuum cleaner to clean accumulated dirt, dust, or debris from interior of Return-Way. 6. Check return rollers turn freely (may require lifting belt sections off return-way rollers to check) and are evenly spaced. 7. Reinstall any removed conveyor guarding. 8. Note any deficiencies and generate a work order/report them to supervisor.					
SRT-1/IDLE: SENSOR(S)	44	**Clean Sensors (Power Off)** Clean the following sensors: • Tail End Sensor (SRT1.TES.E/R) • Belt Disengagement Sensor (SRT1.BDS.E/R) • Trash Sensor (SRT1.TRS.E/R). 1. Use a HEPA vacuum cleaner to vacuum if required. 2. Spray lint-free towel with locally approved plastic safe cleaner (water), and wipe until clean. 3. Note any deficiencies (scratched/cracked or broken lenses) and generate a work order/report them to supervisor.	15	07	0.5	0.5	
SRT-1/SORT MODULE: AIR CYLINDERS	45**	**Check All Air Cylinders Clevis Pins (Power Off)** 1. Remove all clear Return-way inspection covers from the right side of SRT-1 Idle/Sort Module, 6 in total. 2. Check air lines for brittle conditions or inadequate length causing pulling on connections and replace if found. 3. Check **ALL** air cylinders underneath sorter for worn/missing clevises, clevis pins and clips. (44 locations) 4. Replace all covers. 5. Note any deficiencies and generate a work order/report them to supervisor.	30*	07	1092	2730	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		Note: Time is per module, each Sort Module contains 8 runout chutes, 4 on each side.					
SRT-1/SORT MODULE: BELT	46**	**Check Catenary Sag (Power Off)** **NOTE** **An even number of belt links must be removed to maintain lateral stability (Brick pattern).** 1. Check for catenary sag at first SRT-1 output module. 2. Ideal sag will be between 1 and 2.5-inches from the top of the catenary sag slot. Belt will be visible in monitoring slot. 3. If sag is greater than 2.5-inches, then removal of 2 belt sections is recommended. 4. Note any deficiencies and generate a work order/report them to supervisor.	5	07	546	1365	
SRT-1/SORT MODULE: BELT	47**	**Check S7000 Belt for Elongation/Stretch (Power Off)** 1. Count the rows of belt sections in a Sort Module. a. If count is greater than 27 nothing needs to be done. b. If less than 27 but greater than 26.5 it is recommended to purchase belting and prepare for replacement. c. If 26.5 or fewer sections counted immediate belt replacement is recommended. 2. Make note in logbook of the number of sections in a module and date checked. 3. Note any deficiencies and generate a work order/report them to supervisor.	10	07	1092	2730	
SRT-1/SORT MODULE: BELT	48**	**Clean Belt (Power Off)** 1. Remove any dust and debris from space around belt, its traverse rollers and other belt features. 2. Use a HEPA vacuum cleaner to clean accumulated dirt, dust, or debris from exterior of SRT-1. 3. Use a damp cloth to clean the top surface of the belt.	10*	07	1092	2730	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		4. Ensure all belt-connecting pins are fully installed. **Note: Time is per module, each Sort Module contains 8 runout chutes, 4 on each side.**					
SRT-1/SORT MODULE: CHUTE BELTS	49**	**Clean/Check Chute Belts (Power Off)** 1. Use a HEPA vacuum cleaner to clean top and underside of chute belting. 2. Use a pick tool to clean build up from around rollers. 3. Use a HEPA vacuum cleaner to vacuum/wipe chute under roller belt. 4. Verify that all rollers: a. Roll freely. b. Do not wobble on pin. c. Are not showing cut, nicked, or missing outer rubber coating. 5. Note any deficiencies and generate a work order/report them to supervisor. **Note: Time is per module, each Sort Module contains 4 belted runout chutes, 2 belted runout chutes on each side.**	20*	07	2184	5460	
SRT-1/SORT MODULE: RACK-N-ROLL	50**	**Check All Rack-N-Roll Assemblies (Power Off)** 1. At sort modules, run hand over roller belt, make sure roller belt does not contact carry-way rollers and spins freely. 2. Check all S7000 belt roller assemblies for wear with Go-No-Go gauge NSN 5220-19-000-2795. (Roller diameter can be checked with the end of the gauge while the roller axle wear can be checked by placing the edge of the tool horizontally across the belt rollers and measuring that a clearance between the tool and the belt frame around the rollers is 1/16th inch or more. 3. Check all carrier rollers are in place and are not showing cut, nicked, or missing outer rubber coating. 4. Note any deficiencies and generate a work order/report them to supervisor.	10*	07	1092	2730	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		Note: Time is per module, each Sort Module contains 8 runout chutes, 4 chutes on each side.					
SRT-1/SORT MODULE: RACK-N-ROLL	51**	**Check All Rack-N-Roll Rollers. (Power Off)** **NOTE** **This task requires two people. Time is doubled for staffing purposes. Opening and closing of the SRT-1 S7000 belt are two person steps.** 1. Insert an appropriately sized screwdriver/T-handle hex wrench through two belt locking holes near both Drive end and Idle end sprockets. This secures carry-way belt after being opened and does not allow gravity to pull belt into return-way. 2. Starting at first Sort Module, split the belt at center of the Sort Module. 3. While the belt is split, check all Rack-N-Roll rollers are in place and are not showing cut, nicked, or missing outer rubber coating. 4. Check all Rack-N-Roll roller assemblies for wear with Go-No-Go gauge NSN 5220-19-000-2795. (Roller diameter can be checked with the end of the gauge while the roller axle wear can be checked by placing the edge of the tool horizontally across the rollers and measuring that a clearance between the tool and the frame around the rollers is 3/16th inch or more. 5. Make sure all rollers spin freely. 6. Use a pick tool and a HEPA vacuum to clean around all rollers and roller assemblies. 7. The belt will need to be split at the center point of each Sort Module to access all the Rack-N-Roll assemblies. 8. Measure edge of S7000 roller belt and belt supporting edge of UHMW plastic Carry-way belt support guides for wear. (If greater than 1/16-inch wear is present on either part that part will be scheduled for replacement.) 9. Break belting at center of next Sort Module and reconnect belting at current module making sure the pin is inserted fully. 10. Repeat Steps 3-9 for each Sort Module in the machine.	15*	07	1092	2730	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		11. Reconnect all belting making sure pins are inserted fully. 12. Remove securing screwdrivers/T-handle hex wrenches from belting. 13. Note any deficiencies and generate a work order/report them to supervisor. **Note: Time is per module, each Sort Module contains 8 runout chutes, 4 chutes on each side.**					
SRT-1/SORT MODULE: RETURN-WAY	52**	**Clean and Check Surfaces and Interior of SRT-1 (Power Off).** 1. Remove conveyor under-guarding as required to allow view of return-ways. 2. Clean under side of SRT-1. 3. Gather loose mail and return to proper mail path. 4. Check all pins are fully installed in the belts. 5. Use a HEPA vacuum cleaner to clean accumulated dirt, dust, or debris from interior of Return-Way. 6. Check return rollers turn freely (may require lifting belt sections off return-way rollers to check) and are evenly spaced. 7. Reinstall any removed conveyor guarding. 8. Repeat Steps 1-7 for each Sort Module. 9. Note any deficiencies and generate a work order/report them to supervisor. **Note: Time is per module, each Sort Module contains 8 runout chutes, 4 chutes on each side.**	20*	07	546	1365	
SRT1/SORT MODULE: TAKE-UP ROLLER	53**	**Check take-up roller tension. (136 Bin or Longer Machines Only) (Power Off)** **NOTE** **For machines equipped with the Take-up Roller Assembly, check SRT-1 belt tension at the Take-up Roller Assembly and ignore catenary sag.** 1. Locate the Take-Up Roller assembly under the Main Sort Conveyor near the Drive End.	15	07	546	1365	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		2. Check Take-Up Roller position in observation windows. a. If Center of Take -Up Roller is not above the middle window, removal of belt sections in sets of 2 to correct tension is to be scheduled at next scheduled maintenance down time. b. If the Take-Up Roller is visible in the bottom window IMMEDIATE belt tensioning/shortening by removal of belt sections in sets of 2 is required to avoid damaging of machine. 3. Note any deficiencies and generate a work order/report them to supervisor.					
SRT-1/DRIVE END: BEARINGS	54**	**Grease Shaft Bearings (Power Off)** **CAUTION** **Discard all hazardous materials (both regulated and non-regulated waste), in accordance with all local and national environmental policies.** 1. Lubricate the sprocket shaft bearings, on both sides, with a grease gun and Mobil FM102 grease or equivalent. If the bearings are sealed, take care not to over lubricate the bearing. 2. Clean exposed grease from bearing, fitting, and shaft with locally approved cloths. 3. Check that all mounting hardware and securing set screws are tight. 4. Note any deficiencies and generate a work order/report them to supervisor.	10	07	1092	2730	
SRT-1/DRIVE END: BELT	55**	**Clean Belt (Power Off)** 1. Remove any dust and debris from space around belt, its traverse rollers and other belt features. 2. Use a HEPA vacuum cleaner to clean accumulated dirt, dust, or debris from exterior of SRT-1. 3. Use a damp cloth to clean the top surface of the belt. 4. Check all belt-connecting pins are fully installed.	15	07	1092	2730	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		5. Note any deficiencies and generate a work order/report them to supervisor.					
SRT-1/DRIVE END: BELT	56**	**Check Belt Disengagement from sprocket (Power Off)** 1. At SRT-1 Drive/Head End, run hand over roller belt, make sure roller belt does not contact sprocket and all rollers spin freely. 2. Run hand over roller belt, make sure rollers spin freely. 3. Check all belt rollers are in place and are not showing cut, nicked, or missing outer rubber coating. 4. Note any deficiencies and generate a work order/report them to supervisor.	10	07	42	105	
SRT-1/DRIVE END: BELT GUIDES	57**	**Check All Belt Guides (Power Off)** **NOTE** **This task requires two people. Time is doubled for staffing purposes. Opening and closing of the SRT-1 S7000 belt are two person steps.** 1. Insert an appropriately sized screwdriver/T-handle hex wrench through two belt locking holes near both Drive end and Idle end sprockets. This secures carry-way belt after being opened and does not allow gravity to pull belt into return-way. 2. Split the belt at center of the SRT-1/DRIVE END module. 3. While the belt is split, check that no Belt Guide assemblies are worn to the point that the support brackets can be seen through the guide. 4. Check that sprockets are aligned with openings in belting, evenly spaced, and teeth have a minimum of 1/16th inch wide flats on their tips. 5. Measure edge of S7000 roller belt and belt supporting edge of UHMW plastic Carry-way belt support guides for wear. (If greater than 1/16-inch wear is present on either part that part will need to be scheduled for replacement.) 6. Reconnect all belting making sure pins are inserted fully.	20	07	1092	2730	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		7. Remove securing screwdrivers/T-handle hex wrenches from belting. 8. Note any deficiencies and generate a work order/report them to supervisor.					
SRT-1/DRIVE END: RETURN-WAY	58**	**Clean and Inspect Surfaces and Interior of SRT-1 Drive/Head End (Power Off).** 1. Remove conveyor under-guarding as required to allow view of SRT-1 Drive/Head End return-way. 2. Clean underside of SRT-1 Drive/Head End. 3. Gather loose mail and return to proper mail path. 4. Check all pins are fully installed in the belts. 5. Use a HEPA vacuum cleaner to clean accumulated dirt, dust, or debris from interior of Return-Way. 6. Check return rollers turn freely (may require lifting belt sections off return-way rollers to check) and are evenly spaced. 7. Reinstall any removed conveyor guarding. 8. Note any deficiencies and generate a work order/report them to supervisor.	20	07	546	1365	
SRT-1/DRIVE END: GEAR MOTOR	59**	**Check Gearmotor (Power Off)** **CAUTION** **Discard all hazardous materials (both regulated and non-regulated waste), in accordance with all local and national environmental policies.** 1. Check the motor gear case for oil leaking around seals. 2. Remove any oily buildup from the machine and/or motor gearbox with locally approved oil absorbent cloth and cleaner. 3. Use a HEPA vacuum cleaner to clean accumulated dirt, dust, or debris from the breather on the gear case and the outside of all the drive motor cooling fan covers. 4. Ensure all hardware is tight. 5. Note any deficiencies and generate a work order/report them to supervisor.	10	07	546	1365	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
SRT-1/DRIVE END: SPROCKETS	60**	**Check Sprockets for Tooth Wear (Power Off)** **NOTE** **This task requires two people. Time is doubled for staffing purposes. Opening and closing of the SRT-1 S7000 belt are two person steps.** 1. Insert an appropriately sized screwdriver/T-handle hex wrench through two belt locking holes near both Drive end and Idle end sprockets. This secures carry-way belt after being opened and does not allow gravity to pull belt into return-way. 2. Split the belt on the head end of the sorter. 3. Check that sprockets have no cracks, missing teeth, and flat surfaces at the ends of the teeth at least 1/16th of an inch wide and 1/8th of an inch long. 4. Sprockets need to be aligned with slot on underside of belt. 5. Check sprocket slots on underside of the belt for damage from improper sprocket alignments. 6. Reconnect all belting making sure pins are inserted fully. 7. Remove all screwdrivers/T-handle hex wrenches used to secure carry-way belt. 8. Note any deficiencies and generate a work order/report them to supervisor if any sprocket requires replacement or plastic belting shows damage from improper alignment.	20	07	1092	2730	
SRT-1/END CHUTE: CHUTE BELT	61**	**Clean/Check Chute Belt (Power Off)** 1. Use a HEPA vacuum cleaner to vacuum top and underside of chute belting. 2. Use a pick tool to clean build up from around rollers. 3. Use a HEPA vacuum cleaner to vacuum/wipe chute under roller belt. 4. Verify that all rollers: a. Roll freely. b. Do not wobble on pin.	10	07	2184	5460	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		c. Check all belt rollers are in place and are not showing cut, nicked, or missing outer rubber coating. 5. Note any deficiencies and generate a work order/report them to supervisor.					
SRT-1/END CHUTE: SENSOR(S)	62	**Clean Sensors (Power Off)** Clean: • Cart Present Sensor (SRT1.CPS.E/R) • Divert Verification Sensor (SRT1.DVS.E/R) • Full Lane Sensor (SRT1.FLS.E/R) • Sack Trapped Sensor (SRT1.SRS.E/R) 1. Use a HEPA vacuum cleaner to vacuum if required. 2. Spray lint-free towel with locally approved plastic safe cleaner(water), and wipe until clean. 3. Note any deficiencies and generate a work order/report them to supervisor.	15	07	0.5	0.5	
ENTIRE MACHINE: START UP	63**	**Restore Equipment to Service (Power On)** **Refer to the current Energy Control Procedures (ECP) to restore power to the machine.** 1. Check all personnel are clear of machine. 2. Check all panel doors are shut and all machine guards are installed. 3. At the Panel Board or Machine Disconnect (machine specific), remove Lockout device, and apply power to machine by turning on the Machine Disconnect switch or the Main Breaker within the Panel Board. 4. Apply power to the UPS located on the bottom of the Sort Server cart. 5. Apply power to the following computers in any order. The software will load automatically on each computer. a. Sort Server computer. Press the power button on the front of the Sort Server computer. b. OCR Computer. Press the button on the front of the OCR computer.	10	07	0.5	0.5	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		c. Vitronic VDU system. Flip rocker switch to ON position on underside of CPU. 6. Check Air Compressor is in Run mode. 7. Press green button on compressor control panel					
ENTIRE MACHINE: VERIFY OPERATION	64**	**Check Machine Operation (Power On)** 1. At Sort Server GUI load the maintenance Fan Sort program. 2. Start machine and let system run for 30 seconds. 3. If faults/warnings are present on the GUI, notify supervisor. 4. Stop machine by exiting the Fan Sort on the GUI.	10	07	0.5	0.5	
IND-1: BELT	65**	**Check Belt for Proper Tracking (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on and covers/panels open.** 1. Remove Lower IND-1 Drive end plywood cover. 2. Start machine. 3. Check belt for: a. Belt for missing, damaged, or wobbling rollers. b. Belts are aligned with sprockets. (No visible “Jumping” of belt or audible misalignment.) c. Sprockets (Drive and Idle) are evenly distributed across drive/idle shafts. d. Sidewalls for uneven wear or buildup of plastic dust which will indicate signs of improper tracking. (Finding plastic dust from guides or belting in any location is an indication of belt wearing against a surface.) 4. Stop machine. 5. Replace Lower IND-1 Drive end plywood cover.	20	07	546	1365	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		6. Note any deficiencies and generate a work order/report them to supervisor.					
IND-1: EMERGENCY STOP(S)	66**	**Check Infeed E-Stop Pullcords (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.** **NOTE** **When performing this step, check only one E-Stop Pullcord with machine running. Check opposite side E-Stop Pullcord while machine is stopped.** 1. Load Maintenance **Fan Sort** sortplan on the Sort Server (SS). 2. Verify that system Start button is flashing green (Ready to Start). 3. Start machine by holding the Start button at the Operator Pushbutton Station (OPS) pressed until the horns sound. 4. Allow machine to start running. 5. Pull E-Stop Pullcord on right/left side. 6. Check that the Air Treatment Assembly Dump Valve discharges all air in the system. 7. Verify E-Stop Pullcord functionality. a. The E-Stop Pullcords indicator light is red (flashing). b. All the Stack Lights are solid red. c. Control Power On button is not illuminated. d. The Sort Server HMI displays an E-Stop fault. e. The machine will not start by pushing and holding the System Start button at the OPS for 4 seconds. 8. Push the blue push button on the activated E-Stop Pullcord to reset it. 9. Check the E-Stop Pullcord indicator light turns green and the Control Power On button is flashing.	15	09			M

