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

Maintenance Management Order

SUBJECT: PM Guidelines for Automated Package Processing Systems (Update)

DATE: August 9, 2010

NO: MMO-085-10

TO: All APPS Offices
All Area Offices

FILE CODE: R3
wbro:mm10086ad

MAINTENANCE MANAGEMENT ORDER

This Maintenance Management Order (MMO) provides Operational, Predictive, and Preventive Maintenance Guidelines for the Automated Package Processing System (APPS) and supersedes MMO-073-04, dated October 8, 2004, and MMO-004-07, dated January 29, 2007.

The workhours indicated in the workload estimate (Attachment 1) are based on a 20-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 Material Safety Data Sheets (MSDS) may be utilized during the performance of the procedures in this bulletin. Ensure the current MSDS for each product used is on file and available to all employees. When reordering such a product, it is suggested that current MSDS be requested. Refer to MSDS for appropriate personal protective equipment.

MAINTENANCE MANAGEMENT ORDER

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.

Direct any questions or comments concerning this bulletin to the HelpDesk, Maintenance Technical Support Center, P.O. Box 1600, Norman OK 73070-1600; telephone FTS 2000 (405) 573-2123 or toll free (800) 366-4123.

MAINTENANCE MANAGEMENT ORDER

Robert E. Albert
Manager
Maintenance Technical Support Center
Maintenance Policies and Programs

Attachments:

1. Summary of Workload Estimate
2. Master Checklist: 03-APPS-AA-001-M
3. Operational Maintenance: 09-APPS-AA-001-M

ATTACHMENT 1

SUMMARY

WORKLOAD ESTIMATE

FOR

APPS SYSTEM

MAINTENANCE MANAGEMENT ORDER

System Configurations[1]				Operation	Routine Servicing Per Machine (hrs/yr)	Repair Time[3] Per Machine (hrs/yr)	Total Servicing Time Per Machine (hrs/yr)	Non-Productive Time[4] Per Machine (hrs/yr)	Operational Maintenance Time[2] Per Machine (hrs/yr)	Total Time Per Machine (hrs/yr)
Site Name	Machine ID	Sides	Bins							
ALBANY	364418	1	152	6 day[5]	1457	437	1894	95	279	2268
		1	152	7 day[5]	1700	510	2210	111	326	2647
ALBUQUERQUE	342760	1	152	6 day[5]	1435	431	1866	93	279	2238
		1	152	7 day[5]	1674	502	2176	109	326	2611
ANAHEIM	396441	2	208	6 day[5]	2446	734	3180	159	417	3756
		2	208	7 day[5]	2854	856	3710	186	486	4382
ATLANTA AMC	383671	2	203	6 day[5]	2319	696	3015	151	412	3577
		2	203	7 day[5]	2707	812	3519	176	481	4176
AURORA MAIL PROCESSING ANNEX	378865	2	201	6 day[5]	2318	695	3013	151	410	3574
		2	201	7 day[5]	2704	811	3515	176	479	4170
AUSTIN PDC	380414	2	156	6 day[5]	2333	700	3033	152	362	3547
		2	156	7 day[5]	2722	817	3539	177	423	4139
BALTIMORE	400873	2	167	6 day[5]	2380	714	3094	155	375	3624
		2	167	7 day[5]	2777	833	3610	181	437	4228
BOSTON	357497	2	191	6 day[5]	2427	728	3155	158	400	3713
		2	191	7 day[5]	2832	850	3682	184	466	4332
BROOKLYN PDC	380494	2	200	6 day[5]	2419	726	3145	157	408	3710
		2	200	7 day[5]	2822	847	3669	183	476	4328
BUSSE SURFACE HUB	376573	2	201	6 day[5]	2405	722	3127	156	410	3693
		2	201	7 day[5]	2806	842	3648	182	479	4309
BUSSE SURFACE HUB	334946	2	173	6 day[5]	2405	722	3127	156	381	3664
		2	173	7 day[5]	2806	842	3648	182	445	4275

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CHICAGO BMC	436261	2	201	6 day[5]	2430	729	3159	158	410	3727
		2	201	7 day[5]	2834	850	3684	184	479	4347
CINCINNATI BMC	354981	1	125	6 day[5]	1456	437	1893	95	252	2239
		1	125	7 day[5]	1699	510	2209	110	294	2613
COLUMBUS P DC	366665	2	194	6 day[5]	2439	732	3171	159	402	3731
		2	194	7 day[5]	2845	854	3699	185	469	4352
DENVER BMC	365840	1	150	6 day[5]	1434	430	1864	93	277	2234
		1	150	7 day[5]	1673	502	2175	109	323	2607
DOMINICK V DANIELS PDC	401766	2	152	6 day[5]	2258	677	2935	147	358	3440
		2	152	7 day[5]	2634	790	3424	171	418	4013
FT WORTH P DC	374567	2	200	6 day[5]	2454	736	3190	160	408	3758
		2	200	7 day[5]	2863	859	3722	186	476	4384
GRAND RAPIDS ANNEX	352609	2	201	6 day[5]	2317	695	3012	151	410	3573
		2	201	7 day[5]	2703	811	3514	176	479	4169
GREENSBORO PDC	337895	1	152	6 day[5]	1434	430	1864	93	279	2236
		1	152	7 day[5]	1673	502	2175	109	326	2610
HARRISBURG	178805	2	187	6 day[5]	2425	728	3153	158	396	3706
		2	187	7 day[5]	2829	849	3678	184	462	4324
HOUSTON	359956	2	150	6 day[5]	2357	707	3064	153	356	3573
		2	150	7 day[5]	2750	825	3575	179	415	4169
INDIANAPOLIS MPA	372142	2	201	6 day[5]	2320	696	3016	151	410	3577
		2	201	7 day[5]	2707	812	3519	176	479	4174
IRVING PARK PDC	403420	2	200	6 day[5]	2418	725	3143	157	408	3709
		2	200	7 day[5]	2821	846	3667	183	476	4327
IRVING PARK PDC	395551	2	200	6 day[5]	2417	725	3142	157	408	3707
		2	200	7 day[5]	2820	846	3666	183	476	4325
JACKSONVILLE INTERNATIONAL ATO	342974	1	100	6 day[5]	1404	421	1825	91	225	2141
		1	100	7 day[5]	1637	491	2128	106	263	2498

MAINTENANCE MANAGEMENT ORDER

KANSAS CITY BMC	381658	2	200	6 day[5]	2418	725	3143	157	408	3709
		2	200	7 day[5]	2821	846	3667	183	476	4327
KANSAS CITY PDC	366710	2	150	6 day[5]	2356	707	3063	153	356	3572
		2	150	7 day[5]	2749	825	3574	179	415	4167
LEHIGH VALLEY PDC	376276	1	112	6 day[5]	1425	428	1853	93	238	2183
		1	112	7 day[5]	1661	498	2159	108	277	2544
LOS ANGELES PDC	435294	2	201	6 day[5]	2308	692	3000	150	410	3560
		2	201	7 day[5]	2693	808	3501	175	479	4155
METRO PRIORITY ANNEX MO	369220	2	201	6 day[5]	2322	697	3019	151	410	3580
		2	201	7 day[5]	2709	813	3522	176	479	4177
MILWAUKEE MPA	424708	2	189	6 day[5]	2302	691	2993	150	398	3540
		2	189	7 day[5]	2685	806	3491	175	464	4129
MORGAN STATION	395379	1	159	6 day[5]	1450	435	1885	94	288	2267
		1	159	7 day[5]	1692	508	2200	110	335	2645
NASHUA	412113	2	201	6 day[5]	2317	695	3012	151	410	3573
		2	201	7 day[5]	2703	811	3514	176	479	4169
NEW JERSEY BMC	408569	2	200	6 day[5]	2366	710	3076	154	408	3638
		2	200	7 day[5]	2762	829	3591	180	476	4246
NEW JERSEY LDC	361758	2	201	6 day[5]	2317	695	3012	151	410	3573
		2	201	7 day[5]	2703	811	3514	176	479	4169
NEW YORK LDC	357511	2	201	6 day[5]	2317	695	3012	151	410	3573
		2	201	7 day[5]	2703	811	3514	176	479	4169
NORTH HOUSTON	405950	2	200	6 day[5]	2417	725	3142	157	408	3707
		2	200	7 day[5]	2820	846	3666	183	476	4325
NORTH HOUSTON	369585	2	201	6 day[5]	2322	697	3019	151	410	3580
		2	201	7 day[5]	2709	813	3522	176	479	4177
NORTH PARK ANNEX	401927	2	150	6 day[5]	2371	711	3082	154	356	3592
		2	150	7 day[5]	2766	830	3596	180	415	4191

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NORTH TEXAS PDC	331650	2	151	6 day[5]	2246	674	2920	146	358	3424
		2	151	7 day[5]	2620	786	3406	170	418	3994
OKLAHOMA STA-BRANCH	333994	2	136	6 day[5]	2237	671	2908	145	342	3396
		2	136	7 day[5]	2610	783	3393	170	398	3961
OMAHA PDC	398728	1	100	6 day[5]	1403	421	1824	91	225	2140
		1	100	7 day[5]	1636	491	2127	106	263	2496
ORLANDO	415501	1	152	6 day[5]	1435	431	1866	93	279	2238
		1	152	7 day[5]	1674	502	2176	109	326	2611
ORLANDO	392882	2	201	6 day[5]	2317	695	3012	151	410	3573
		2	201	7 day[5]	2703	811	3514	176	479	4169
PALATINE	242801	1	154	6 day[5]	1448	434	1882	94	281	2258
		1	154	7 day[5]	1689	507	2196	110	328	2633
PHILADELPHIA (NEW)	382071	1	152	6 day[5]	1434	430	1864	93	279	2236
		1	152	7 day[5]	1673	502	2175	109	326	2610
PHILADELPHIA (NEW)	382072	1	152	6 day[5]	1434	430	1864	93	279	2236
		1	152	7 day[5]	1673	502	2175	109	326	2610
PITTSBURGH LDC	379207	2	200	6 day[5]	2454	736	3190	160	408	3758
		2	200	7 day[5]	2863	859	3722	186	476	4384
PROVIDENCE	380725	1	153	6 day[5]	1547	464	2011	101	281	2393
		1	153	7 day[5]	1803	541	2344	117	328	2789
RANDOLPH ISC	366138	1	150	6 day[5]	1507	452	1959	98	277	2334
		1	150	7 day[5]	1757	527	2284	114	323	2721
RANDOLPH ISC	366139	1	150	6 day[5]	1507	452	1959	98	277	2334
		1	150	7 day[5]	1758	527	2285	114	323	2723
RICHMOND	368439	2	135	6 day[5]	2225	668	2893	145	342	3379
		2	135	7 day[5]	2596	779	3375	169	398	3942
ROCHESTER LDC	370973	2	199	6 day[5]	2329	699	3028	151	408	3587
		2	199	7 day[5]	2718	815	3533	177	476	4186

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ROCHESTER LDC	345651	2	199	6 day[5]	2329	699	3028	151	408	3587
		2	199	7 day[5]	2718	815	3533	177	476	4186
SAN BERNARDINO PDC	435412	2	200	6 day[5]	2453	736	3189	159	408	3756
		2	200	7 day[5]	2862	859	3721	186	476	4383
SAN DIEGO	375246	2	200	6 day[5]	2428	728	3156	158	408	3722
		2	200	7 day[5]	2833	850	3683	184	476	4343
SAN JOSE PDC	392784	2	200	6 day[5]	2418	725	3143	157	408	3709
		2	200	7 day[5]	2821	846	3667	183	476	4327
SANTA CLARITA P DC	374309	2	200	6 day[5]	2417	725	3142	157	408	3707
		2	200	7 day[5]	2820	846	3666	183	476	4325
SANTA CLARITA P DC	389601	2	200	6 day[5]	2417	725	3142	157	408	3707
		2	200	7 day[5]	2820	846	3666	183	476	4325
SHREWSBURY	371396	1	124	6 day[5]	1455	437	1892	95	250	2236
		1	124	7 day[5]	1697	509	2206	110	292	2608
SOUTH JERSEY PDC	383981	2	156	6 day[5]	2357	707	3064	153	362	3579
		2	156	7 day[5]	2751	825	3576	179	423	4178
SOUTHERN CONN	396490	1	138	6 day[5]	1487	446	1933	97	265	2295
		1	138	7 day[5]	1734	520	2254	113	309	2676
SOUTHERN MAINE P&DC	402585	2	200	6 day[5]	2419	726	3145	157	408	3710
		2	200	7 day[5]	2822	847	3669	183	476	4328
SPRINGFIELD LDC	340120	2	202	6 day[5]	2320	696	3016	151	410	3577
		2	202	7 day[5]	2707	812	3519	176	479	4174
SPRINGFIELD LDC	350712	2	209	6 day[5]	2336	701	3037	152	419	3608
		2	209	7 day[5]	2726	818	3544	177	488	4209
ST PAUL BMC	371364	1	100	6 day[5]	1432	430	1862	93	225	2180
		1	100	7 day[5]	1669	501	2170	108	263	2541
TAMPA LDC	417318	2	201	6 day[5]	2317	695	3012	151	410	3573
		2	201	7 day[5]	2703	811	3514	176	479	4169

