



maintenance management order

SUBJECT: PM Guidelines for Container Unloaders

DATE: July 13, 1998

NO: MMO-038-98

TO: Bulk Mail Centers

FILE CODE: Y

dewa:M94116AE

Online Change Record		
Change #	Date	Description of Change
1	4/25/2022	Attachment 2, corrected skill level 4, no longer in use, to level 7.

This Maintenance Management Order (MMO) supersedes Maintenance Checklist B045BMC.

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

WARNING

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

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

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

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

Rex M. Gallaher
Manager
Maintenance Technical Support Center
Maintenance Policies and Programs

- Attachments:
1. Summary of Revised Workload Estimate
 2. Container Unloaders Master Checklist

ATTACHMENT 1**-SUMMARY-****REVISED WORKLOAD ESTIMATE****FOR****CONTAINER UNLOADER (SACU/PACU)**

Routine Servicing (hrs/yr)	Repair* (hrs/yr)	Total Servicing & Repair Time (hrs/yr)	Nonproductive Time ** (hrs/yr)	Total Servicing Per Machine (hrs/yr)
159.8	48.0	207.8	20.8	228.6

* Repair estimates based on 30% of servicing.

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

TIME TOTALS

<u>Weekly Time Total:</u>	2.3 Hrs. ***
<u>Monthly Time Total:</u>	1.8 Hrs. ***
<u>Quarterly Time Total:</u>	3.1 Hrs. ***
<u>Semi-Annual Time Total:</u>	1.3 Hrs. ***
<u>Annual Time Total:</u>	1.8 Hrs. ***

NOTE

The time shown does not allow for multiple assemblies on any equipment. Should multiple assemblies exist, the time must be modified at the local level to account for those occurrences. Other unique site conditions that requires additional time are to be addressed at the local level.

*** These times are provided for data entry for the MARS System.

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ATTACHMENT 2**CONTAINER UNLOADERS MASTER CHECKLIST**

03-CONTU-AA-001-M

The number (03-CONTU-AA-001-M) shown above is a generic identification for Container Unloaders (SACU/PACU) and must be adapted to meet the local equipment acronym numbering system.

The "Part or Component" column for each step on the Master Checklist provides a "Frequency Code" designation followed by a letter or series of letters. These letters correspond to the frequency codes as published in MS-63 and specify the frequency for which that instruction (step) must be performed. These frequency codes are in compliance with NMICS superseding route structure. The possible frequencies and their codes are given in the table below:

Table 2-1. MS-63 (NMICS) Frequency-Codes

<u>CODE</u>	<u>FREQUENCY</u>	<u>DESCRIPTION</u>
A	ANNUAL	Once every 13 APs.
B	BI-WEEKLY	Once every 2 weeks
C	BI-MONTHLY	Once every 2 APs.
D	DAILY	Once a day; 7 days a week.
E	DAILY	Once a day; 6 days a week.
F	DAILY	Once a day; 5 days a week.
G	DAILY	Once a day; 4 days a week.
H	DAILY	Once a day; 3 days a week.
J	SEMI-WEEKLY	2 days a week.
K	BI-ANNUAL	Once every 2 years.
L	TRI-ANNUAL	Once every 3 years.
M	MONTHLY	Once every AP.
N	QUAD-ANNUAL	Once every 4 years.
P	QUINT-ANNUAL	Once every 5 years.
Q	QUARTERLY	4 times every 13 APs.
S	SEMI-ANNUAL	Twice every 13 AP.
T	TOURLY	3 times a day; 7 days a week.
U	TOURLY	Twice a day; 7 days a week.
V	TOURLY	3 times a day; 6 days a week.
W	WEEKLY	Once a week.
X	TOURLY	Twice a day; 6 days a week.
Y	TOURLY	3 times a day; 5 days a week.
Z	TOURLY	Twice a day; 5 days a week.

U.S. Postal Service Maintenance Checklist	IDENTIFICATION											
	Work Code		Equipment Acronym				Class Code		Number		Type	
	0	3	C	O	N	T	U	A	A	0	0	1
Equipment Nomenclature CONTAINER UNLOADERS (SACU/PACU)		Equipment Model				Bulletin Filename M94116AE		Frequency ALL				

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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SAFETY STATEMENT Frequency Code: -W-M-Q-S-A	1.	COMPLY WITH ALL SAFETY PRECAUTIONS. - Disconnect power and activate lockouts as appropriate while working on this equipment. Where air pressure is required for cleaning, use a low air pressure (30 psi or less) air source. Eye protection (goggles or face shield) must be used when utilizing compressed air for cleaning. Check to ensure all employees are clear of the machine. Report safety deficiencies to your supervisor immediately upon detection.	3 min	All
SYSTEM Frequency Code: -W-M-Q-S-A	2.	CHECK FOR MAIL. - Look for loose mail while performing all activities.	2.5 min	7
ALL CRADLES Frequency Code: -W-----	3.	CHECK CRADLES - Check all cradles for erratic operation.	15 min	7
DOOR CLOSER ASSY Frequency Code: -W-----	4.	CHECK OPERATION - Check for smooth operation, stiffness, or binding.	3 min	7
Frequency Code: ----- Q-S-A	5.	CHECK TIME SETTING - Check for proper time setting on door closer.	3 min	7