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		10. Press Control Power On button and verify its light transitions to solid on. 11. The Start button will be flashing now and pressing it once quickly will allow you refresh and clear the faults on the Sort Server HMI. 12. Stack Lights will reset to a green light flashing state. 13. Repeat Steps 3 thru 11 on opposite side. 14. Note any deficiencies and generate a work order/report them to supervisor.					
IND-1: SENSOR(S)	67**	**Check the Over Height Sensor (IND-1.OHS) on the tunnel of IND-1 Conveyor for proper operation (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.** 1. With the sorter running, use a piece of paper or cardboard to block the sensor to test its functionality. a. **Check running functionality.** Blocked less than 30 seconds and then unblocked. 1) The IND-1 Conveyor only will stop immediately. 2) Sorter portion of machine will stay running. 3) No error will be displayed on the Sort Server HMI. 4) Pressing only the Start button on the Operator Pushbutton Station the IND-1 conveyor will restart. b. **Check Jam Functionality**. Blocked for 30 seconds or more. 1) The entire machine will stop. 2) Induction Belt Over-Height Sensor Fault (IND-1.OHS) displays on the Sort Server HMI. 3) The IND Stack Light will be blinking red, amber, and green while blockage is present.	8	09	182	455	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		4) End Chute Stack lights will be blinking red. 5) Machine will not restart with blockage/jam in place. 2. Remove blockage. 3. Push the green, system Start button on the Operator Pushbutton Station for 3 seconds to start the machine again. 4. Stop machine. 5. Note any deficiencies and generate a work order/report them to supervisor.					
DWS-1/BUFFER: BELT	68**	**Verify Belt Tracking and Tensioning (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.** 1. With machine running.: a. Belt needs to be centered on the conveyor bed and the idler roller. b. The belt does not contact conveyor guarding. c. Check belts for fraying and signs of damage. 2. Stop machine. 3. Note any deficiencies and generate a work order/report them to supervisor.	10	07	546	1365	
DWS-1/BUFFER: SENSOR(S)	69**	**Check IND-1 Pre-Cognition Sensor (IND1.PCS) between IND-1 and DWS-1 conveyors for proper operation (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.** 1. Remove left or right window from DWS-1. 2. With the sorter running, use a piece of paper or cardboard to block the IND1.PCS sensor to test its functionality.	12	09	182	455	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		a. **Check running functionality**. Blocked for more than 0.5 seconds and less than 3 seconds. 1) Check that IND-1 belt slows when it is blocked for more than 0.5 seconds and less than 3 seconds. 2) Confirm that the belt will come back up to speed when unblocked. b. **Check Jam Functionality**. Blocked 3 seconds or more. 1) Check if the sensor is blocked for 3+ seconds, the machine will stop. 2) Induction Belt Pre-Cognition Sensor Fault (IND1.PCS) will be displayed on the HMI. 3) Check the IND Stack Light is blinking red, amber, and green after the machine has stopped due to the jam condition. 4) Check the End Chute Stack Lights are blinking red. 5) Machine will not restart with blockage/jam in place. 3. Remove blockage. 4. Replace removed window. 5. Push the green, system Start button on the Operator Pushbutton Station for 3 seconds to start the machine again. 6. Stop machine. 7. Note any deficiencies and generate a work order/report them to supervisor.					
DWS-2/VITRONIC CAMERA ALIGNMENT	70**	**Camera Alignment (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.** 1. Perform Vitronic Camera Alignment per MS-305 SIPS Handbook.	30	09	546	1365	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
DWS-2/SCALE: BATTERY	71**	**Replace Battery in OCS Cabinet (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.** **WARNING** **Before performing the following steps, don the appropriate EWP PPE and set up barricades as required by the current Electrical Work Plan (EWP) MMO.** **NOTE** **If battery is replaced with power down, configuration settings must be reloaded.** 1. Don EWP PPE. 2. Open OCS cabinet. (Requires powering cabinet off.) 3. Turn power on to OCS Cabinet. 4. Replace Battery in OCS cabinet with CR2450N. (Cabinet must be powered on when replacing battery.) 5. Turn power Off to OCS Cabinet. 6. Close OCS Cabinet 7. Turn power On to OCS Cabinet. 8. Doff EWP PPE. 9. Check scale reports weight to Sort Server during a Fan Sort. 10. Note any deficiencies and generate a work order/report them to supervisor.	25	09	2184	5460	
DWS-2/SCALE: BELT	72**	**Verify Belt Tracking and Tension. (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.** 1. With machine running: a. Belt needs to be centered on the conveyor bed and the idler roller.	10	07	546	1365	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		b. The belt does not contact conveyor guarding. c. Check belts for fraying and signs of damage. 2. Stop machine. 3. Note any deficiencies and generate a work order/report them to supervisor.					
DWS-2/SCALE: CALIBRATE	73**	**Calibrate Scale (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.** **WARNING** **Steps contained in this bulletin may require the use of Electrical Work Plan (EWP) Personal Protective Equipment (PPE). Refer to the current EWP MMO for appropriate EWP PPE and barricade requirements.** 1. Check that after, a thorough cleaning and scale belt is clear of foreign objects, that the scale display reads **zero**. 2. If scale is not reading Zero, press and hold the **F3** button until the display shows **Zero**. (Scale must read zero before proceeding. Scale offset adjustment may be required.) 3. Place a 20 lb. test weight on the scale and verify that scale displays **20 lb**. 4. If scale does not display 20 lb., then a perform a scale calibration. Otherwise proceed to Step 6. 5. Scale Calibration: a. Turn the power off to the Scale Control Panel. b. Don EWP PPE. c. Open Scale Control Panel. d. Set Scale **Calibration Locking** switch to **off**. e. Close Scale Control Panel. f. Turn the power on the Scale Control Panel.	30	09	546	1365	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		g. On the Main screen press the **F1** key (Lower left corner). h. When the keypad pops up, enter **9632** and press the **F8** or **Enter** key. i. Check that **Level 3** shows in the Upper left corner of display. j. Press **F8** (tools symbol). k. Check that **Cal. Locking device off** is displayed in the active weight display window of the screen. l. Check **Service** in the center of the bar on the top of screen. m. Press **F3** (Scale symbol) button. n. Check **Scale** in the center of the bar at the top of the screen. o. Press the **F6** (Calibration Weight) button. p. Follow on screen instructions using a calibration weight. q. Press the **F1** (Exit) button in the lower left of the screen when done with all onscreen instructions. r. Power off Scale Control Panel. s. Open Scale Control Panel. t. Turn **Calibration Locking** switch **on**. u. Close Scale Control Panel. v. Turn Scale Control Panel on. 6. Doff EWP PPE. 7. Note any deficiencies and generate a work order/report them to supervisor.					
DWS-2/SCALE: OFFSET	74**	**Set Scale Offset (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.**	20	09	546	1365	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