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TAMPA LDC	417319	2	200	6 day[5]	2417	725	3142	157	408	3707
		2	200	7 day[5]	2820	846	3666	183	476	4325
TWIN CITIES METRO	374816	2	200	6 day[5]	2472	742	3214	161	408	3782
		2	200	7 day[5]	2884	865	3749	187	476	4413
WASHINGTON BMC	421185	2	104	6 day[5]	2144	643	2787	139	308	3235
		2	104	7 day[5]	2501	750	3251	163	360	3774
WEST SACRAMENTO PD	404279	2	200	6 day[5]	2417	725	3142	157	408	3707
		2	200	7 day[5]	2820	846	3666	183	476	4325
WEST VALLEY LDC	375412	2	201	6 day[5]	2317	695	3012	151	410	3573
		2	201	7 day[5]	2703	811	3514	176	479	4169
WEST VALLEY LDC	375411	2	201	6 day[5]	2319	696	3015	151	410	3575
		2	201	7 day[5]	2705	812	3517	176	479	4171
WEST VALLEY LDC	389929	2	201	6 day[5]	2317	695	3012	151	410	3573
		2	201	7 day[5]	2703	811	3514	176	479	4169

NOTES:

1. Maximum time based on 3 dumpers (combination of Pallet or All-Purpose) per side.
2. Operational Maintenance Time per Machine maximum twice per day on non-PM tours.
3. Repair Time is 30% of Routine Servicing Time. The repair time shown above is the maximum time allotted per site.
4. Non-Productive Time is 5% of Total Servicing Time.
5. Calculations based on 20 Run Hours per day and 190,000 pieces fed for dual sided machines and 110,000 pieces fed for single sided machines.
6. Hours have been rounded.

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ATTACHMENT 2

MASTER CHECKLIST

03-APPS-AA-001-M

Time Total: See Attachment 1.

MAINTENANCE MANAGEMENT ORDER

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature: Automated Package Processing Systems	Equipment Model										Bulletin Filename: MM10086AD					Occurrence

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. Open equipment and inspect dust conditions. Check for suspicious dust or unusual debris. If any unusual substance is found notify supervisor prior to proceeding with any further action on the equipment.** **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.**	1	All			
SAFETY STATEMENT	2.	**Comply with all MSDS information.** **Various products requiring Material Safety Data Sheets (MSDS) may be utilized during the performance of the procedures in this bulletin. Ensure the current MSDS for each product used is on file and available to all employees. When reordering such a product, it is suggested that current MSDS be requested. Refer to MSDS for appropriate personal protective equipment. Dispose of all chemicals in accordance with local waste management policy and procedures.**	1	All			
APPS SYSTEM: POWER DOWN	3.	**Power down and lock out power.** Perform an orderly shut down of the APPS from the SMS. Power down the machine and lock out its electrical power source as prescribed by the current local lockout/restore procedures.	12	All	0	0	

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model								Bulletin Filename MM10086AD				Occurrence			

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.
APPS SYSTEM: MAIL SEARCH	4.	**Perform mail search on the Feed Subsystem: All Purpose Container Unloader.** 1. Remove covers and panels as necessary. 2. Search for mailpieces. 3. Report conveyor belt damage. 4. Replace all covers and panels. 5. Check that all equipment guards are in place. 6. Return all mail found during mail search to the proper mail path. Multiply by APCU.	1	7			D
APPS SYSTEM: MAIL SEARCH	5.	**Perform mail search on the Feed Subsystem: Semi-Auto Pallet Unloader.** 1. Remove covers and panels as necessary. 2. Search for mailpieces. 3. Report conveyor belt damage. 4. Replace all covers and panels. 5. Check that all equipment guards are in place. 6. Return all mail found during mail search to the proper mail path. Multiply by PUN.	1	7			D
APPS SYSTEM: MAIL SEARCH	6.	**Perform mail search of the APPS.** 1. Using the recommended walk sequence as listed below, perform the mail search of the following areas. a. Feed Subsystem: Load Module b. Feed Subsystem: Incline Module c. Singulation Subsystem: Un-Stacker Module d. Singulation Subsystem: Traffic Control Module e. Singulation Subsystem: Delta/Aligner Module	42	7			D

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature: Automated Package Processing Systems	Equipment Model								Bulletin Filename: MM10086AD				Occurrence			

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. Singulation Subsystem: Metering Module g. Distribution Subsystem: Data Collection Area h. Distribution Subsystem: Automated Address Recognition Subsystem i. Distribution Subsystem: 90 Degree Incline Curve j. Distribution Subsystem: 90 Degree High Speed Curve k. Distribution Subsystem: Sync Module/Load Belt Conveyors l. Distribution Subsystem: Shoe Sorter Assembly m. Distribution Subsystem: Recirculation Module n. Induction Subsystem: Auto Induction Assembly o. Induction Subsystem: Semi-Auto Induction Station 2. For each area list above, remove covers and panels as necessary. 3. Search for mailpieces. 4. Report 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. Multiply by sides.					
APPS SYSTEM: MAIL SEARCH	7.	**Perform mail search on the Sorter Subsystem Sorter Assembly.** 1. Remove covers and panels as necessary. 2. Search for mailpieces. 3. Report carrier train physical damage. 4. Replace all covers and panels.	.03	7			D

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model								Bulletin Filename MM10086AD				Occurrence			

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 that all equipment guards are in place. 6. Return all mail found during mail search to the proper mail path. Multiply by carrier cells.					
APPS: DAILY CLEANING	8.	**Clean belts, rollers, photoeyes, and mirrors.** **WARNING** **PPE must be properly used as required by the current MSDS when using alcohol.** **Alcohol is a flammable liquid. Discard alcohol soaked materials according to local procedures to prevent spontaneous combustion.** **WARNING** **Allow sufficient time for lamps to cool before handling.** **CAUTION** **To prevent premature lamp failure, allow a minimum of 30 minutes for lamps to cool before cleaning or handling. Do not re-apply power to lamps immediately, allow 30 minutes before power is re-applied.** **NOTE** The recommended implement for dusting off the APPS camera mirrors is a camel hair brush - 3 inches wide with at least 2 inch long bristles would be adequate. Care must be taken not to touch the bristles with anything that can impart oils - such as the skin of your hand. The camel hair brush should also be cleaned off after each use. This can be done with a vacuum cleaner or by brushing it against the corner of a clean surface.	.16	7	20	190	

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature: Automated Package Processing Systems	Equipment Model								Bulletin Filename: MM10086AD				Occurrence			

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.
		If mirror has oil contamination, clean using isopropyl wipes only (Part# MG-824W50 - MSDS Sheet 5.1 CDRL040). If required after cleaning with isopropyl alcohol wipes, use Tansen TX404 fine grain optics line free cloth. 1. Remove covers and panels as necessary. 2. Remove strings, wrapping materials, and all foreign objects from all belts, rollers, bearing blocks, and photoeyes. 3. Clean all photoeyes with Micro fiber gloves. 4. Vacuum clean traffic control conveyor KORE vision sensor photoeyes. 5. Clean AARS optics mirrors with a clean camel hair brush. 6. Replace all covers and panels. Multiply by E-Stop.					
APPS: PERIODIC CLEANING	9.	**System vacuum cleaning schedule.** Using a HEPA vacuum, clean equipment frame and mail transport hardware on the following schedule: **NOTE** Computer cabinets, imaging optics, and imaging electronics are not included in this task. 1. Saturday: Unloaders, Load Conveyor(s), Incline Conveyor(s), Dosing Conveyor(s), Unstacker Conveyors 2. Sunday: Traffic Control conveyor(s), Delta Aligner Conveyors, Metering Conveyors 3. Monday: Shoe Sorter(s) 4. Tuesday: Auto and Semi-Auto Inductions(s), Semi-Auto Load Conveyors 5. Wednesday: Data Collection Subsystem(s) 6. Thursday: 90-Degree Incline Conveyor(s), 90-Degree High Speed Conveyor(s), Sync Conveyors	30	7			D

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	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model										Bulletin Filename MM10086AD					Occurrence

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. Friday: Sorter/Backbone Multiply by sides.					
FEED SUBSYSTEM: SAFETY BARRIERS	10.	**Check safety barriers on both sides.** Check for missing, loose, or damaged safety barriers (Lexan panels, wire mesh screens, gates, etc.) Multiply by sides.	1	7			1
FEED SUBSYSTEM: DOSING AND UNSTACKER CONVEYORS (7 BELTS) SIDE 1	11.	**Check belt brush condition on side one.** Visually check belt brush condition for wear and proper adjustment.	2	7	20	190	
FEED SUBSYSTEM: DOSING AND UNSTACKER CONVEYORS (7 BELTS) SIDE 2	12.	**Check belt brush condition on side two.** Visually check belt brush condition for wear and proper adjustment.	2	7	20	190	
FEED SUBSYSTEM: APCU AND PUN	13.	**Check APCU and PUN condition.** 1. Visually check for damaged or missing container stops. 2. Visually check hydraulic cylinders for broken or leaking fittings and hoses, or leaking seals. 3. Visually check condition of hoses and fittings. Check for leaks. Observe for damage caused by foot traffic, falling parcels, or abrasion by moving parts. 4. Visually check Unloader frame for damage or loose floor anchors. Check for cracks and metal fatigue at pivot points and near welds. Verify clevis pin retaining hardware is in place and secure. 5. Check hydraulic fluid level using sight glass. Add fluid if required. 6. Visually check fluid for evidence of water contamination (cloudy), discoloration from	3	7	140	1330	

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	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model										Bulletin Filename MM10086AD					Occurrence

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.
		overheating, unusual odor, and/or or excessive particulates (examine sample on blotter). Hydraulic fluid should last 3 to 5 years according to manufacturer. 7. Use CITGO A/W Hydraulic Oil 32. Multiply by APCU+PUN.					
FEED SUBSYSTEM: PUN RAILS AND ROLLERS	14.	**Check rail and roller condition.** 1. Visually check for damaged, seized, or missing rollers. 2. Check rails for excessive wear and metal fatigue. Multiply by PUN.	1	7	140	1330	
FEED SUBSYSTEM: LOAD CONVEYOR SIDE 1	15.	**Check gearbox condition on side one.** Visually check gearbox for leaks.	1	7	140	1330	
FEED SUBSYSTEM: LOAD CONVEYOR SIDE 2	16.	**Check gearbox condition on side two.** Visually check gearbox for leaks.	1	7	140	1330	
FEED SUBSYSTEM: INCLINE CONVEYOR SIDE 1	17.	**Check gearbox condition on side one.** Remove covers and visually check drive motor gearbox for leaks.	1	7	140	1330	
FEED SUBSYSTEM: INCLINE CONVEYOR SIDE 2	18.	**Check gearbox condition on side two.** Remove covers and visually check drive motor gearbox for leaks.	1	7	140	1330	
FEED SUBSYSTEM: INCLINE, DOSING AND UNSTACKER CONVEYORS (7 BELTS) SIDE 1	19.	**Check belting and gearbox condition on side one.** 1. Check belts for wear, damage, stretching, and debris. 2. Visually check drive motor gearbox for leaks.	4	7	140	1330	

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	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model								Bulletin Filename MM10086AD				Occurrence			

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.
FEED SUBSYSTEM: INCLINE, DOSING AND UNSTACKER CONVEYORS (7 BELTS) SIDE 2	20.	**CHECK belting and gearbox condition on side two.** 1. Check belts for wear, damage, stretching, and debris. 2. Visually check drive motor gearbox for leaks.	4	7	140	1330	
FEED SUBSYSTEM: TRAFFIC CONTROL CONVEYOR SIDE 1	21.	**Check belting condition on side one.** Visually check condition of strip belts (18) for damage or excessive debris.	1	7	140	1330	
FEED SUBSYSTEM: TRAFFIC CONTROL CONVEYOR SIDE 2	22.	**Check belting condition on side two.** Visually check condition of strip belts (18) for damage or excessive debris.	1	7	140	1330	
FEED SUBSYSTEM: DELTA WING ALIGNER CONVEYOR SIDE 1	23.	**Check belting and gearbox condition on side one.** 1. Visually check center belt condition for damage or stretching. 2. Visually check vertical belt condition for damage or stretching. 3. Visually check condition of conveyor bed roller drive belts (3) for damage. 4. Visually check gearboxes (vertical and center conveyor, and 3 each roller conveyor bed) for leaks.	3	7	140	1330	
FEED SUBSYSTEM: DELTA WING ALIGNER CONVEYOR SIDE 2	24.	**Check belting and gearbox condition on side two.** 1. Visually check center belt condition for damage or stretching. 2. Visually check vertical belt condition for damage or stretching. 3. Visually check condition of conveyor bed roller drive belts (3) for damage.	3	7	140	1330	