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	0	3	C	O	N	T	U	A	A	0	0	1
Equipment Nomenclature CONTAINER UNLOADERS (SACU/PACU)		Equipment Model				Bulletin Filename M94116AE		Frequency ALL				

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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DOOR OPENER ASSY (Cont.) 6. **CHECK ACTUATOR SPEEDS** - Check hydraulic actuator speeds. 3 min 7

Frequency Code:
-----S-A

Frequency Code: 7. **CHECK SHAKER MOTOR** - Check shaker motor for excessive vibration. 2 min 7
----M-Q-S-A

Frequency Code: 8. **CHECK PUMP AND MOTOR** - Check pump and motor for excessive, friction, and vibration. 15 min 7
---M-Q-S-A

DOOR OPENER ASSY 9. **CHECK VACUUM CUP** - Check vacuum cup overtravel adjustment. 5 min 7

Frequency Code:
-----Q-S-A

Frequency Code: 10. **CHECK VACUUM CUP POSITION** - Check position of vacuum cup relative to container door stiffeners. 1 min 7
-W-----

Frequency Code: 11. **CHECK DOOR WHEEL POSITION** - Check door restraint wheel position. 3 min 7
-----Q-S-A

ELECTRICAL CONTROLS 12. **CHECK OPERATION OF LIMIT SWITCHES** - Check for proper operation of all limit switches. 5 min 7

Frequency Code:
-----S-A

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	0	3	C	O	N	T	U	A	A	001	M
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SYSTEM Frequency Code: -W-M-Q-S-A	13.	POWER DOWN AND LOCKOUT POWER. - Power down the equipment and lockout its electrical power as prescribed by the procedures contained in, or locally developed in accordance with, the current Maintenance Management Order (MMO) providing lockout/restore procedures.	2 min	7
DOOR OPENER ASSY Frequency Code: -----Q-S-A	14.	CHECK AIR CYLINDERS - Check air cylinders for signs of bearing wear, damaged seals, bent rods, or binding pistons.	5 min	7
Frequency Code: -----S-A	15.	REMOVE AND LUBRICATE NEEDLE VALVE - Remove needle valve elbow fitting at top and center position of shock damping cylinder, add three drops of GL-7-C, and reassemble.	15 min	7
Frequency Code: -W-----	16.	CHECK ACTUATOR BOLTS - Check actuator mounting bolts and dowel pins for tightness.	6 min	7
Frequency Code: -W-----	17.	CHECK SHAFT - Check shaft attachment for secure splines and tight set screws.	5 min	7
Frequency Code: -----Q-S-A	18.	CHECK STOP BLOCKS - Check stop blocks as follows: 1. Check stop blocks for excessive wear and that striking pads are securely bonded. 2. Replace stop block if grooved more than 1/16". 3. Replace striking pad if out of position more than 1/8".	5 min	7

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	0	3	C	O	N	T	U	A	A	0	0	1
Equipment Nomenclature CONTAINER UNLOADERS (SACU/PACU)		Equipment Model				Bulletin Filename M94116AE		Frequency ALL				

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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DOOR OPENER ASSY (Cont.) 19. **CHECK SHOCK ABSORBER** - Check shock absorber for wear, damage, and leaking fluid. 3 min 7

Frequency Code:
-----Q-S-A

Frequency Code: 20. **CHECK FASTENERS** - Check all fasteners, linkage, bearing units, and air valve mounting for tightness. 10 min 7

-W-----

DOOR UNLATCH MECHANISM 21. **CHECK CLEARANCE** - Check clearance to container wheel track. Clearance should be 0.3" (19/64). 1 min 7

Frequency Code:
-W-----

Frequency Code: 22. **CHECK UNLATCH CAM** - Check door unlatch cam for excessive wear. 1 min 7

-W-----

Frequency Code: 23. **CHECK ACTUATOR SHAFT** - Check actuator shaft keyway and key for tightness and wear. 2 min 7

-W-----

Frequency Code: 24. **CHECK SPLIT TAPER BUSHING** - Check split taper bushing for tightness. 2 min 7

---M-Q-S-A

ALL CRADLES 25. **CHECK AND CLEAN CAM TRACK** - Check and clean cam track as follows: 36 min/assy 7

Frequency Code: 1. Wipe cam track and cam follower with clean cloth.