		WARNING **Steps contained in this bulletin may require the use of Electrical Work Plan (EWP) Personal Protective Equipment (PPE). Refer to the current EWP MMO for appropriate EWP PPE and barricade requirements.** **NOTE** **If scale sill will not Zero, then an "offset" calibration will need to be performed.** 1. Offset Calibration: a. Turn the power off to the Scale Control Panel. b. Don EWP PPE. c. Open Scale Control Panel. d. Set Scale **Calibration Locking** switch to **off**. e. Close Scale Control Panel. f. Turn the power on the Scale Control Panel. g. On the Main screen press the **F1** key (Lower left corner). h. When the keypad pops up, enter **9632** and press the **F8** or **Enter** key. i. Check that **Level 3** shows in the Upper left corner of display. j. Press **F8** (tools symbol). k. Check that **Cal. Locking device off** is displayed in the active weight display window of the screen. l. Check **Service** in the center of the bar on the top of screen. m. Press **F3** (Scale symbol) button. n. Check **Scale** in the center of the bar at the top of the screen. o. Press the **F5** (Offset) button. p. Follow on screen instructions to set Offset. q. Press the **F1**(Exit) button in the lower left of the screen when done with all onscreen instructions. r. Power off Scale Control Panel. s. Open Scale Control Panel. t. Turn Calibration Locking switch on.					