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	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature: Automated Package Processing Systems	Equipment Model										Bulletin Filename: MM10086AD		Occurrence			

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. Visually check gearboxes (vertical and center conveyor, and 3 each roller conveyor bed) for leaks.					
FEED SUBSYSTEM: METERING CONVEYOR (4 BELTS PER MODULE) SIDE 1	25.	**Check belting and gearbox condition on side one.** 1. Visually check belt condition for wear, damage, or stretching. 2. Visually check drive motor gearbox for leaks.	1	7	140	1330	
FEED SUBSYSTEM: METERING CONVEYOR (4 BELTS PER MODULE) SIDE 2	26.	**Check belting and gearbox condition on side two.** 1. Visually check belt condition for wear, damage, or stretching. 2. Visually check drive motor gearbox for leaks.	1	7	140	1330	
FEED SUBSYSTEM: LOAD AND INCLINE CONVEYORS SIDE 1	27.	**Clean and lube drive chains on side one.** 1. Clean and lubricate Load Conveyor triplex drive chain. 2. Clean and lubricate Incline Conveyor drive chain.	20	7	600	5700	
FEED SUBSYSTEM: LOAD AND INCLINE CONVEYORS SIDE 2	28.	**Clean and lube drive chains on side two.** 1. Clean and lubricate Load Conveyor triplex drive chain. 2. Clean and lubricate Incline Conveyor drive chain.	20	7	600	5700	
FEED SUBSYSTEM: INCLINE CONVEYOR SIDE 1	29.	**Check brake unit on side one.** 1. Check for brake dust around drive motor brake that may indicate excessive wear. 2. Visually check drive chain tension and alignment.	3	7	600	5700	
FEED SUBSYSTEM: INCLINE CONVEYOR SIDE 2	30.	**Check brake unit on side two.** 1. Check for brake dust around drive motor brake that may indicate excessive wear. 2. Visually check drive chain tension and alignment.	3	7	600	5700	

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Equipment Nomenclature Automated Package Processing Systems	Equipment Model								Bulletin Filename MM10086AD			Occurrence				

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.
FEED SUBSYSTEM: LOAD CONVEYOR SIDE 1	31.	**Check belting condition side one.** 1. Visually check conveyor belt for wear, damage, or missing tiles. 2. Check belt tension by observing belt sag under conveyor.	5	7	1800	17100	
FEED SUBSYSTEM: LOAD CONVEYOR SIDE 2	32.	**Check belting condition side two.** 1. Visually check conveyor belt for wear, damage, or missing tiles. 2. Check belt tension by observing belt sag under conveyor.	5	7	1800	17100	
FEED SUBSYSTEM: APCU AND PUN HYDRAULIC UNITS	33.	**Check breather/fill cap.** Visually check reservoir for clogged breather/fill cap. Clean or replace as necessary. Multiply by APCU+PUN.	1	7	3600	34200	
FEED SUBSYSTEM: POLY CHAIN DRIVE BELTS SIDE 1	34.	**Check drive belt and sprocket condition on side one.** Visually check condition of poly chain belts and sprockets on the following conveyors for worn or missing teeth or improper tension: 1. Dosing and Unstacker Conveyers (7) 2. Delta Wing Aligner Vertical Belt (1) 3. Metering Conveyors (4)	12	7	7200	68400	
FEED SUBSYSTEM: POLY CHAIN DRIVE BELTS SIDE 2	35.	**Check drive belt and sprocket condition on side two.** Visually check condition of poly chain belts and sprockets on the following conveyors for worn or missing teeth or improper tension: 1. Dosing and Unstacker Conveyers (7) 2. Delta Wing Aligner Vertical Belt (1) 3. Metering Conveyors (4)	12	7	7200	68400	

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	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model										Bulletin Filename MM10086AD					Occurrence

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.
FEED SUBSYSTEM: CABLES, WIRING, CONNECTORS, AND TERMINATIONS SIDE 1	36.	**Check cables and wiring on side one.** Visually check the physical integrity of all externally accessible cables, wiring, connectors, and terminations in the Feed Subsystem.	10	7	7200	68400	
FEED SUBSYSTEM: CABLES, WIRING, CONNECTORS, AND TERMINATIONS SIDE 2	37.	**Check cables and wiring on side two.** Visually check the physical integrity of all externally accessible cables, wiring, connectors, and terminations in the Feed Subsystem.	10	7	7200	68400	
FEED SUBSYSTEM: LEXAN PANELS SIDE 1	38.	**Clean Lexan panels on side one.** Clean both sides of all Lexan panels.	30	7	7200	68400	
FEED SUBSYSTEM: LEXAN PANELS SIDE 2	39.	**Clean Lexan panels on side two.** Clean both sides of all Lexan panels.	30	7	7200	68400	
FEED SUBSYSTEM: APCU AND PUN HYDRAULIC UNITS	40.	**Change hydraulic fluid.** Remove old hydraulic fluid and replace with new hydraulic fluid. Use CITGO A/W Hydraulic Oil 32. Multiply by APCU+PUN.	15	7	21600	205200	
IMAGE AARS: SAFETY BARRIERS	41.	**Check safety barriers.** Check for missing, loose, or damaged safety barriers (Lexan panels, wire mesh screens, gates, etc.). Multiply by sides.	1	7			1
IMAGE AARS: DCS LASERS, CAMERAS, AND SEMI-AUTO CAMERA	42.	**Clean lasers and cameras.** Clean lasers, cameras, mirrors, and lamp housing optics. **WARNING** **Allow sufficient time for lamps to cool before handling.**	30	9			1

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Equipment Nomenclature	Equipment Model	Bulletin Filename	Occurrence
Automated Package Processing Systems		MM10086AD	

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.
		WARNING **PPE must be properly used as required by the current MSDS when using alcohol.** **Alcohol is a flammable liquid. Discard alcohol soaked materials according to local procedures to prevent spontaneous combustion.** **CAUTION** **To prevent premature lamp failure, allow a minimum of 30 minutes for lamps to cool before cleaning. Do not reapply power to lamps immediately; allow lamps to cool a minimum of 30 minutes before power is re-applied.** **NOTE** The recommended implement for dusting off the APPS camera mirrors is a camel hair brush - 3 inches wide with at least 2 inch long bristles would be adequate. Care must be taken not to touch the bristles with anything that can impart oils - such as the skin of your hand. The camel hair brush should also be cleaned off after each use. This can be done with a vacuum cleaner or by brushing it against the corner of a clean surface. If mirror has oil contamination, clean using isopropyl wipes only (Part# MG-824W50 - MSDS Sheet 5.1 CDRL040). If required after cleaning with isopropyl alcohol wipes, use Tansen TX404 fine grain optics line free cloth. Multiply by sides.					
IMAGE AARS: DCS BELTS SIDE 1	43.	**Check belting and roller condition side one.** Visually check belt condition on the following conveyors for wear, damage, and stretching:	1	7	140	1330	

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	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model								Bulletin Filename MM10086AD				Occurrence			

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. AARS DCX 1-1 2. AARS DCX 1-2 3. AARS DCX 1-3 4. AARS DCX 2-1 5. AARS DCX 2-2					
IMAGE AARS: DCS BELTS SIDE 2	44.	**Check belting and roller condition side two.** Visually check belt condition on the following conveyors for wear, damage, and stretching: 1. AARS DCX 1-1 2. AARS DCX 1-2 3. AARS DCX 1-3 4. AARS DCX 2-1 5. AARS DCX 2-2	1	7	140	1330	
IMAGE AARS: DCX 1-2 METTLER SCALE CONVEYOR SIDE 1	45.	**Check gearbox condition on side one.** Visually check gearbox for leaks.	1	7	140	1330	
IMAGE AARS: DCX 1-2 METTLER SCALE CONVEYOR SIDE 2	46.	**Check gearbox condition on side two.** Visually check gearbox for leaks.	1	7	140	1330	
IMAGE AARS: POLY CHAIN DRIVE BELTS SIDE 1	47.	**Check drive belt condition on side one.** Visually check condition of poly chain belts on the following conveyors for worn or missing teeth or improper tension: 1. AARS DCX 1-1 2. AARS DCX 1-2 3. AARS DCX 1-3 4. AARS DCX 2-2	4	7	7200	68400	

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	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model										Bulletin Filename MM10086AD					Occurrence

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.
IMAGE AARS: POLY CHAIN DRIVE BELTS SIDE 2	48.	**Check drive belt condition on side two.** Visually check condition of poly chain belts on the following conveyors for worn or missing teeth or improper tension: 1. AARS DCX 1-1 2. AARS DCX 1-2 3. AARS DCX 1-3 4. AARS DCX 2-2	4	7	7200	68400	
IMAGE AARS: CABLES, WIRING, CONNECTORS, AND TERMINATIONS SIDE 1	49.	**Check cables and wiring on side one.** Visually check the physical integrity of all externally accessible cables, wiring, connectors, and terminations in the Image AARS Subsystem.	5	7	7200	68400	
IMAGE AARS: CABLES, WIRING, CONNECTORS, AND TERMINATIONS SIDE 2	50.	**Check cables and wiring on side two.** Visually check the physical integrity of all externally accessible cables, wiring, connectors, and terminations in the Image AARS Subsystem.	5	7	7200	68400	
IMAGE AARS: LEXAN PANELS SIDE 1	51.	**Clean panels onside one.** Clean both sides of Lexan panels.	5	7	7200	68400	
IMAGE AARS: LEXAN PANELS SIDE 2	52.	**Clean panels onside two.** Clean both sides of Lexan panels.	5	7	7200	68400	
INDUCTION SUBSYSTEM: SAFETY BARRIERS	53.	**Check safety barriers.** Check for missing, loose, or damaged safety barriers (Lexan panels, wire mesh screens, gates, etc.) Multiply by sides.	2	7			1
INDUCTION SUBSYSTEM: SHOE SORTER SIDE 1	54.	**Check debris catch pans on side one.** 1. Remove shoe sorter side covers on one side and check debris catch pans under shoe sorter conveyor for:	26	7	140	1330	

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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. Excessive debris or oil b. Missing or damaged sound absorption material, or missing panels. 2. Remove debris and initiate corrective action as required.					
INDUCTION SUBSYSTEM: SHOE SORTER SIDE 2	55.	**Check debris catch pans on side two.** 1. Remove shoe sorter side covers on one side and check debris catch pans under shoe sorter conveyor for: a. Excessive debris or oil b. Missing or damaged sound absorption material, or missing panels. 2. Remove debris and initiate corrective action as required.	26	7	140	1330	
INDUCTION SUBSYSTEM: SHOE SORTER SIDE 1	56.	**Check shoe sorter condition on side one.** 1. Verify all frame hardware is tight. 2. Visually check condition of all shoe extend and retract bars and guide blocks for mis-alignment and damage. 3. Visually check diverter switch assembly gates and lead-in weldments for misalignment and surface wear. Check gate stops for wear and damage. 4. Visually check overflow debris brush for damage and wear. 5. Check chain tension at tail shaft/sprocket assembly. 6. Visually check chain oiler reservoir and manifold for leaks. 7. Check chain oiler reservoir oil level. Add lubricant if reservoir is low. Replenish with Exxon Mobile FEBIS K68. 8. Check oiler brush for wear, dirt, or misadjustment.	57	7	600	5700	

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	0	3	A	P	P	S					A	A	0	0	1	M
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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.
INDUCTION SUBSYSTEM: SHOE SORTER SIDE 2	57.	**Check shoe sorter condition on side two.** 1. Verify all frame hardware is tight. 2. Visually check condition of all shoe extend and retract bars and guide blocks for misalignment and damage. 3. Visually check diverter switch assembly gates and lead-in weldments for misalignment and surface wear. Check gate stops for wear and damage. 4. Visually check overflow debris brush for damage and wear. 5. Check chain tension at tail shaft/sprocket assembly. 6. Visually check chain oiler reservoir and manifold for leaks. 7. Check chain oiler reservoir oil level. Add lubricant if reservoir is low. Replenish with Exxon Mobile FEBIS K68. 8. Check oiler brush for wear, dirt, or misadjustment.	57	7	600	5700	
INDUCTION SUBSYSTEM: ALL CONVEYORS SIDE 1	58.	**Check gearbox condition on side one.** Visually check gearboxes on the following conveyors for leaks: 1. 90 Degree Incline and High Speed Conveyors (2) 2. Auto-Induction 90 Degree Conveyor (3) 3. Semi-Auto Roller Conveyor (1) 4. Recirculation Conveyor (1) 5. Rework Conveyor (1) 6. Shoe Sorter (1)	3	7	1800	17100	