----- Q-S-A

2. Then apply thin coat of GR-2 on surface.

3. Check cam track and roller for pitting, galling or similar surface damage.

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	0	3	C	O	N	T	U	A	A	0	0	1
Equipment Nomenclature CONTAINER UNLOADERS (SACU/PACU)		Equipment Model				Bulletin Filename M94116AE		Frequency ALL				

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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ALL CRADLES (Cont.)	26.	GREASE CAM FOLLOWER - Grease cam follower bearings with GR-2.	6 min/ assy	7
Frequency Code: -----S-A				
Frequency Code: ----- Q-S-A	27.	CHECK STOP BLOCKS - Check stop blocks and fastener for wear and tightness.	6 min/ assy	
Frequency Code: -W-----	28.	CHECK LINKAGE - Check linkage and rod ends for alignment, tightness, and excessive wear.	10 min/ assy	7
Frequency Code: ---M-Q-S-A	29.	GREASE ROTARY ACTUATOR - Grease rotary actuator connecting sperical rod ends with GR-2.	10 min/ assy	7
Frequency Code: ---M-Q-S-A	30.	CHECK SIDE GUIDE WHEELS - Check side guide wheels for free rotation, damage, and proper alignment.	5 min/ assy	7
Frequency Code: ----Q-S-A	31.	CHECK BOLTS - Check bolts for tightness on wheel guide channels.	15 min/ assy	7
Frequency Code: -----S-A	32.	CHECK CRADLE FLOOR PAD - Check that cradle floor pad mounts are secure.	10 min/ assy	7
Frequency Code: ---M-Q-S-A	33.	CHECK WHEEL TRACKS - Check container wheel tracks for proper alignment.	10 min/ assy	7

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CRADLE 2
ASSY (Cont.) 41. **CHECK TOP RESTRAINT WHEELS** - Check top restraint wheels as follows: 10 min 7

Frequency Code:
----- Q-S-A

1. Check top restraint wheels for wear and proper alignment.
2. Check springs and mounting bolts for wear and tightness.

UNLOAD SECTION 42. **CHECK BOLTS** - Check bolts for tightness on wheel guide channels. 10 min 7

Frequency Code:
----- Q-S-A

Frequency Code:
----M-Q-S-A 43. **CHECK SLIDE** - Check slide for dents, scratches, and broken welds. 2 min 7

SHAKER ASSY 44. **CHECK ROD ENDS** - Check rod ends, crankshaft, and connecting rod bearings for excessive wear, galling, or binding. 10 min 7

Frequency Code:
-W-----

Frequency Code:
----M-Q-S-A 45. **CHECK BOLTS** - Check all bolts, set screws, and jam nuts for tightness. 6 min 7

Frequency Code:
----M-Q-S-A 46. **CLEAN SHAKER MOTOR** - Clean motor cooling inlet of dust and dist if blocked. 4 min 7

Frequency Code:
---M-Q-S-A 47. **CHECK SHAKER GEARBOX** - Check shaker gearbox for leaks and, if necessary, fill with GL-7-C. 3 min 7

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	0	3	C	O	N	T	U	A	A	0	0	1
Equipment Nomenclature CONTAINER UNLOADERS (SACU/PACU)		Equipment Model				Bulletin Filename M94116AE		Frequency ALL				

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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SHAKER ASSY (Cont.) 48. **CHECK OIL LEVEL** - Check oil level of gearbox and fill if necessary with GL-7-C. 10 min 7

Frequency Code:
-----S-A

Frequency Code: 49. **DRAIN REFILL GEARBOX** - Drain gearbox and fill to proper level with GL-7-C. 30 min 7

-----A

CRADLE 3 50. **CHECK SLIDE** - Check slide as follows: 8 min. 7

- Frequency Code:
-----Q-S-A
1. Check slide fillet for proper adjustment and surface damage.
 2. Check bolts for tightness.

DOOR CLOSER ASSY 51. **CHECK PNEUMATIC WHEEL** - Check pneumatic wheel for damage and alignment. 3 min 7

Frequency Code:
-W-----

Frequency Code: 52. **CHECK WHEEL INFLATION** - Check pneumatic wheel for inflation of 5-15 psi pressure. 3 min 7

----- Q-S-A

Frequency Code: 53. **CHECK FASTENERS** - Check tightness of all fasteners. 10 min 7

-----Q-S-A

Frequency Code: 54. **CHECK CYLINDER** - Check cylinder as follows: 15 min 7

- Frequency Code:
-W-----
1. Check cylinder for damage, bent rod, and leaking seals.
 2. Check all mounting brackets, bearing mounts, rod ends, and jam nuts for wear and tightness.