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		u. Close Scale Control Panel. v. Turn Scale Control Panel on. 2. Doff EWP PPE. 3. Note any deficiencies and generate a work order/report them to supervisor.					
DWS-2/SCALE: SENSOR(S)	75**	**Check Sensors for Proper Action (Power On)** Check each of the following sensors with the steps below. • DWS-2 Width Array (DWS.DIM.W emitter and receiver) • DWS-2 Height Array (DWS.DIM.H emitter and receiver) • DWS-2 Product Jam Sensor (DWS.PJS **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.** 1. With the sorter running, use a piece of cardboard to block the sensor, creating a jam. 2. Check: a. The machine stops immediately. b. Width Array Jam (DWS.DIM.W), Height Array Jam (DWS.DIM.H), or Product Jam Sensor is displayed on the HMI. c. The IND-1 Stack Light is blinking red, amber, and green. d. The SRT-1/End Chute Stack Lights are blinking red. e. Machine will not restart with blockage/jam in place. 3. Remove blockage. 4. Push the green, system Start button on the Operator Pushbutton Station for 3 seconds to start the machine again. 5. Stop machine. 6. Note any deficiencies and generate a work order/report them to supervisor.	15	09	182	455	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
DWS-2/SCALE: SENSOR(S)	76**	**Check DWS Height Tower Array (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.** **NOTE** **This sensor has NO jam functionality, only Height dimension for camera focus.** 1. It is not necessary to run the system to check for proper action on the Height Tower Array for Vitronic Camera focus, use a piece of paper or cardboard to block the sensor. a. The green LED represents that power is applied to the array. b. The amber LED will be lit representing a package present. c. The red LED will only illuminate if there is an array fault. 2. Note any deficiencies and generate a work order/report them to supervisor.	2	07	182	455	
DWS-2/SCALE/DIM: VALIDATION	77**	**Check Weigh and Dimension Accuracy. (Power On)** 1. Check the Weigh Scale system and Dimension Measurement system for accuracy using current MMO SIPS Scale and Dimension Validation. 2. Note any deficiencies and generate a work order/report them to supervisor.	10	07	0.5	0.5	
DWS-2/SCALE: ZERO	78**	**Zero Scale (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.** **WARNING** **Steps contained in this bulletin may require the use of Electrical Work Plan (EWP) Personal Protective Equipment (PPE). Refer to the current EWP MMO for appropriate EWP PPE and barricade requirements.**	20	07	0.5	0.5	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		1. Check that after, a thorough cleaning and scale belt is clear of foreign objects, that the scale display reads zero. 2. If scale is not reading Zero, Press and hold the **F3** button until the display shows Zero. 3. If scale sill will not Zero, then an “offset”; calibration will need to be performed. 4. Note any deficiencies and generate a work order/report them to supervisor.					
IFS-1/INCLINE: BELT	79**	**Check Belt Tracking and Tension (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.** 1. With Machine running. 2. Belt needs to be centered on the conveyor bed and the idler roller. 3. The belt does not contact conveyor guarding. 4. Check belts for fraying and signs of damage. 5. Stop machine. 6. Note any deficiencies and generate a work order.	10	07	546	1365	
IFS-1/INCLINE: EMERGENCY STOP(S)	80**	**Adjust Emergency Pullcord Tension If Needed. (Power On)** 1. Check green adjustment arrow is aligned with reference mark in adjustment window. 2. If out of alignment: a. Loosen jam nut. b. Turn hex coupler until green adjustment arrow is aligned with reference mark on adjustment window. c. Tighten jam nut securely. 3. Test E-Stop Pullcord by pulling cord. 4. Reset E-Stop Pullcord by pressing blue button. 5. Note any deficiencies and generate a work order/report them to supervisor.	15	09			M