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	0	3	A	P	P	S					A	A	0	0	1	M
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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.
INDUCTION SUBSYSTEM: ALL CONVEYORS SIDE 2	59.	**Check gearbox condition on side two.** Visually check gearboxes on the following conveyors for leaks: 1. 90 Degree Incline and High Speed Conveyors (2) 2. Auto-Induction 90 Degree Conveyor (3) 3. Semi-Auto Roller Conveyor (1) 4. Recirculation Conveyor (1) 5. Rework Conveyor (1) 6. Shoe Sorter (1)	3	7	1800	17100	
INDUCTION SUBSYSTEM: SHOE SORTER SIDE 1	60.	**Change gearbox oil on side one.** Change gearbox oil using ISO VG220 Mineral Based Oil, Shell OMALA 220.	14	7	10000	55000	
INDUCTION SUBSYSTEM: SHOE SORTER SIDE 2	61.	**Change gearbox oil on side two.** Change gearbox oil using ISO VG220 Mineral Based Oil, Shell OMALA 220	14	7	10000	55000	
INDUCTION SUBSYSTEM: POLY CHAIN BELTS SIDE 1	62.	**Check drive belt and sprocket condition on side one.** Visually check condition of poly chain belts and sprockets on the following conveyors for worn or missing teeth or improper tension: 1. Sync Module Conveyors DX1-1 through DX1-4 and DX2-1 (5) 2. Recirculation Conveyor (1) 3. Auto-induction 45 degree Loading and Unloading Conveyors (6) 4. Auto-induction Sync Conveyors (6) 5. Semi-Automatic Induction Station Coding Conveyors (2) 6. Semi-Automatic Induction Station Scale Conveyor (1) 7. Semi-Automatic Induction Station	24	7	7200	68400	

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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.
		Synchronizing Conveyor (1) 8. Semi-Automatic Induction Station Unloading Conveyor (1)					
INDUCTION SUBSYSTEM: POLY CHAIN BELTS SIDE 2	63.	**Check drive belt and sprocket condition on side two.** Visually check condition of poly chain belts and sprockets on the following conveyors for worn or missing teeth or improper tension: 1. Sync Module Conveyors DX1-1 through DX1-4 and DX2-1 (5) 2. Recirculation Conveyor (1) 3. Auto-Induction 45 degree Loading and Unloading Conveyors (6) 4. Auto-Induction Sync Conveyors (6) 5. Semi-Automatic Induction Station Coding Conveyors (2) 6. Semi-Automatic Induction Station Scale Conveyor (1) 7. Semi-Automatic Induction Station Synchronizing Conveyor (1) 8. Semi-Automatic Induction Station Unloading Conveyor (1)	24	7	7200	68400	
INDUCTION SUBSYSTEM: LEXAN PANELS SIDE 1	64.	**Clean Lexan panels on side one.** Clean both sides of Lexan panels.	10	7	7200	68400	
INDUCTION SUBSYSTEM: LEXAN PANELS SIDE 2	65.	**Clean Lexan panels on side two.** Clean both sides of Lexan panels.	10	7	7200	68400	
INDUCTION SUBSYSTEM: SEMI-AUTO ROLLER TABLES SIDE 1	66.	**Check o-ring belts on side one.** Check all Semi-Auto Roller tables for slipping or missing o-ring belts and replace as needed.	2	7	7200	68400	

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Equipment Nomenclature: Automated Package Processing Systems	Equipment Model								Bulletin Filename: MM10086AD				Occurrence			

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.
INDUCTION SUBSYSTEM: SEMI-AUTO ROLLER TABLES SIDE 2	67.	**Check o-ring belts on side two.** Check all Semi-Auto Roller tables for slipping or missing o-ring belts and replace as needed.	2	7	7200	68400	
INDUCTION SUBSYSTEM: SEMI-AUTO CODING CONVEYOR (2 BELTS) SIDE 1	68.	**Check tension pulley on side one.** Visually check tension pulley for binding or worn bearings.	6	7	7200	68400	
INDUCTION SUBSYSTEM: SEMI-AUTO CODING CONVEYOR (2 BELTS) SIDE 2	69.	**Check tension pulley on side two.** Visually check tension pulley for binding or worn bearings.	6	7	7200	68400	
INDUCTION SUBSYSTEM: 45 DEGREE BELTS SIDE 1	70.	**Check Anti-Skid Assemblies on side one.** Check Anti-Skid Assemblies on the Auto and Semi-Auto Induction Stations for: 1. Broken, missing, damaged, or loose hardware. 2. Check for broken, missing, or damaged springs. 3. Check for broken, missing, damaged, or binding casters.	7	7	7200	68400	
INDUCTION SUBSYSTEM: 45 DEGREE BELTS SIDE 2	71.	**Check anti-skid assemblies on side two.** Check Anti-Skid Assemblies on the Auto and Semi-Auto Induction Stations for: 1. Broken, missing, damaged, or loose hardware. 2. Check for broken, missing, or damaged springs. 3. Check for broken, missing, damaged, or binding casters.	7	7	7200	68400	

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	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model										Bulletin Filename MM10086AD					Occurrence

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.
SORTER SUBSYSTEM: SAFETY BARRIERS	72.	**Check safety barriers.** Check for missing, loose, or damaged safety barriers (Lexan panels, wire mesh screens, gates, etc.). Multiply by carrier cells.	.01	7			1
SORTER SUBSYSTEM: LABEL PRINTERS	73.	**Clean label printer print heads.** Clean the label printer print head using the following procedure: 1. Ensure this procedure is accomplished when the APPS is powered down. **WARNING** **Allow sufficient time for the printhead to cool before handling or cleaning.** **CAUTION** **Extreme care should be taken that rules regarding electrostatic- discharge (ESD) are strictly followed when handling all printed circuit boards, including those in logic racks, system computers, etc. This includes the use of wrist straps and ESD pads.** 2. Follow all ESD precautions to prevent damage to electrostatic sensitive devices. 3. Do not touch the print head with any metal or sharp objects. 4. Ensure the printer switch is in the off position. 5. Raise and open the hinged label printer cover. 6. Rotate the green print head lift knob in the full counter-clockwise position. 7. Lift the print head to access the print surface.	2	7	20	190	

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	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature: Automated Package Processing Systems	Equipment Model										Bulletin Filename: MM10086AD		Occurrence			

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.
		WARNING **PPE must be properly used as required by the current MSDS when using alcohol.** **Alcohol is a flammable liquid. Discard alcohol soaked materials according to local procedures to prevent spontaneous combustion.** 8. Apply a small amount of Isopropyl alcohol to a Q-Tip. Do not over-saturate the Q-tip with alcohol. A damp Q-tip will provide the best results. 9. Carefully wipe debris from the face of the exposed print head with the Q-Tip. 10. Carefully lower the print head onto the roller and label. 11. Rotate the green print head lift knob in the full clockwise position. 12. Close the hinged label printer cover. 13. Restore the printer switch to the on position. 14. After the APPS is powered up and returned to operating condition, print a test label from each label printer and verify label print quality. Multiply by 2.					
SORTER SUBSYSTEM: PHOTOEYES	74.	**Check photoeye condition:** 1. Check photoeyes for damage. 2. Ensure that photoeye mounting hardware is secure.	3	7	20	190	
SORTER SUBSYSTEM: BINS	75.	**Check bin, roller table, and sack hanger condition.** **WARNING** **Worn bin chutes and other hardware may have sharp edges. Use hand protection.**	1	7	1800	17100	

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Equipment Nomenclature Automated Package Processing Systems	Equipment Model								Bulletin Filename MM10086AD				Occurrence			

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 25% of the roller tables and sack hangers for ease of use and operability. 2. Check bin chutes and associated hardware for wear, sharp edges and damage. 3. Log the bin position numbers checked during this check and ensure all bins are checked on a rotational basis. Multiply by 25% bins.					
SORTER SUBSYSTEM: POWER AND COMMUNICATION RAIL	76.	**Check cables and wiring.** Visually check the physical integrity of all externally accessible cables, wiring, connectors, and terminations in the Sorter Subsystem. Multiply by cells.	.05	7	7200	68400	
SORTER SUBSYSTEM: MONORAIL	77.	**Clean monorail.** Visually check monorail for build up of dirt or debris. Clean areas of monorail with excessive buildup. Multiply by: carrier cells.	.1	7	7200	68400	
POWER AND CONTROL: POWER FACTOR CONTROL CABINET (PFC)	78.	**Inspect and clean.** 1. Visually check condition of interior components. 2. Monitor condition of filter media. Clean or replace filter as appropriate.	5	9	600	5700	
POWER AND CONTROL: FSD COMPUTER CABINETS WITH COMPUTERS AND UPS SIDE 1	79.	**Clean computer cabinet side one.** 1. Check for indications of damaged cabinet or components. 2. Check for dirty computer filters and cabinet filters, and replace filters as needed. 3. Clean cabinet fan and cabinet interior as needed.	5	7	600	5700	

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Equipment Nomenclature: Automated Package Processing Systems	Equipment Model										Bulletin Filename: MM10086AD					Occurrence

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.
POWER AND CONTROL: FSD COMPUTER CABINETS WITH COMPUTERS AND UPS SIDE 2	80.	**Clean computer cabinet side two.** 1. Check for indications of damaged cabinet or components. 2. Check for dirty computer filters and cabinet filters and replace filters as needed. 3. Clean cabinet fan and cabinet interior as needed.	5	7	600	5700	
POWER AND CONTROL: SUPERVISOR'S WORK STATION	81.	**Clean computer cabinet (1 per system).** 1. Check for indications of damaged cabinet or components. 2. Check for dirty computer filters and cabinet filters and replace filters as needed. 3. Clean cabinet fan and cabinet interior as needed.	5	7	600	5700	
POWER AND CONTROL: IMAGE CAPTURE COMPUTER CABINETS WITH COMPUTERS AND UPS SIDE 1	82.	**Clean computer cabinet on side one.** 1. Check for indications of damaged cabinet or components. 2. Check for dirty computer filters and cabinet filters and replace filters as needed. 3. Clean cabinet fan and cabinet interior as needed.	5	7	600	5700	
POWER AND CONTROL: IMAGE CAPTURE COMPUTER CABINETS WITH COMPUTERS AND UPS SIDE 2	83.	**Clean computer cabinet on side two.** 1. Check for indications of damaged cabinet or components. 2. Check for dirty computer filters and cabinet filters and replace filters as needed. 3. Clean cabinet fan and cabinet interior as needed.	5	7	600	5700	

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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.
POWER AND CONTROL: SEMI-AUTO INDUCTION COMPUTER CABINETS WITH COMPUTERS AND UPS SIDE 1	84.	**Clean computer cabinet on side one.** 1. Check for indications of damaged cabinet or components. 2. Check for dirty computer filters and cabinet filters and replace filters as needed. 3. Clean cabinet fan and cabinet interior as needed.	5	7	600	5700	
POWER AND CONTROL: SEMI-AUTO INDUCTION COMPUTER CABINETS WITH COMPUTERS AND UPS SIDE 2	85.	**Clean computer cabinet on side two.** 1. Check for indications of damaged cabinet or components. 2. Check for dirty computer filters and cabinet filters and replace filters as needed. 3. Clean cabinet fan and cabinet interior as needed.	5	7	600	5700	
POWER AND CONTROL: IMAGE PROCESSOR COMPUTER CABINETS WITH COMPUTERS AND UPS	86.	**Clean computer cabinet (2 per system).** 1. Check for indications of damaged cabinet or components. 2. Check for dirty computer filters and cabinet filters and replace filters as needed. 3. Clean cabinet fan and cabinet interior as needed. Multiply by 2.	5	7	600	5700	
POWER AND CONTROL: POWER FACTOR CONTROL CABINET (PFC)	87.	**Inspect and clean.** 1. Check cooling fans for dirty blades and clean as needed. 2. Check inside cabinet for indications of worn or damaged components. 3. Clean cabinet interior as needed.	5	9	1800	17100	
POWER AND CONTROL: SORTER MAIN CONTROL CABINET (SMCC)	88.	**Inspect and clean.** Check inside cabinet for indications of worn or damaged components.	10	9	1800	17100	

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Equipment Nomenclature: Automated Package Processing Systems	Equipment Model										Bulletin Filename: MM10086AD					Occurrence