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	0	3	C	O	N	T	U	A	A	0	0	1
Equipment Nomenclature CONTAINER UNLOADERS (SACU/PACU)		Equipment Model				Bulletin Filename M94116AE		Frequency ALL				

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DOOR CLOSER ASSY (Cont.) 55. **CHECK LIMIT SWITCH** - Check door closer overtravel and limit switch adjustments. 3 min 7

Frequency
Code:
---- Q-S-A

PNEUMATIC SYSTEM 56. **CHECK VACUUM CUP** - Check vacuum cup for damage. 2 min 7

Frequency
Code:
-W-----

WARNING

Eye protection (goggles or face shield) must be worn when working with compressed air.

Frequency Code: 57. **CHECK AIR PRESSURE** - Check air pressure setting on gauge at vacuum cup cylinder. Adjust if necessary. 1 min 7

-W-----

Maximum pressure of 40 psig.

Frequency Code: 58. **CHECK PRIMARY AIR PRESSURE** - Check primary air supply pressure. Adjust if necessary. 1 min 7

-W-----

Maximum pressure of 55 psig

Frequency Code: 59. **CLEAN FILTER REGULATOR** - Clean filter regulator unit. Drain water accumulation. 3 min 7

-W-----

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	0	3	C	O	N	T	U	A	A	0	0	1
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Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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PNEUMATIC SYSTEM (Cont.) 60. **CHECK PNEUMATIC LINES** - Check all pneumatic lines for scuffs and damage. 5 min 7

Frequency Code:
----M-Q-S-A

Frequency Code: 61. **CHECK PNEUMATIC FITTINGS** - Check all pneumatic fittings and clamps for tightness and leaks. 5 min 7

----M-Q-S-A

Frequency Code: 62. **CLEAN AIR VALVE EXHAUST MUFFLER** - Clean air valve exhaust muffler. Replace muffler as necessary. 5 min 7

-----Q-S-A

WARNING

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

WARNING

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

Frequency Code: 63. **SERVICE HYDRAULIC OIL SYSTEM** - Service hydraulic oil system as follows: 7 min 7

-W-----

1. Check oil level. Fill if necessary with HY-2.
2. Check oil cooler fan and motor for proper operation.
3. Check that oil cooler fan screen is clear and clean.
4. Replace filter if necessary.
5. Check hydraulic pressure: 1500 psig ± 25 psi.

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HYDRAULIC SYSTEM (Cont.) 64. **CHECK RESERVOIR** - Check oil in reservoir for signs of possible frothing or emulsification. If significant emulsification is found drain oil and refill with HY-2 20 min 7

Frequency Code:
-----A

Frequency Code: 65. **CLEAN AND CHECK PUMP AND MOTOR** - Clean and check pump and motor as follows: 15 min 7

---M-Q-S-A

1. Clean ventilation openings for dirt.
2. Check filter visual indicator dial.
3. Replace filter if necessary.

Frequency Code: 66. **CHECK HOSES** - Check hoses as follows: 30 min 7

-----Q-S-A

1. Check hoses for scuffs and damage.
2. Insure clamps are secure.
3. Check hose fittings for leaks and tightness.

ELECTRICAL CONTROLS 67. **CHECK PHOTO SENSORS** - Check photo sensors for proper operation and alignment. 5 min 7

Frequency Code:
-W-----

Frequency Code: 68. **CHECK LIMIT SWITCHES** - Check all limit switches for proper adjustment and tightness. Check all limit switch arms for damage. 10 min 7

-----Q-S-A

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ELECTRICAL CONTROLS (Cont.) Frequency Code: -----S-A	69. LUBRICATE LIMIT SWITCHES - Lubricate all limit switches as follows: 1. Lubricate rollers on limit switches arms with GL-4. 2. Using extreme caution, check safety circuit to prevent container crashing because tow pin jumped out of track.	15 min 7
Frequency Code: -----A	70. CHECK TERMINALS - Check terminals in junction box and in control panel for tightness.	45 min 5
CLEAN-UP Frequency Code: -W-M-Q-S-A	71. CLEAN-UP. - Ensure all tools, lubricants, rags, etc., are removed from the work area. Report all deficiencies to your supervisor.	3 min All

WARNING

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

SYSTEM Frequency Code: -W-M-Q-S-A	72. RESTORE EQUIPMENT TO SERVICE. - Restore equipment to service as prescribed by the procedures contained in, or locally developed in accordance with, the current Maintenance Management Order (MMO) providing lockout/restore procedures.	3 min All
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START-UP Frequency Code: -W-M-Q-S-A	73.	START-UP. - Perform normal start-up procedures as follows: <ol style="list-style-type: none"> 1. Start or preset equipment. 2. Check for proper operation. 3. Report all deficiencies to your supervisor in order to initiate any necessary work orders to make necessary repairs, or to remove excessive debris. 	5 min	All
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