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
IFS-2/CURVE: BELT	81**	**Verify Belt Tracking and Tension (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.** 1. With machine running: 2. Belt needs to be centered on the conveyor bed and the idler roller. 3. Belt does not contact conveyor guarding. 4. Check belts for fraying and signs of damage. 5. Stop machine. 6. Note any deficiencies and generate a work order.	10	07	546	1365	
IFS-2/CURVE: EMERGENCY STOP(S)	82**	**Check All IFS-2 E-Stops (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.** **NOTE** **When performing this step, check only one emergency stop switch with machine running. Check all other E-Stop switches while machine is stopped.** 1. Load Maintenance **Fan Sort** sortplan on the Sort Server. 2. Check that System Start button is flashing green (Ready to Start). 3. Start Machine by holding the Start button at the Operator Pushbutton Station pressed until the horns sound. 4. Allow machine to start running. 5. Push an IFS-2 E-Stop button. 6. Check E-Stop functionality: a. If running, machine will stop immediately. b. Check button lights up indicating it is pressed.	12	09			M

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		c. Check Stack Lights all indicate solid red. d. Check the Guard Link Tap for this E-Stop displays solid red. e. Check that the other Guard Link Taps along the same side of the machine are flashing a green light on top with a solid red light on bottom. f. Check the Sort Server computer displays an E-Stop fault. If **Fault Status** Pop-up is not active on the HMI display, click on the red E-Stop bit status line in the upper right corner of the screen. g. Check the machine will not start by holding the Start button pressed for 4 seconds. 7. Pull the push button at the E-Stop out. This will restore all the Guard Link Taps to solid green lights on top and bottom. 8. Reset Control Power at Operator Pushbutton Station. 9. Reset Machine fault by pressing the Start button. (If you do not do this step the next step will fail!) 10. Refresh Sort Server computer fault pop-up and fault will clear. 11. Repeat Steps 5 thru 10 for each E-Stop on IFS-2. 12. End Maintenance sortplan. 13. Note any deficiencies and generate a work order/report them to supervisor.					
IFS-2/CURVE: SENSOR(S)	83**	**Check IFS-2 Tail End Sensor (IFS-2.TES) between IFS-1 and IFS-2 conveyors for proper operation (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.** 1. Remove left or right window from DWS-1. 2. With the sorter running, use a piece of cardboard to block the IND1.PCS sensor to test its functionality.	10	07	182	455	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		3. Check: a. Machine stops instantly. b. IFS Tail End Sensor Fault (IFS-2.TES) will be displayed on the HMI. c. The IND Stack Light is blinking red, amber, and green after the machine has stopped due to the jam condition. d. The End Chute Stack Lights are blinking red. e. Machine will not restart with blockage/jam in place. 4. Remove blockage. 5. Replace removed window. 6. Push the green, system Start button on the Operator Pushbutton Station for 3 seconds to start the machine again. 7. Stop machine. 8. Note any deficiencies and generate a work order/report them to supervisor.					
AIR TREATMENT ASSEMBLY: AIR DUMP VALVE	84**	**Perform Operational Check of Air Dump Valve (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.** 1. With Air Treatment Assembly pressurized. a. Press a nearby E-Stop and check: 1) Exhaust silencer does not drip or spray oil or water while system is draining air. 2) Regulator Pressure gauge drops to 0 psi. 3) Air Pressure Sensor indicator drops to 0 psi. a. Reset E-Stop. b. Press Control Power On at the Operator Pushbutton Station and check.	7	07	182	455	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		1) Regulator pressure gauge reads 50 ± 3 psi. 2) Air pressure sensor indicator reads 50 ± 3 psi. c. Note any deficiencies and generate a work order/report them to supervisor.					
AIR TREATMENT ASSEMBLY: ALL	85**	**Perform Leak/Condition check on Air Treatment Assembly (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.** **Check Condition of air manifold assembly (Usually located close to the SRT-1 Idle End.)** 1. Check system is pressurized. 2. Check indication of 50 ± 3 psi on pressure regulator gauge. (Adjust if needed.) 3. Check pressure reads 50 ± 3 psi on Air Pressure Sensor. 4. Listen for hissing or leaking air. 5. Check for oil or water signs or build-up/dripping around or near entire assembly paying close attention to the exhaust silencers and the regulator filter bowl/reservoir. 6. Note any deficiencies and generate a work order/report them to supervisor.	10	07	42	105	
AIR TREATMENT ASSEMBLY: CUT-OFF VALVE	86**	**Perform Operational Check of Air Cut-Off Valve (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.** 1. With Air Treatment Assembly pressurized. a. Turn cutout valve off and check. 1) Exhaust silencer does not drip or spray oil or water while system is draining air.	7	07	182	455	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		2) Regulator Pressure gauge drops to 0 psi. 3) Air Pressure sensor indicator drops to 0 psi. b. Turn cutout valve back on and check. 1) Regulator gauge reads 50 ± 3 psi. 2) Air Pressure sensor indicator reads 50 ± 3 psi. 2. Note any deficiencies and generate a work order/report them to supervisor					
AIR TREATMENT ASSEMBLY: SENSOR(S)	87**	**Perform Operational Check of Air Pressure Sensor (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.** 1. Start machine. 2. Turn Air Cut-Off Valve off and check: a. When APS indicator drops below 40 psi the machine stops running. b. The HMI on the Sort Server indicates an **Air Pressure Out of Range** fault. c. Machine will not start after pressing the Start button for 4 seconds. (System may indicate with lights and horns that it is starting but the machine will not start.) d. Control Power On button at Operator Pushbutton Station will not reset. 3. Turn Air Cut-Off Valve on and check: a. APS indicator returns to reading 50 ± 3 psi. b. Control Power On button at Operator Pushbutton Station will reset. c. **Air Pressure Out of Range** fault on HMI can be cleared by refreshing. d. Machine will start if Start button is pressed for 3 or more seconds.	7	09	182	455	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		4. Note any deficiencies and generate a work order/report them to supervisor.					
SRT-1/IDLE: EMERGENCY STOP(S)	88**	**Check All SRT-1: IDLE END E-Stops (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.** **NOTE** **When performing this step, check only one emergency stop switch with machine running. Check all other E-Stop switches while machine is stopped.** 1. Load Maintenance **Fan Sort** sortplan on the Sort Server. 2. Check that System Start button is flashing green (Ready to Start). 3. Start Machine by holding the Start button at the Operator Pushbutton Station pressed until the horns sound. 4. Allow machine to start running. 5. Push an SRT-1: IDLE END E-Stop button. 6. Check E-Stop functionality: a. If running, machine will stop immediately. b. E-Stop button lights up indicating it is pressed. c. All Stack Lights indicate solid red. d. The Guard Link Tap for this E-Stop displays solid red. e. All other Guard Link Taps along the same side of the machine are flashing a green light on top with a solid red light on bottom. f. The Sort Server HMI displays an E-Stop fault. If **Fault Status** Pop-up is not active on the HMI display, click on the red E-Stop bit status line in the upper right corner of the screen. g. The machine will not start by holding the Start button pressed for 4 seconds.	10	09			M