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.
POWER AND CONTROL: FEED SINGULATION DISTRIBUTION MAIN CONTROL CABINET (FSD-MCC) SIDE 1	89.	**Inspect and clean side one.** 1. Check inside cabinet for indications of worn or damaged components. 2. Clean cabinet interior as needed.	5	9	1800	17100	
POWER AND CONTROL: FEED SINGULATION DISTRIBUTION MAIN CONTROL CABINET (FSD-MCC) SIDE 2	90.	**Inspect and clean side two.** 1. Check inside cabinet for indications of worn or damaged components. 2. Clean cabinet interior as needed.	5	9	1800	17100	
POWER AND CONTROL: FEED SINGULATION DISTRIBUTION CONTROL CABINET (FSD-DCC) SIDE 1	91.	**Inspect and clean side one.** 1. Check inside cabinet for indications of worn or damaged components. 2. Clean cabinet interior as needed. (8 per side)	40	9	1800	17100	
POWER AND CONTROL: FEED SINGULATION DISTRIBUTION CONTROL CABINET (FSD-DCC) SIDE 2	92.	**Inspect and clean side two.** 1. Check inside cabinet for indications of worn or damaged components. 2. Clean cabinet interior as needed. (8 per side)	40	9	1800	17100	
POWER AND CONTROL: INDUCTION MAIN CONTROL CABINET (IMCC) SIDE 1	93.	**Inspect and clean side one.** 1. Check inside cabinet for indications of worn or damaged components. 2. Clean cabinet interior as needed. (1 per side)	5	9	1800	17100	
POWER AND CONTROL: INDUCTION MAIN CONTROL CABINET (IMCC) SIDE 2	94.	**Inspect and clean side two.** 1. Check inside cabinet for indications of worn or damaged components. 2. Clean cabinet interior as needed. (1 per side)	5	9	1800	17100	

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Equipment Nomenclature Automated Package Processing Systems	Equipment Model								Bulletin Filename MM10086AD				Occurrence			

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.
POWER AND CONTROL: OPERATOR CONTROL CABINET (OCC)	95.	**Inspect and clean.** 1. Check inside cabinet for indications of worn or damaged components. 2. Clean cabinet interior as needed. (1 per 58 Bins) Multiply by OCC.	5	9	1800	17100	
POWER AND CONTROL: DISCRETE DISTRIBUTED SOURCE OF SUPPLY (DDSS)	96.	**Inspect and clean.** 1. Check inside cabinet for indications of worn or damaged components. 2. Clean cabinet interior as needed.	5	9	1800	17100	
POWER AND CONTROL: 70 VDC POWER SUPPLY	97.	**Inspect and clean.** 1. Check inside cabinet for indications of worn or damaged components. 2. Clean cooling fan and cabinet interior as needed. (1 per 200 ft power rail or per 100 carrier cells) 3. Loosen thumb-screws, remove and vacuum filter screens. Multiply by 70 VDC Power Supply.	5	9	1800	17100	
POWER AND CONTROL: AUTOMATIC DISTRIBUTED CONTROL CABINET (ADCC) SIDE 1	98.	**Inspect and clean side one.** 1. Check inside cabinet for indications of worn or damaged components. 2. Clean cabinet interior as needed. (3 per side)	15	9	1800	17100	
POWER AND CONTROL: AUTOMATIC DISTRIBUTED CONTROL CABINET (ADCC) SIDE 2	99.	**Inspect and clean side two.** 1. Check inside cabinet for indications of worn or damaged components. 2. Clean cabinet interior as needed. (3 per side)	15	9	1800	17100	

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	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature: Automated Package Processing Systems	Equipment Model										Bulletin Filename: MM10086AD					Occurrence

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.
POWER AND CONTROL: SEMI-AUTOMATIC DISTRIBUTED CONTROL CABINET (SADCC) SIDE 1	100.	**Inspect and clean side one.** 1. Check inside cabinet for indications of worn or damaged components. 2. Clean cabinet interior as needed (1 per side).	5	9	1800	17100	
POWER AND CONTROL: SEMI-AUTOMATIC DISTRIBUTED CONTROL CABINET (SADCC) SIDE 2	101.	**Inspect and clean side two.** 1. Check inside cabinet for indications of worn or damaged components. 2. Clean cabinet interior as needed. (1 per side)	5	9	1800	17100	
POWER AND CONTROL: UNLOADER DISTRIBUTED CONTROL CABINET (UDCC) SIDE 1	102.	**Inspect and clean side one.** 1. Check inside cabinet for indications of worn or damaged components. 2. Clean cabinet interior as needed. (1 per side)	5	9	1800	17100	
POWER AND CONTROL: UNLOADER DISTRIBUTED CONTROL CABINET (UDCC) SIDE 2	103.	**Inspect and clean side two.** 1. Check inside cabinet for indications of worn or damaged components. 2. Clean cabinet interior as needed. (1 per side)	5	9	1800	17100	
POWER AND CONTROL: GROUND CENTRAL PROCESSING UNIT (GCPU)	104.	**Inspect and clean.** 1. Check inside cabinet for indications of worn or damaged components. 2. Clean cabinet interior as needed. (1 per 120 ft tone rail or per 60 carrier cells) Multiply by GCPU.	5	9	1800	17100	
POWER AND CONTROL: SUPERVISOR PLATFORM	105.	**Check cables and wiring.** Visually check the physical integrity of all externally accessible cables, wiring, and connectors, to the supervisor's platform and surrounding power and control cabinets.	5	7	7200	68400	

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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.
APPS SYSTEM: POWER UP	106.	**Restore system to operational mode.** **WARNING** **Be careful when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts** 1. Restore the system to operational mode as prescribed by the current local lockout/restore procedures. 2. Ensure that the system is in the operational mode. 3. System-wide, verify that all status indicators reflect healthy operation. 4. Verify that computer cabinet cooling fans are operational by observing exhaust streamers. 5. Investigate any failures or abnormalities and initiate corrective action as needed.	13	ALL	1	1	
APPS SYSTEM: LOGS	107.	**Review log book and reports.** **WARNING** **Be cautious when working around or on equipment when power has been applied.** 1. Review SMS log book and RTF faults for problems. 2. Review SMS status screen for problems. 3. Review End of Run reports. 4. Investigate problems and initiate corrective action.	10	9	0	0	

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	0	3	A	P	P	S					A	A	0	0	1	M
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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.
APPS: SYSTEM	108.	**Check mushroom E-Stops (2 people recommended).** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** 1. Start machine (all conveyors and carrier cells running). 2. Activate E-Stop Switch and verify the E-Stop switch latches in the activated position. Note: Start with a different E-Stop each time this task is issued and performed. 3. Verify machine stops. 4. Verify E-Stop Switch internal LED illuminates. 5. Verify red lamp on stack light illuminates. 6. Verify horns sound two sequential tones. 7. Reset emergency stop switch. 8. At SMCC, verify the Clear Fault button illuminates. 9. At SMCC, reset fault. 10. Without restarting machine, check remaining E-Stops by repeating step 2, and steps 4 through 9 for each E-Stop switch. 11. Review system log on SMS and ensure that all E -Stops were reported. Multiply by E-Stop.	.2	7			4

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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.
APPS: SYSTEM	109.	**Check pull cords (2 people recommended).** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** 1. Verify pull-cord tension is set properly by visually checking the pull-cord switch tension indicator. 2. Activate pull-cord switch. Note: Start with a different E-Stop each time this task is issued and performed. 3. Verify red lamp on stack light illuminates. 4. Verify horns sound two sequential tones. 5. At SMCC, verify the Clear Fault button illuminates. 6. At SMCC, reset fault. 7. Without restarting machine, repeat step 1 through 6 for each pull-cord. (8 per side and 2 for closed loop sorter) Multiply by sides.	10	7			4
APPS: SYSTEM	110.	**Check Unloader gates. Only used when APCU is at end of load belt.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** 1. Visually check for misalignment or damage.	1	7			1

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					Run Hours	Pieces Fed (000)	Freq.
		2. Open gate. 3. Verify that APCU will not operate. 4. Close gate. 5. At APCU operator interface panel, clear interlock. 6. Repeat steps 1 through 4 for second gate. Multiply by APCU w/gate.					
FEED SUBSYSTEM: APCU AND PUN SAFETY PHOTOEYES	111.	**Check Unloader safety photoeyes.** **WARNING** **Be cautious when working around or on equipment when power has been applied.** There are three safety photoeyes on each Unloader located at ankle, waist, and chest heights. 1. Block and unblock chest-height safety photoeye. 2. Verify blue stack light illuminates. 3. Verify fault light illuminates on Unloader operator interface panel. 4. Clear fault. 5. Repeat steps 1 through 4 for waist-height and ankle-height safety photoeyes. Multiply by: APCU+PUN.	1	7			1
FEED SUBSYSTEM: UNSTACKER MODULE ACCESS DOOR INTERLOCKS	112.	**Check untracked module access door interlocks (2 people recommended)**. **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** 1. Start machine (All conveyors and carrier cells	7	7			1

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					Run Hours	Pieces Fed (000)	Freq.
		running). 2. Open upper access door on one side. 3. Verify Unstacker Conveyors stop. 4. Verify horns sound two sequential tones. 5. Verify red and green stack lights flash. 6. At FSD MCC, verify fault light illuminates 7. Check door for damage or misalignment. 8. Close upper access door. 9. At FSD MCC, clear fault. 10. Verify that Unstacker Conveyor starts. 11. Repeat steps 2 through 9 for the lower access door, and both upper and lower access doors on the opposite side. 12. Stop machine. 13. Review system log at SMS to ensure that all door interlocks were reported. Multiply by sides.					
FEED SUBSYSTEM: APCU AND PUN	113.	**Check Unloader components and operation.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** 1. Check safety photoeyes and proximity switches on each Unloader for damage or misalignment. 2. Check for damage to piston during operation of Unloaders. 3. Operate Unloaders and check for abnormal noises and indication of binding. Multiply by APCU+PUN.	2	7	20	190	

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					Run Hours	Pieces Fed (000)	Freq.
FEED SUBSYSTEM: PHOTOEYES (ALL MODULES IN FEED SYSTEM) SIDE 1	114.	**Check photoeye condition on side one.** **WARNING** **Be cautious when working around or on equipment when power has been applied.** 1. Check photoeyes for damage. 2. Ensure that photoeyes mounting hardware is secure. 3. Perform photoeye flicker diagnostic to check for false triggering due to loose photoeye mounting hardware, conveyor belting, etc.	5	9	20	190	
FEED SUBSYSTEM: PHOTOEYES (ALL MODULES IN FEED SYSTEM) SIDE 2	115.	**Check photoeye condition on side two.** **WARNING** **Be cautious when working around or on equipment when power has been applied.** 1. Check photoeyes for damage. 2. Ensure that photoeyes mounting hardware is secure. 3. Perform photoeye flicker diagnostic to check for false triggering due to loose photoeye mounting hardware, conveyor belting, etc.	5	9	20	190	
FEED SUBSYSTEM: ALL CONVEYORS SIDE 1	116.	**Check belting condition on side one.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** With system conveyors running, visually check belt condition on the following conveyors for tracking, wear, damage, stretching, and debris	4	7	140	1330	

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					Run Hours	Pieces Fed (000)	Freq.
		(ex. label or tape stuck to belt). Listen for abnormal noises paying particular attention to rollers and bull-noses. After completing visual and audio check, stop conveyors to investigate detected problems. Initiate corrective action as required: 1. Load Conveyor (1) 2. Incline Conveyor (1) 3. Dosing Conveyor (1) 4. Unstacker Conveyors (6) 5. Traffic Controller (1 w/18 belts) 6. Delta Wing Roller Beds 7. Metering Conveyor (4) 8. DCS/AARS Conveyors (4)					
FEED SUBSYSTEM: ALL CONVEYORS SIDE 2	117.	**Check belting condition on side two.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** With system conveyors running: visually check belt condition on the following conveyors for tracking, wear, damage, stretching, and debris (ex. label or tape stuck to belt). Listen for abnormal noises paying particular attention to rollers and bull-noses. After completing visual and audio check, stop conveyors to investigate detected problems. Initiate corrective action as required: 1. Load Conveyor (1) 2. Incline Conveyor (1) 3. Dosing Conveyor (1) 4. Unstacker Conveyors (6)	4	7	140	1330	

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					Run Hours	Pieces Fed (000)	Freq.
		5. Traffic Controller (1 w/18 belts) 6. Delta Wing Roller Beds 7. Metering Conveyor (4) 8. DCS/AARS Conveyors (4)					
FEED SUBSYSTEM: APCU AND PUN HYDRAULIC UNIT	118.	**Check Unloader hydraulic unit operation (2 people recommended).** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** **WARNING** **If the APCU pressure levels are near or in excess of 1750 PSI, the APCU must be removed from service immediately and repaired.** **WARNING** **If the PUN pressure levels are near or in excess of 1400 PSI, the PUN must be removed from service immediately and repaired.** 1. Visually check pump, reservoir, filter, and all connections for leaking fluid. 2. With Unloader empty, operate Unloader and observe for the following: a. Verify smooth lift performance during operation. b. Visually check gauges for damage. c. Observe filter pressure gauge. Pressure in excess of 20 PSI indicates clogged filter. Initiate action to replace.	1	7	140	1330	

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model								Bulletin Filename MM10086AD				Occurrence			

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 The typical empty APCU pressure reading ranges are as below: *Stage one Tilt Up: 500 PSI to 750 PSI *Stage two Dump Up: 700 PSI to 850 PSI *Stage three Dump Down: 950 PSI to 1350 PSI *Stage four Tilt Down: 1100 PSI to 1450 PSI The maximum operating pressure with rated capacity should be less than 1750 PSI. The system release pressure is pre-set at 1750 PSI by the manufacturer. **NOTE** The typical empty PUN pressure reading ranges are as below: *Stage one Tilt Up: 450 PSI to 625 PSI *Stage two Lift Up: 400 PSI to 575 PSI *Stage three Return Home & Tilt Down: 600 PSI to 825 PSI The maximum operating pressure with rated capacity should be less than 1400 PSI. The system release pressure is pre-set at 1400 PSI by the manufacturer. Multiply by APCU+PUN.					
FEED SUBSYSTEM: ALL CONVEYORS SIDE 1	119.	**Monitor motor and gearbox temperature on side one.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** 1. Using infra-red temperature measurement	15	7	1800	17100	

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature: Automated Package Processing Systems	Equipment Model										Bulletin Filename: MM10086AD		Occurrence			

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.
		instrument, check the temperature of the motors and gearboxes on the following conveyors. Remove covers as required to gain access: a. Load Conveyor (1) b. Incline Conveyor (1) c. Dosing and Unstacker Conveyor (7) d. Traffic Control Conveyor (6) e. Delta Wing Aligner Conveyor (5) f. Metering Conveyor (4) 2. Record measurements in SMS log book. Compare current results with results from previous checks. 3. Initiate action to investigate and correct components exhibiting excessive operating temperature.					
FEED SUBSYSTEM: ALL CONVEYORS SIDE 2	120.	**Monitor motor and gearbox temperature on side two.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** 1. Using infra-red temperature measurement instrument, check the temperature of the motors and gearboxes on the following conveyors. Remove covers as required to gain access: a. Load Conveyor (1) b. Incline Conveyor (1) c. Dosing and Unstacker Conveyor (7) d. Traffic Control Conveyor (6)	15	7	1800	17100	

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model								Bulletin Filename MM10086AD				Occurrence			

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. Delta Wing Aligner Conveyor (5) f. Metering Conveyor (4) 2. Record measurements in SMS log book. Compare current results with results from previous checks. 3. Initiate action to investigate and correct components exhibiting excessive operating temperature.					
FEED SUBSYSTEM: ALL CONVEYORS SIDE 1	121.	**Monitor conveyor components for excessive noise on side one.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** 1. Using ultra-sonic measurement instrument, check the motors and gearboxes on the following conveyors. Remove covers as required to gain access: a. Load Conveyor (1) b. Incline Conveyor (1) c. Dosing and Unstacker Conveyor (7) d. Traffic Control Conveyor (6) e. Delta Wing Aligner Conveyor (5) f. Metering Conveyor (4) 2. Record measurements in SMS log book. Compare current results with results from previous checks. 3. Initiate action to investigate and correct components exhibiting excessive operating temperature.	15	7	1800	17100	

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature: Automated Package Processing Systems	Equipment Model										Bulletin Filename: MM10086AD					Occurrence

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.
FEED SUBSYSTEM: ALL CONVEYORS SIDE 2	122.	**Monitor conveyor components for excessive noise on side two.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** 1. Using ultra-sonic measurement instrument, check the motors and gearboxes on the following conveyors. Remove covers as required to gain access: a. Load Conveyor (1) b. Incline Conveyor (1) c. Dosing and Unstacker Conveyor (7) d. Traffic Control Conveyor (6) e. Delta Wing Aligner Conveyor (5) f. Metering Conveyor (4) 2. Record measurements in SMS log book. Compare current results with results from previous checks. 3. Initiate action to investigate and correct components exhibiting excessive operating temperature.	15	7	1800	17100	
IMAGE AARS: DCS AND SEMI_AUTO INDUCTION STATION SIDE 1	123.	**Check image quality and mailpiece tracking on side one.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.**	20	10	140	1330	

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model								Bulletin Filename MM10086AD				Occurrence			

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. At the SMS, place the system in maintenance mode. 2. Set up the Image Capture diagnostic module to capture every mailpiece. 3. Start system and feed 5 mailpieces (live or test) on the FSD and the Semi-Automatic Induction Station(s). 4. At each of the Image Capture computers (top, bottom, left, and right): a. Check Gray Scale Image quality. Observe for distortion, lines, clarity, & focus. b. Check mailpiece tracking. Observe that full side of mailpiece is visible, not clipped off on one side.					
IMAGE AARS: DCS AND SEMI_AUTO INDUCTION STATION SIDE 2	124.	**Check image quality and mailpiece tracking on side two.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** 1. At the SMS, place the system in maintenance mode. 2. Set up the Image Capture diagnostic module to capture every mailpiece. 3. Start system and feed 5 mailpieces (live or test) on the FSD and the Semi-Automatic Induction Station(s). 4. At each of the Image Capture computers (top, bottom, left, and right): a. Check Gray Scale Image quality. Observe for distortion, lines, clarity, & focus. b. Check mailpiece tracking. Observe that	20	10	140	1330	

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature: Automated Package Processing Systems	Equipment Model										Bulletin Filename: MM10086AD					Occurrence

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.
		full side of mailpiece is visible, not clipped off on one side.					
IMAGE AARS: DCX 1-2 METTLER SCALE CONVEYOR SIDE 1	125.	**Check scale and load cells on side one.** **WARNING** **Be cautious when working around or on equipment when power has been applied.** 1. Check display for zero (0) with no load. 2. Check for accuracy using standard weight of 50 lb. (use two 25 lb. weights). 3. Measure standard weight on each corner of scale to ensure that all load cells are working properly.	6	7	600	5700	
IMAGE AARS: DCX 1-2 METTLER SCALE CONVEYOR SIDE 2	126.	**Check scale and load cells on side two.** **WARNING** **Be cautious when working around or on equipment when power has been applied.** 1. Check display for zero (0) with no load. 2. Check for accuracy using standard weight of 50 lb. (use two 25 lb. weights). 3. Measure standard weight on each corner of scale to ensure that all load cells are working properly.	6	7	600	5700	
IMAGE AARS: ALL CONVEYORS SIDE 1	127.	**Monitor motor and gearbox temperature on side one.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.**	4	7	1800	17100	

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model								Bulletin Filename MM10086AD				Occurrence			

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. Using infra-red temperature measurement instrument, check the temperature of the motors and gearboxes on the following conveyors. a. AARS DCX 1-1 b. AARS DCX 1-2 c. AARS DCX 1-3 d. AARS DCX 2-2 2. Record measurements in SMS log book. Compare current results with results from previous checks. 3. Initiate action to investigate and correct components exhibiting excessive operating temperature.					
IMAGE AARS: ALL CONVEYORS SIDE 2	128.	**Monitor motor and gearbox temperature on side two.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** 1. Using infra-red temperature measurement instrument, check the temperature of the motors and gearboxes on the following conveyors. a. AARS DCX 1-1 b. AARS DCX 1-2 c. AARS DCX 1-3 d. AARS DCX 2-2 2. Record measurements in SMS log book. Compare current results with results from previous checks. 3. Initiate action to investigate and correct	4	7	1800	17100	

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature: Automated Package Processing Systems	Equipment Model:								Bulletin Filename: MM10086AD				Occurrence:			

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.
		components exhibiting excessive operating temperature.					
IMAGE AARS: ALL CONVEYORS SIDE 1	129.	**Monitor conveyor components for excessive noise on side one.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** 1. Using ultra-sonic measurement instrument, check the motors, gearboxes, and rollers on the following conveyors: a. AARS DCX 1-1 b. AARS DCX 1-2 c. AARS DCX 1-3 d. AARS DCX 2-1 e. AARS DCX 2-2 2. Record measurements in SMS log book. Compare current results with results from previous checks. 3. Initiate action to investigate and correct components exhibiting excessive noise.	5	7	1800	17100	
IMAGE AARS: ALL CONVEYORS SIDE 2	130.	**Monitor conveyor components for excessive noise on side two.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.**	5	7	1800	17100	

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model								Bulletin Filename MM10086AD				Occurrence			

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. Using ultra-sonic measurement instrument, check the motors, gearboxes, and rollers on the following conveyors: a. AARS DCX 1-1 b. AARS DCX 1-2 c. AARS DCX 1-3 d. AARS DCX 2-1 e. AARS DCX 2-2 2. Record measurements in SMS log book. Compare current results with results from previous checks. 3. Initiate action to investigate and correct components exhibiting excessive noise.					
INDUCTION SUBSYSTEM: INDUCTION STATION GATE INTERLOCKS	131.	**Check induction station gate interlocks.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** 1. Start machine (all conveyors and carrier cells running). 2. Open gate to first induction and inspect gate for damage or misalignment. 3. Verify the first induction station stops. 4. Leave first gate open and proceed to next gate. 5. Repeat steps 2 through 4 for Inductions Stations 2, 3, and Semi-Auto. 6. Close the gate for Semi-Auto Induction Station. 7. At Induction Station 3 operator interface panel, clear interlock.	13	7			1

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
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	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model								Bulletin Filename MM10086AD				Occurrence			

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. Observe Semi-Auto Induction Station restarts. 9. Repeat 6 through 8 for Induction Stations 3, 2 and 1. 10. Stop machine. 11. Review system log at SMS to ensure interlocks were reported. Multiply by sides.					
INDUCTION SUBSYSTEM: DEBRIS BIN INTERLOCK	132.	**Check debris bin access door interlock (2 people recommended)**. **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** 1. Start machine (All conveyors and carrier cells running). 2. Open debris bin access door. 3. Observe red stack light flashes. 4. Observe all FSD modules from Shoe sorter back to Load Module stop immediately. Powered rollers and Induction Stations will run approximately 15 seconds. 5. At FSD MCC, verify that fault light illuminates. 6. Check door for damage and misalignment. 7. Close debris bin access door. 8. At FSD MCC, clear fault. 9. At FSD MCC, start FSD by depressing start push-button. 10. Verify all FSD conveyors start. 11. Stop machine.	9	7			1

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model										Bulletin Filename MM10086AD				Occurrence	

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. Review system log at SMS to ensure access door interlock was reported. Multiply by sides.					
INDUCTION SUBSYSTEM: PHOTOEYES SIDE 1	133.	**Check photoeye condition on side one.** **WARNING** **Be cautious when working around or on equipment when power has been applied.** Check photoeyes for damage. 1. Ensure that photoeyes mounting hardware is secure. 2. Perform photoeye flicker diagnostic to check for false triggering due to loose photoeye mounting hardware, conveyor belting, etc.	9	9	20	190	
INDUCTION SUBSYSTEM: PHOTOEYES SIDE 2	134.	**Check photoeye condition on side two.** **WARNING** **Be cautious when working around or on equipment when power has been applied.** Check photoeyes for damage. 1. Ensure that photoeyes mounting hardware is secure. 2. Perform photoeye flicker diagnostic to check for false triggering due to loose photoeye mounting hardware, conveyor belting, etc.	9	9	20	190	
INDUCTION SUBSYSTEM: SEMI AUTO INDUCT SCALE SIDE 1	135.	**Check scale and conveyor on side one.** **WARNING** **Be cautious when working around or on equipment when power has been applied.** 1. Check display for zero (0) with no load. 2. Check for accuracy using standard weight of 50 lb. (use two 25 lb. weights).	6	7	140	1330	

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature: Automated Package Processing Systems	Equipment Model:								Bulletin Filename: MM10086AD				Occurrence:			

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. Measure standard weight on each corner of scale to ensure that all load cells are working properly.					
INDUCTION SUBSYSTEM: SEMI AUTO INDUCT SCALE SIDE 2	136.	**Check scale and conveyor on side two.** **WARNING** **Be cautious when working around or on equipment when power has been applied.** 1. Check display for zero (0) with no load. 2. Check for accuracy using standard weight of 50 lb. (use two 25 lb. weights). 3. Measure standard weight on each corner of scale to ensure that all load cells are working properly.	6	7	140	1330	
INDUCTION SUBSYSTEM: ALL CONVEYORS SIDE 1	137.	**Check belting condition on side one.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** With system conveyors running, visually check belt condition on the following conveyors for tracking, wear, damage, stretching, and debris (ex. label or tape stuck to belt). Listen for abnormal noises paying particular attention to rollers and bull-noses. After completing visual and audio check, stop conveyors to investigate detected problems. Initiate corrective action as required: 1. 90 Degree Incline and High Speed Conveyors (2). Pay particular attention to belt rib condition. 2. Sync module belts DX1-1 through DX1-4 and DX2-1 (5) 3. Auto-Induct 45 Degree Loading and	6	7	140	1330	