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		7. Pull the push button at the activated E-Stop out. This will restore all the Guard Link Taps to solid green lights on top and bottom. 8. Reset Control Power at Operator Pushbutton Station. 9. Reset Machine fault by pressing the Start button. (If you do not do this step the next step will fail!) 10. Refresh Sort Server HMI fault pop-up and fault will clear. 11. Repeat Steps 5 thru 10 for each E-Stop on SRT-1: IDLE END. 12. Note any deficiencies and generate a work order/report them to supervisor.					
SRT-1/IDLE: SENSOR(S)	89**	**Check Sensors for Proper Action (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.** Check each of the following sensors with the steps below. • SRT-1 Idle End Belt Disengagement Sensor (SRT1.BDS) at the tail end of SRT1 • SRT-1 Idle End Trash Sensor (SRT1.TRS) • SRT-1 Tail End Sensor (SRT1.TES 1. With the sorter running, use a piece of cardboard to block the sensor, creating a jam. 2. Check Jam Functionality. a. Machine stops immediately. b. Sorter 1 Belt Disengagement Sensor Fault (SRT1.BDS), Sorter 1 Tail End Sensor Fault (SRT1.TES), or Sorter 1 Trash Sensor Fault (SRT1.TRS) appropriate to the jam induced is displayed on the HMI. c. IND-1 Stack Light is blinking red, amber, and green. d. The SRT-1 End Chute Stack Lights are blinking red.	10	09	182	455	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		e. Control Power On button is illuminated white. f. Machine will not start until jam situation is cleared after stopping. 3. Remove the obstruction causing the jam. 4. Push the green system Start button on Operator Pushbutton Station to start machine again. 5. Repeat Steps 1-4 for each sensor. 6. Stop machine. 7. Note any deficiencies and generate a work order/report them to supervisor.					
SRT-1/IDLE: SENSOR(S)	90**	**Check SRT-1 Tail End Encoder (SRT1.ENC) Sensor at the tail end of SRT-1 (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.** 1. Check Functionality Idle. a. Green LED on encoder is on or off solid. (Stop location dependent.) b. Amber LED on encoder is not flashing. c. Amber LED on encoder is not on solid. 2. Check Functionality Running. a. Start machine. b. Green LED on encoder is on solid. c. Amber LED on encoder is not flashing. d. Amber LED on encoder is not on solid. e. Stop machine. 3. Check input X5 transition on SRT-1.IOL.IDLE module. (Solid green while running and flickers to solid on or off when machine is starting or stopping) 4. Note any deficiencies and generate a work order/report them to supervisor.	10	09	182	455	
SRT-1/SORTER: AIR	91**	**Perform Leak Check (Power On)** 1. Check air system is pressurized.	30	07	182	455	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		2. Start at left side of IFS-1 conveyor and walk around machine while listening for hissing or leaking air. 3. Check air pressure on the air manifold assembly below the SRT-1 Idle End. a. Check pressure is set to 50 ± 3 psi on pressure regulator gauge. b. Check there is no drop in air pressure. Monitor for a minimum of 2 minutes. 4. Check separator filter to ensure automatic drain is not clogged. a. Don eye and ear protection. b. With a small container underneath filter, turn nozzle on bottom of filter counterclockwise a quarter-turn to release water. c. Turn nozzle clockwise until it stops to close drain. d. Doff eye and ear protection. 5. Note any deficiencies and generate a work order/report them to supervisor.					
SRT-1/SORTER: BELT	92**	**Check Belt Tracking and Sprocket Alignment (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.** 1. Start machine. 2. Check belt for: a. Missing, or wobbling rollers, rollers with nicks cuts or missing rubber coatings. b. Alignment with idle/drive sprockets. (No visible “Jumping” of belt, or audible misalignment.) c. Sprockets are evenly distributed across idle/drive shafts.	15	07	546	1365	

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		d. Sidewalls for uneven wear or buildup of plastic dust which will indicate signs of improper tracking. (Finding plastic dust from guides or belting in any location is an indication of belt wearing against a surface.) 3. Stop machine. 4. If belt tracking is suspect, power down and lockout machine and perform the following: a. Measure distance between edge of belt and conveyor sideguard or UHMW strip. Belt will be relatively centered. b. If belting is found to be wearing on one side, or is too close to side guarding or UHMW, the head end sprocket requires adjustment. 5. Note any deficiencies and generate a work order/report them to supervisor.					
SRT-1/SORTER: RACK-N-ROLL	93**	**Check SRT-1 Rack-N-Roll for proper De-Activation (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.** 1. Start machine. 2. With machine running place a package on the left side of the SRT-1 belt at the SRT-1/IDLE module downstream of the Tail End Sensor (TES). 3. Check that the package travels straight to the End Chute without any change in path. 4. Make note of any chute where the package deviates from its course. 5. Repeat Steps 2 through 4 placing the package in the center and again on the right side of belt. 6. Note any deficiencies and generate a work order/report them to supervisor.	20	09	42	105	