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	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model								Bulletin Filename MM10086AD				Occurrence			

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.
		Unloading Conveyors (6) 4. Auto-Induct 90 Degree Conveyor (3) 5. Auto-Induct Sync Conveyors (6) 6. Semi-Auto Induction Coding Conveyor (2) 7. Semi-Auto Induction Scale Conveyor (1) 8. Semi-Auto Induction Synchronizing Conveyor (1) 9. Semi-Auto Induction Unloading Conveyor (1)					
INDUCTION SUBSYSTEM: ALL CONVEYORS SIDE 2	138.	**Check belting condition on side two.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** With system conveyors running, visually check belt condition on the following conveyors for tracking, wear, damage, stretching, and debris (ex. label or tape stuck to belt). Listen for abnormal noises paying particular attention to rollers and bull-noses. After completing visual and audio check, stop conveyors to investigate detected problems. Initiate corrective action as required: 1. 90 Degree Incline and High Speed Conveyors (2). Pay particular attention to belt rib condition. 2. Sync module belts DX1-1 through DX1-4 and DX2-1 (5) 3. Auto-Induct 45 Degree Loading and Unloading Conveyors (6) 4. Auto-Induct 90 Degree Conveyor (3) 5. Auto-Induct Sync Conveyors (6) 6. Semi-Auto Induction Coding Conveyor (2)	6	7	140	1330	

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature: Automated Package Processing Systems	Equipment Model:								Bulletin Filename: MM10086AD				Occurrence:			

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. Semi-Auto Induction Scale Conveyor (1) 8. Semi-Auto Induction Synchronizing Conveyor (1) 9. Semi-Auto Induction Unloading Conveyor (1)					
INDUCTION SUBSYSTEM: SHOE SORTER SIDE 1	139.	**Check proximity sensors on side one.** **WARNING** **Be cautious when working around or on equipment when power has been applied.** Visually inspect the following proximity sensors for damage and check to ensure mounting hardware is secure. Jog the shoe sorter and observe objects as they pass the proximity sensor. Check for proper alignment, and check for activation indicated by the proximity sensor LED: 1. 0-SLAT PROX SWITCH 2. CHAIN STRETCH PROX SWITCH 3. HOME POSITION PROX SWITCH	12	9	600	5700	
INDUCTION SUBSYSTEM: SHOE SORTER SIDE 2	140.	**Check proximity sensors on side two.** **WARNING** **Be cautious when working around or on equipment when power has been applied.** Visually inspect the following proximity sensors for damage and check to ensure mounting hardware is secure. Jog the shoe sorter and observe objects as they pass the proximity sensor. Check for proper alignment, and check for activation indicated by the proximity sensor LED: 1. 0-SLAT PROX SWITCH 2. CHAIN STRETCH PROX SWITCH 3. HOME POSITION PROX SWITCH	12	9	600	5700	

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model								Bulletin Filename MM10086AD				Occurrence			

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.
INDUCTION SUBSYSTEM: SHOE SORTER SIDE 1	141.	**Check shoe sorter condition on side one.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** Remove several side panels to enable access for check. Place Shoe Sorter in maintenance mode and jog the Shoe Sorter to position a section of conveyor in the accessible area and then: 1. Visually check carriage assembly leaf springs for damage or loose hardware. 2. Check brake pads for proper function using a force gauge. Force required to extend and retract shoe cluster from rest should be 0.5 to 0.9 lbs. 3. Visually check slats for wear, damage, loose/missing hardware, or maladjustment. 4. Visually check chain for dirt on rail, misalignment, lack of lubrication, dirt from oiling brush, or binding roller. 5. Visually check shoes for damage and wear.	44	7	600	5700	
INDUCTION SUBSYSTEM: SHOE SORTER SIDE 2	142.	**Check shoe sorter condition on side two.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** Remove several side panels to enable access for check. Place Shoe Sorter in maintenance mode and jog the Shoe Sorter to position a section of conveyor in the accessible area and then:	44	7	600	5700	

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model								Bulletin Filename MM10086AD				Occurrence			

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. Visually check carriage assembly leaf springs for damage or loose hardware. 2. Check brake pads for proper function using a force gauge. Force required to extend and retract shoe cluster from rest should be 0.5 to 0.9 lbs. 3. Visually check slats for wear, damage, loose/missing hardware, or maladjustment. 4. Visually check chain for dirt on rail, misalignment, lack of lubrication, dirt from oiling brush, or binding roller. 5. Visually check shoes for damage and wear.					
INDUCTION SUBSYSTEM: SHOE SORTER SIDE 1	143.	**Check chain, sprockets, and bearings on side one.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** 1. Jog Shoe Sorter and visually check condition of chain assembly for worn or damaged rollers. 2. Check drive shaft sprocket and pillow-blocks for worn teeth or loose hardware. 3. Check tail shaft sprocket and pillow-blocks for worn teeth or loose hardware.	10	7	1800	17100	
INDUCTION SUBSYSTEM: SHOE SORTER SIDE 2	144.	**Check chain, sprockets, and bearings on side two.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running.**	10	7	1800	17100	

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model										Bulletin Filename MM10086AD					Occurrence

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.
		Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts. 1. Jog shoe sorter and visually check condition of chain assembly for worn or damaged rollers. 2. Check drive shaft sprocket and pillow-blocks for worn teeth or loose hardware. 3. Check tail shaft sprocket and pillow-blocks for worn teeth or loose hardware.					
INDUCTION SUBSYSTEM: ALL CONVEYORS SIDE 1	145.	**Monitor conveyor components for excessive noise on side one.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** 1. Using ultra-sonic measurement instrument, check the motors, gearboxes, bearings, and rollers on the following conveyors. Remove covers as required to gain access to: a. 90 Degree Incline and High Speed Conveyors (2) b. Sync Module DX1-1 through DX1-4 and DX2-1 Conveyors (5) c. Shoe Sorter Conveyor (1) d. Recirculation Conveyor (1) e. Rework Conveyor (1) f. Auto-Induction 45 Degree Loading and Unloading Conveyers (6) g. Auto-Induction Sync conveyor (3) h. Semi-Auto Induction Roller Table Conveyor (1)	42	7	1800	17100	

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature: Automated Package Processing Systems	Equipment Model								Bulletin Filename: MM10086AD				Occurrence			

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.
		i. Semi-Auto Induction Coding Conveyors (2) j. Semi-Auto Induction Scale Conveyor (1) k. Semi-Auto Synchronizing Conveyor (1) l. Semi-Auto Induction Unloading Conveyor (1) 2. Record measurements in SMS log book. Compare current results with results from previous checks. 3. Initiate action to investigate and correct components exhibiting excessive noise.					
INDUCTION SUBSYSTEM: ALL CONVEYORS SIDE 2	146.	**Monitor conveyor components for excessive noise on side two.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** 1. Using ultra-sonic measurement instrument, check the motors, gearboxes, bearings, and rollers on the following conveyors. Remove covers as required to gain access to: a. 90 Degree Incline and High Speed Conveyors (2) b. Sync Module DX1-1 through DX1-4 and DX2-1 Conveyors (5) c. Shoe Sorter Conveyor (1) d. Recirculation Conveyor (1) e. Rework Conveyor (1) f. Auto-Induction 45 Degree Loading and Unloading Conveyers (6) g. Auto-Induction Sync Conveyor (3) h. Semi-Auto Induction Roller Table Conveyor (1)	42	7	1800	17100	

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model								Bulletin Filename MM10086AD				Occurrence			

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.
		i. Semi-Auto Induction Coding Conveyors (2) j. Semi-Auto Induction Scale Conveyor (1) k. Semi-Auto Synchronizing Conveyor (1) l. Semi-Auto Induction Unloading Conveyor (1) 2. Record measurements in SMS log book. Compare current results with results from previous checks. 3. Initiate action to investigate and correct components exhibiting excessive noise.					
INDUCTION SUBSYSTEM: ALL CONVEYORS SIDE 1	147.	**Monitor motor and gearbox temperature on side one.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** 1. Using infra-red temperature measurement instrument, check the temperature of the motors and gearboxes on the following conveyors. Remove access covers as required to gain access: a. 90 Degree Incline and High Speed Conveyors (2) b. Sync Module DX1-1 through DX1-4 and DX2-1 Conveyors (5) c. Shoe Sorter Conveyor (1) d. Recirculation Conveyor (1) e. Rework Conveyor (1) f. Auto-Induction 45 Degree Loading and Unloading Conveyers (6) g. Auto-Induction Sync Conveyor (6)	28	7	1800	17100	

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model										Bulletin Filename MM10086AD					Occurrence

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.
		h. Semi-Auto Induction Roller Table Conveyor (1) i. Semi-Auto Induction Coding Conveyors (2) j. Semi-Auto Induction Scale Conveyor (1) k. Semi-Auto Synchronizing Conveyor (1) l. Semi-Auto Induction Unloading Conveyor (1) 2. Record measurements in SMS log book. Compare current results with results from previous checks. 3. Initiate action to investigate components exhibiting excessive operating temperature.					
INDUCTION SUBSYSTEM: ALL CONVEYORS SIDE 2	148.	**Monitor motor and gearbox temperature on side two.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** 1. Using infra-red temperature measurement instrument, check the temperature of the motors and gearboxes on the following conveyors. Remove access covers as required to gain access: a. 90 Degree Incline and High Speed Conveyors (2) b. Sync Module DX1-1 through DX1-4 and DX2-1 Conveyors (5) c. Shoe Sorter Conveyor (1) d. Recirculation Conveyor (1) e. Rework Conveyor (1) f. Auto-Induction 45 Degree Loading and Unloading Conveyers (6)	28	7	1800	17100	

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model								Bulletin Filename MM10086AD				Occurrence			

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. Auto-Induction Sync Conveyor (6) h. Semi-Auto Induction Roller Table Conveyor (1) i. Semi-Auto Induction Coding Conveyors (2) j. Semi-Auto Induction Scale Conveyor (1) k. Semi-Auto Synchronizing Conveyor (1) l. Semi-Auto Induction Unloading Conveyor (1) 2. Record measurements in SMS log book. Compare current results with results from previous checks. 3. Initiate action to investigate components exhibiting excessive operating temperature.					
INDUCTION SUBSYSTEM: REWORK ROLLER CONVEYOR SIDE 1	149.	**Check belting condition on side one.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** Visually check drive belt for excessive wear or damage.	3	7	3600	34200	
INDUCTION SUBSYSTEM: REWORK ROLLER CONVEYOR SIDE 2	150.	**Check belting condition on side two.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.**	3	7	3600	34200	

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	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model										Bulletin Filename MM10086AD					Occurrence

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.
		Visually check drive belt for excessive wear or damage.					
INDUCTION SUBSYSTEM: SHOE SORTER SIDE 1	151.	**Check for excessive noise on side one.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** 1. With all covers in place and with shoe sorter running, use sound pressure level measurement instrument to check for excessive noise from Shoe Sorter. Excessive is equal to or greater than 80 dB using the A-weighted scale. 2. Take measurements along length of conveyor and observe for increases in a particular area, or increases as a particular section of the shoe sorter conveyor passes by. 3. Initiate corrective action as required.	3	7	7200	68400	
INDUCTION SUBSYSTEM: SHOE SORTER SIDE 2	152.	**Check for excessive noise on side two.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** 1. With all covers in place and with shoe sorter running, use sound pressure level measurement instrument to check for excessive noise from Shoe Sorter. Excessive	3	7	7200	68400	

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model								Bulletin Filename MM10086AD				Occurrence			

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.
		is equal to or greater than 80 dB using the A-weighted scale. 2. Take measurements along length of conveyor and observe for increases in a particular area, or increases as a particular section of the shoe sorter conveyor passes by. 3. Initiate corrective action as required.					
SORTER SUBSYSTEM: MAINTENANCE TEST STATION ACCESS DOOR SOLENOID	153.	**Check maintenance test station access door solenoid.** **WARNING** **Be cautious when working around or on equipment when power has been applied.** 1. Ensure system is not in maintenance mode. 2. Attempt to open the Maintenance Test Station Access doors. 3. Verify that solenoid prevents doors from opening. 4. From SMS, place sorter in maintenance mode. 5. Verify that solenoid has retracted by opening the Maintenance Test Station Access doors. 6. Close the Maintenance Test Station Access doors and take machine out of maintenance mode.	4	7			1
SORTER SUBSYSTEM: SORTER GATE INTERLOCKS	154.	**Check sorter gate interlocks (2 people recommended, closed loop system only).** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.**	11	7			1

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model										Bulletin Filename MM10086AD					Occurrence

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. Start machine (all conveyors and carrier cells running). 2. Activate one of the Sorter Access Gate Interlock Switches by opening the gate. Note: Start with a different access gate each time this task is issued and performed. 3. Verify machine stops. 4. Verify red lamp on stack light illuminates. 5. Verify horns sound two sequential tones. 6. Check gate for damage and misalignment. 7. At SMCC, verify the Clear Fault button illuminates. 8. At SMCC, reset fault. 9. Without restarting machine, repeat step 2 and steps 4 through 8 for the second Sorter Access Gate Interlock Switch. 10. Review system log at SMS to ensure interlocks were reported. Multiply by sort configuration.					
SORTER SUBSYSTEM: CARRIER CELLS, DRIVEN AND NON-DRIVEN	155.	**Check the condition of 10% of the carrier cells (driven and non-driven) as follows:** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** 1. Jog machine to position carrier cells in maintenance test station area. 2. Check carrier cell stay-bolt to ensure it is not bent, cracked, or showing signs of fatigue. 3. Check carrier cell stay-bolt ball-joints for excessive wear and play.	1.1	7	1	1	

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	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model								Bulletin Filename MM10086AD				Occurrence			

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. Log the carrier cell numbers checked during this check and ensure all cells are checked on a rotational basis. Multiply by 10% carrier cell.					
SORTER SUBSYSTEM: CARRIER CELLS, DRIVEN AND NON-DRIVEN	156.	**Visually check stay-bolts and ball-joints while jogging sorter.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** Visually check the condition of 100% of the carrier cells (driven and non-driven) as follows: 1. From a stationary position, jog the sorter carrier cell train and visually check each carrier cell stay-bolt and ball-joint as the cells pass by. Observe for obvious signs of failure. 2. Check carrier cell Stay-Bolt to ensure it is not bent, cracked, or showing signs of fatigue. 3. Check carrier cell Stay-Bolts and Ball-Joints for excessive wear and play. Multiply by carrier cells.	.03	7	1	1	
SORTER SUBSYSTEM: CARRIER CELLS, DRIVEN AND NON-DRIVEN	157.	**Check carrier cell slide plates.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** Jog machine and check for missing or damaged carrier cell slider plates.	.03	7	20	190	

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	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature: Automated Package Processing Systems	Equipment Model										Bulletin Filename: MM10086AD					Occurrence

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.
		Multiply by carrier cells.					
SORTER SUBSYSTEM: CARRIER CELLS, DRIVEN AND NON-DRIVEN	158.	**Check carrier cell condition.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** Check the condition of 10% of the carrier cells (driven and non-driven) as follows: 1. Jog machine to position carrier cell in Maintenance Test Station area. 2. Check belts for wear, damage, sagging, separation along edges, or tracking problems. 3. Check drive belt for missing teeth. 4. Check drives roller and idler roller for loose mounting brackets. 5. Ensure cell flags are secure and properly positioned. 6. Check carrier cell couplers. 7. Check MAB Unit brushes for wear and damage. 8. For driven carrier cells, check monorail drive rollers. 9. Log the carrier cell numbers checked during this check and ensure all cells are checked on a rotational basis. Multiply by 10% carrier cell.	3	7	140	1330	
POWER AND CONTROL: SYSTEM MANAGEMENT	159.	**Verify database maintenance performed.** **WARNING** **Be cautious when working around or on equipment when power has been applied.**	2	10			1

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	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model								Bulletin Filename MM10086AD				Occurrence			

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. At the SMS, verify that the database maintenance task was performed successfully at least once in the past 7 days. 2. Initiate the database maintenance task manually, if the task was not performed as scheduled, and adjust the database maintenance task schedule to ensure that the task is not scheduled during the operational window or during the powered-off portion of the maintenance window.					
POWER AND CONTROL: SYSTEM MANAGEMENT	160.	**Verify successful NDSS download and distribution.** **WARNING** **Be cautious when working around or on equipment when power has been applied.** 1. At the SMS, verify that the NDSS download task was performed as scheduled and that the directory files are current. 2. At the Image Server, verify that directory distribution to the image capture computers occurred as scheduled. 3. Initiate download and/or distribution manually if either were not performed as scheduled. 4. The NDSS download to the SMS can occur at any time. The directory distribution must occur during the powered-on portion of the maintenance window	5	10			1
POWER AND CONTROL: SYSTEM MANAGEMENT	161.	**Backup data** **WARNING** **Be cautious when working around or on equipment when power has been applied.** 1. At the SMS, backup the 'Oracle Database', the 'View Past Faults', and 'Sortplan' files to formatted CDs.	30	10			1

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
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	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature: Automated Package Processing Systems	Equipment Model										Bulletin Filename: MM10086AD					Occurrence

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. Verify that the configuration files have been backed up to CD and are available in the software storage cabinet. 3. Create a backup if required.					
POWER AND CONTROL: SORTER MAIN CONTROL CABINET (SMCC)	162.	**Fire alarm relay test.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** 1. Monitor the relay performance during normal building fire protection system test. 2. Verify that an orderly machine shut down occurs during fire protection system test.	1	9			26
POWER AND CONTROL: POWER CABINETS SIDE 1	163.	**Monitor component temperature on side one.** **WARNING** **Be cautious when working around or on equipment when power has been applied.** 1. Using infra-red temperature measurement instrument, check the temperature of components for indications of hot spots inside the following cabinets: a. Power Factor Control Cabinet (PFC) b. Operator Control Cabinets (OCC) c. Unloader Distributed Control Cabinets (UDCC) d. Feed Singulation Distribution Main Control Cabinets (FSD-MCC) e. Feed Singulation Distribution Distributed Control Cabinets (FSD-DCC)	45	7	1800	17100	

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	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model								Bulletin Filename MM10086AD				Occurrence			

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. Automatic Distributed Control Cabinets (ADCC) g. Discrete Distributed Source of Supply Cabinets (DDSS) h. Induction Main Control Cabinets (IMCC) i. Semi-Automatic Distributed Control Cabinets (SADCC) j. Sorter Main Control Cabinet (SMCC) k. Ground Central Processing Unit Cabinets (GCPU) l. 70 VDC Power Supply Cabinets 2. Record measurements in SMS log book. Compare current results with results from previous checks. 3. Initiate action to investigate and correct components exhibiting excessive operating temperature.					
POWER AND CONTROL: POWER CABINETS SIDE 2	164.	**Monitor component temperature on side two.** **WARNING** **Be cautious when working around or on equipment when power has been applied.** 1. Using infra-red temperature measurement instrument, check the temperature of components for indications of hot spots inside the following cabinets: a. Power Factor Control Cabinet (PFC) b. Operator Control Cabinets (OCC) c. Unloader Distributed Control Cabinets (UDCC) d. Feed Singulation Distribution Main Control Cabinets (FSD-MCC) e. Feed Singulation Distribution Distributed Control Cabinets (FSD-DCC)	45	7	1800	17100	

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model										Bulletin Filename MM10086AD					Occurrence

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. Automatic Distributed Control Cabinets (ADCC) g. Discrete Distributed Source of Supply Cabinets (DDSS) h. Induction Main Control Cabinets (IMCC) i. Semi-Automatic Distributed Control Cabinets (SADCC) j. Sorter Main Control Cabinet (SMCC) k. Ground Central Processing Unit Cabinets (GCPU) l. 70 VDC Power Supply Cabinets 2. Record measurements in SMS log book. Compare current results with results from previous checks. 3. Initiate action to investigate and correct components exhibiting excessive operating temperature.					
APPS: SYSTEM SIDE 1	165.	**Pre-operational check of side one.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** Before returning machine to operations, start machine and perform operational check as follows: 1. Check warning horns and lights during machine start-up for proper function. 2. Observe SMS system status screen and review system log for problems. 3. With system running, walk around system observing that all belts are running, and listening for unusual noises. Pay particular attention to conveyor bull noses in the AARS	9	9	0	0	

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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.
		and induction areas. 4. Verify that computer cabinet cooling fans are operational by observing exhaust streamers. 5. Perform photoeye flicker diagnostic to check for false triggering due to loose photoeye mounting hardware, conveyor belting, etc. 6. Print a test label from each label printer and verify label print quality. 7. Visually check to ensure canvas is closed and secure.					
APPS: SYSTEM SIDE 2	166.	**Pre-operational check of side two.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** Before returning machine to operations, start machine and perform operational check as follows: 1. Check warning horns and lights during machine start-up for proper function. 2. Observe SMS system status screen and review system log for problems. 3. With system running, walk around system observing that all belts are running, and listening for unusual noises. Pay particular attention to conveyor bull noses in the AARS and induction areas. 4. Verify that computer cabinet cooling fans are operational by observing exhaust streamers. 5. Perform photoeye flicker diagnostic to check for false triggering due to loose photoeye mounting hardware, conveyor belting, etc. 6. Print a test label from each label printer and verify label print quality.	9	9	0	0	

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Equipment Nomenclature: Automated Package Processing Systems	Equipment Model:								Bulletin Filename: MM10086AD				Occurrence:			

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. Visually check to ensure canvas is closed and secure.					
FINAL CLEANUP	167.	**Clean up.** **WARNING** **Be cautious when working around or on equipment when power has been applied.** 1. Ensure all tools, lubricants, rags, etc., are removed from the work area. 2. Ensure all equipment covers are in place. 3. Report all deficiencies to your supervisor and generate a work order, per local SOP, to document and initiate corrective maintenance activity. 4. Annotate deficiencies found and repairs performed in the SMS electronic logbook.	1	ALL			

ATTACHMENT 3

MASTER CHECKLIST

09-APPS-AA-001-M

Operational Maintenance

Time Total: See Attachment 1.

MAINTENANCE MANAGEMENT ORDER

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	9	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature: Automated Package Processing Systems	Equipment Model										Bulletin Filename: MM10086AD					Occurrence

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 shutdown and lockout this machine. Open equipment and inspect dust conditions. Check for suspicious dust or unusual debris. If any unusual substance is found notify supervisor prior to proceeding with any further action on the equipment.** **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.**	1	All			
APPS: SYSTEM	2.	**Operational maintenance. Perform the following operational maintenance checks at least once per operational (Non-PM) tour. Report unsafe conditions to supervisor immediately. Record all findings in the SMS logbook.** **WARNING** **Be cautious when working around or on equipment when power has been applied. Some of the following tasks require that the machine be running. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.** 1. Check warning horns and lights during machine start-up for proper function. 2. Check for problems with structural integrity of supervisor platform and stairs to protect from slips, trips, and falls.	.2	9	10	95	

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	9	A	P	P	S					A	A	0	0	1	M
Equipment Nomenclature Automated Package Processing Systems	Equipment Model								Bulletin Filename MM10086AD				Occurrence			

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. Observe SMS system status screen and review system log for problems. Evaluate accept, reject, and throughput rates to identify degraded performance. 4. Visually check Unloaders for damaged or missing container stops. 5. While system is running, walk around system observing for unusual noises and odors. Pay particular attention to conveyors in the AARS and in both semi-auto and auto induction areas that have conveyor bull noses. Observe for accumulation of debris that is causing damage or performance degradation. 6. Observe Incline conveyor(s) for proper operation. Belt should not slip backward under normal load. 7. Observe for proper dosing, unstacking, traffic control, alignment, and metering necessary to achieve mailpiece singulation. 8. Check cabinet fans are functioning by observing exhaust streamers. 9. Visually check to ensure FSD DCS canvas is closed and secure. 10. Check for problems with structural integrity of Semi-Auto Induction Station platform(s) and stairs to protect from slips, trips, and falls. 11. Check Semi-Auto Induction Station Load and Rework Roller tables for proper operation. 12. Visually check to ensure the Semi-Auto Induction Station canvas is closed and secure. 13. Observe motion of shoe sorter shoes for erratic motion across slats. 14. Observe for excessive debris and mailpieces in shoe sorter debris (overflow) bin. 15. Observe for double fed mail at induction stations. Induction stations should reverse to meter mailpieces.					

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		16. Observe carrier cells for damaged belts and slider plates, and observe for proper belt tracking. Listen for unusual noises that might indicate carrier cells are striking the frame or guards; locate and evaluate the source of the noise and stop the system if carrier cells are striking any fixed machine parts. 17. Observe carrier cell stay-bolts and ball-joints for signs of damage and fatigue. 18. Print a test label from each label printer and observe diagonal test pattern for acceptable print quality. 19. Call Remote Encoding Center and inquire about image quality and general operational status. Multiply by E-Stop.					