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
SRT-1/SORTER: SOLENOID VALVE BANKS	94**	**Perform Leak Check and Inspect Rack and Roll Activation (Power On)** **NOTE** **Start at left side of Tail End (IDLE) Module and proceed toward End Chute (DRIVE) Module.** 1. Check air system is pressurized. 2. Test Rack and Roll for proper action at Solenoid Valve Bank (Note: Quarter turn of the blue button will lock rack in active position.) a. Press blue button on the Solenoid Valve Bank and verify proper operation of each pneumatic component (cylinders, pop-up diverts, etc.). b. Listen for leaks while cylinders are activated. c. Check that rack (blue button) is not locked pressing it in, gently turning it counterclockwise to its stop, then releasing it. 3. Repeat Step 2 for each Solenoid Valve Bank in system. 4. Note any deficiencies and generate a work order/report them to supervisor. **Note: Time is per module, each Sort Module contains 8 runout chutes, 4 on each side.**	5*	07	546	1365	
SRT-1/SORT MODULE: EMERGENCY STOP(S)	95**	**Check All SRT-1: Sort Module E-Stops (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.** **NOTE** **When performing this step, check only one emergency stop switch with machine running. Check all other E-Stop switches while machine is stopped.** 1. Load Maintenance **Fan Sort** sort plan on the Sort Server.	4*	09			M

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		2. Check that System Start button is flashing green (Ready to Start). 3. Start Machine by holding the Start button at the Operator Pushbutton Station pressed until the horns sound. 4. Allow machine to start running. 5. Push an SRT-1: SORT MODULE E-Stop button. 6. Check E-Stop functionality. a. If running, machine will stop immediately. b. E-Stop button lights up indicating it is pressed. c. All Stack Lights indicate solid red. d. The Guard Link Tap for this E-Stop displays solid red. (Located under the run-out chutes.) e. All other Guard Link Taps along the same side of the machine are flashing a green light on top with a solid red light on bottom. f. The Site Server HMI displays an E-Stop fault. If **Fault Status** Pop-up is not active on the HMI display, click on the red E-Stop bit status line in the upper right corner of the screen. g. The machine will not start by holding the Start button pressed for 4 seconds. 7. Pull the push button at the E-Stop out. This will restore all the Guard Link Taps to solid green lights on top and bottom. 8. Reset Control Power at Operator Pushbutton Station. 9. Reset Machine fault by pressing the Start button. (If you do not do this step the next step will fail!) 10. Refresh Sort Server HMI fault pop-up and fault will clear. 11. Repeat Steps 5 thru 10 for each E-Stop on SRT-1: SORT MODULE.					

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		12. Repeat Step 11 for all Sort Modules on machine. 13. End Maintenance sortplan. 14. Note any deficiencies and generate a work order/report them to supervisor. **Note: Time is per module, each Sort Module contains 8 runout chutes, 4 on each side.**					
SRT-1/DRIVE END: EMERGENCY STOP(S)	96**	**Check All SRT-1: DRIVE END E-Stops (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.** **NOTE** **When performing this step, check only one emergency stop switch with machine running. Check all other E-Stop switches while machine is stopped.** 1. Load Maintenance **Fan Sort** sort plan on the Sort Server. 2. Check that System Start button is flashing green (Ready to Start). 3. Start Machine by holding the Start button at the Operator Pushbutton Station pressed until the horns sound. 4. Allow machine to start running. 5. Push an SRT-1: DRIVE END E-Stop button. 6. **Check E-Stop functionality:** a. If running, machine will stop immediately. b. E-Stop button lights up indicating it is pressed. c. All Stack Lights indicate solid red. d. The Guard Link Tap for this E-Stop displays solid red.	10	09			M

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		e. All other Guard Link Taps along the same side of the machine are flashing a green light on top with a solid red light on bottom. f. The Sort Server HMI displays an E-Stop fault. (If **Fault Status** Pop-up is not active on the HMI display, click on the red E-Stop bit status line in the upper right corner of the screen.) g. The machine will not start by holding the Start button pressed for 4 seconds. 7. Pull the push button at the E-Stop out. 8. This will restore all the Guard Link Taps to solid green lights on top and bottom. 9. Reset Control Power at Operator Pushbutton Station. 10. Reset Machine fault by pressing the Start button. (If you do not do this step the next step will fail!) 11. Refresh Sort Server HMI fault pop-up and fault will clear. 12. Repeat Steps 5 thru 11 for each E-Stop on SRT-1: DRIVE END. 13. End Maintenance sortplan. 14. Note any deficiencies and generate a work order/report them to supervisor.					
SRT-1/END CHUTE: EMERGENCY STOP(S)	97**	**Check All SRT-1: END CHUTE E-Stops (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.** **NOTE** **When performing this step, check only one emergency stop switch with machine running. Check all other E-Stop switches while machine is stopped.** 1. Load Maintenance **Fan Sort** sort plan on the Sort Server.	15	09			M

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		2. Check that System Start button is flashing green (Ready to Start). 3. Start Machine by holding the Start button at the Operator Pushbutton Station pressed until the horns sound. 4. Allow machine to start running. 5. Push an SRT-1: END CHUTE E-Stop button. 6. **Check E-Stop functionality:** a. If running, machine will stop immediately. b. E-Stop button lights up indicating it is pressed. c. All Stack Lights indicate solid red. d. The Guard Link Tap for this E-Stop displays solid red. (Located under the run-out chutes.) e. All other Guard Link Taps along the same side of the machine are flashing a green light on top with a solid red light on bottom. f. The Sort Server HMI displays an E-Stop fault. (If **Fault Status** Pop-up is not active on the HMI display, click on the red E-Stop bit status line in the upper right corner of the screen.) g. The machine will not start by holding the Start button pressed for 4 seconds. 7. Pull the push button at the E-Stop out. 8. This will restore all the Guard Link Taps to solid green lights on top and bottom. 9. Reset Control Power at Operator Pushbutton Station. 10. Reset Machine fault by pressing the Start button. (If you do not do this step the next step will fail!) 11. Refresh Sort Server HMI fault pop-up and fault will clear. 12. Repeat Steps 5 thru 11 for each E-Stop on SRT-1: END CHUTE.					

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		13. Note any deficiencies and generate a work order/report them to supervisor.					
SRT-1/END CHUTE: SENSOR(S)	98**	**Check SRT-1 /End Chute Sack Trap Sensor (SRT1.STS) at the Drive/Head End of SRT1 (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.** 1. With the sorter running, use a piece of paper or cardboard to block the sensor, creating a jam. 2. **Check Jam functionality:** a. The SRT-1 Conveyor stops after 5 seconds. b. Sack Trap Sensor jam is displayed on the HMI. c. The IND-1 Stack Light are blinking red. d. The SRT-1 End Chute Stack Lights are blinking red, amber, and green. e. Control power light indicator is illuminated white. f. Machine will not start until jam situation is cleared after stopping. 3. Remove the obstruction causing the jam. 4. Push the green system Start button on Operator Pushbutton Station to start machine again. 5. Stop Machine 6. Note any deficiencies and generate a work order/report them to supervisor.	7	09	182	455	
SRT-1/END CHUTE: SENSOR(S)	99**	**Check SRT-1/End Chute Full Line Sensor (SRT1.FLS) at the Drive End of SRT-1 (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.**	7	09	182	455	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		1. With the sorter running, use a piece of paper or cardboard to block the sensor creating a Full Line End Chute situation. 2. **Check functionality:** a. The SRT-1 Conveyor stops after 10 seconds. b. End Chute Full Line Sensor fault is displayed on the HMI. c. The IND-1 Stack Light are blinking red. d. The SRT-1 End Chute Stack Lights are blinking red, amber, and green. e. Control Power On button is illuminated white. f. Machine will not start until the Full Line situation is cleared after stopping. 3. Remove the obstruction causing the jam. 4. Push the green system Start button on Operator Pushbutton Station to start machine again. 5. Stop machine. 6. Note any deficiencies and generate a work order/report them to supervisor.					
SRT-1/END CHUTE: SENSOR(S)	100**	**Check SRT-1 End Chute Cart Present Sensor (SRT1.CPS) at the end cage of SRT1 (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.** 1. With the machine running, remove container to check the container present sensor. 2. **Check functionality:** a. The machine will stop after 3 seconds. b. Sorter 1 Cart Presence Sensor Fault (SRT1.CPS) is displayed on the HMI. c. IND-1 Stack Light is blinking red. d. The SRT-1 End Chute Stack Lights are blinking red, amber, and green.	7	09	182	455	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		e. Control power light indicator is illuminated white. f. Machine will not start without Cart Present. 3. Replace Cart. 4. Push the green system Start button on Operator Pushbutton Station to start machine again. 5. Stop machine. 6. Note any deficiencies and generate a work order/report them to supervisor.					
SRT-1/END CHUTE: SENSOR(S)	101**	**Check SRT-1/End Chute Discharge Verification Sensor (SRT1.DVS) at the Drive End of SRT-1 (Power On)** **WARNING** **Activities in this bulletin require work to be performed with the equipment powered on. Be cautious when working around or on equipment when power has been applied.** 1. With the sorter running, use a piece of paper or cardboard to block the sensor creating jam situation. 2. **Check Jam functionality:** a. The SRT-1 Conveyor stops after 3 seconds. b. End Chute Divert Verification Jam fault is displayed on the HMI. c. The IND-1 Stack Light are blinking red. d. The SRT-1 End Chute Stack Lights are blinking red, amber, and green. e. Control Power On button is illuminated white. f. Machine will not start until jam situation is cleared after stopping. 3. Remove the obstruction causing the jam. 4. Push the green system Start button on Operator Pushbutton Station to start machine again.	7	09	182	455	

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		5. Stop machine. 6. Note any deficiencies and generate a work order/report them to supervisor.					
SORT SERVER CART: SORT SERVER	102	**Check Sort Server HMI** **NOTE** **Task to be performed a minimum of twice during operational tours.** 1. View Sort Server computer sort status screen, and latest **SORLog** report files under the report button in the lower right corner of the screen, for production totals and rejects to identify abnormal performance such as low read rate, excessive mechanical rejects, excessive jams, low throughput, etc. 2. View the latest EventLog file from the ADUSViewer application on the Sort Server desktop. 3. Return Sort Server to Operations HMI screen. 4. Check Machine Bin Status diagram at bottom of screen for excessive “FULL” or “SWEEPING” status bins. 5. Make note in logbook, • Observer’s Name • Date and Time • Machine Throughput • Number of bins being/needing swept	10	10	42	105	
FINAL-CLEANUP	103**	**Clean Up** 1. Ensure all tools, lubricants, rags, etc., are removed from the work area. 2. Note any deficiencies and generate a work order/report them to supervisor.	15	All			

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

ATTACHMENT 3

SIPS MASTER CHECKLIST

09-SIPS-XX-001-M

OPERATIONAL MAINTENANCE (OM)

Time Total: (###) minutes

U.S. Postal Service Maintenance Checklist	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	9	S	I	P	S					X	X	0	0	1	M
Equipment Nomenclature Single Induction Package Sorter	Equipment Model										Bulletin Filename mm23000		Occurrence **eCBM**			

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
SAFETY STATEMENT	1	**COMPLY WITH ALL SAFETY PRECAUTIONS.** Disconnect power and apply lockouts when required by this instruction. Refer to current local lockout procedures to properly shut down and lock out this machine. 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. **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 on optical equipment only when other cleaning methods cannot be used. Report safety deficiencies to your supervisor immediately upon detection. **WARNING FOR EWP/PPE:** Steps contained in this bulletin may require the use of Electrical Work Plan (EWP) Personal Protective Equipment (PPE). Refer to the current EWP MMO or appropriate EWP PPE and barricade requirements. **WARNING FOR SDS:** Various products requiring 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 to all employees. When reordering such a product, it is suggested that current SDS be requested. Refer to SDS for appropriate personal protective equipment.	1	All			

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
ENTIRE MACHINE: VERIFY OPERATION	2	**Monitor equipment condition.** **NOTE** **Task to be performed a minimum of twice during operational tours.** 1. Check maintenance logbook for any outstanding issues. 2. Ask operators (feeders and sweepers) and operations supervisor if they are aware of any equipment problems. 3. Check reported problems. 4. While machine is running and sorting mail check the Air Pressure Sensor to read 42-58psi with minimal fluctuation for 2 minutes minimum. 5. Walk Machine listening for: a. Noisy Bearings b. Noisy S7000 belt at Tail End and Drive End sprockets. Possible Disengagement. c. Air leaks along sort sides of machine. d. Abnormal noises during diverts. banging louder or quieter than nearby Rack and Rolls, hissing, missed divert of 1 assembly in a cluster, etc. 6. Check Photo eye transitions while mail passes for full changes of state with no flickering between packages. a. Pre-Cognition Sensor IND-1 b. Dimension Height Array DWS-2 c. Dimension Width Array DWS-2 d. Dimension Height Tower DWS-2 e. Product Jam Sensor DWS-2 f. Tail End Sensor IFS-2/Curve (If equipped.) g. Tail End Sensor (TES)Tail End Module h. Discharge Verify Sensor End Chute/Drive Module i. Full Line Sensor End Chute/Drive Module 7. Note deficiencies in logbook.	15	09			T

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		8. Work with Operations and Maintenance Managements to schedule a time to repair deficiencies found.					

Tasks marked with one asterisk after the time required are per units tasks
Tasks marked with two asterisks after the item number are critical tasks