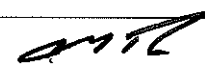



PM PACKET SIGN-OFF SHEET

Work Order #: <b>6107</b>		Equipment ID: <b>1645</b>	
PM Service (ex. 45-Day, 92-Day, 1YR etc.): <b>92 DAY</b>			
Date Work Order Opened: <b>11-14-22</b>		Date Work Order Finished: <b>11-14-22</b>	
Confirm all work carried out in accordance with the PM requirements:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Work Deferred	
If work Deferred, confirm that a Deferred work order has been raised:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Enter Deferred Work Order number below <div style="border: 1px solid black; height: 20px; width: 150px;"></div>	
MEC557 Report has been run and relevant Work Orders and Service Requests have been reviewed and addressed.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Include a copy of the final MEC557 report for the equipment with the PM packet.	
All required forms are attached and completed:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
<u>Locomotive Tests</u> Oil Sample <input type="checkbox"/> Air Filters <input type="checkbox"/> Loco Undercarriage Inspection <input type="checkbox"/>		<u>Coach Tests</u> Disc Report <input type="checkbox"/> A/C Filters <input checked="" type="checkbox"/> Toilet <input type="checkbox"/>	
Equipment Release Date: <b>11-14-22</b>			
Manager/Supervisor Reviewing Work Order: (Please print clearly and sign)			
Name: <b>M. Allen</b>		Signature: 	
Supt reviewing Work Order: (Please print clearly and sign)			
Name: <b>Thomas Cravell</b>		Signature: 	
Comments:			

**Instructions: Please complete this form ensuring all attached paperwork is complete. Once completed, attach this form with the required PM packet documents.**

## Service Requests

SR ID	Created Date	Days Old	SR Created by	Status	Symptom	Task	Work Order ID	Service Request Comments	Priority
1645-4635459	11/02/2022	13	MARK.GOLIVEIA	FINISHED	ACSES20		MBETCH-2022-6499	ACSES NON-CONFORMING SPEED	
1645-4173813	10/28/2021	383	DONALD.OCONNELL	PENDING	HVAC20	B09-110		HVAC PRE/SEASONAL INSPECTION	
1645-4581851	09/23/2022	53	GORDON.MARSH	PENDING		B02-100		MUP ID: IN2022-029 SLIPPERY RAIL SEASON WHEEL SLIDE SYSTEM AND DYNAMIC BRAKE CHECKS FOR CONTROL CARS	
1645-4332995	03/09/2022	251	KRISTINA.ROCHELEAU	PENDING		B15-400-0040		SU2022-010 PTC RADIO SOFTWARE UPGRADE. NO PROCEDURES HITACHI IS DOING THE UPGRADE.	
1645-4605324	10/07/2022	39	DANIEL.CAPRA	PENDING	HVAC20	B03-110	MBETCH-2022-6499	HVAC PRE/SEASONAL INSPECTION	M4
1645-4582227	09/23/2022	53	GORDON.MARSH	FINISHED				MUP IN2022-032 BOMBARDIER WHEEL SLIDE TESTING	
1645-4582305	09/23/2022	53	GORDON.MARSH	PENDING		B03-220		COMPLETE ATTACHED WORK INSTRUCTIONS	
								MUP IN2022-032 LOCO/CTC SANDING SYSTEM CHECK	
								COMPLETE ATTACHED WORK INSTRUCTION: KCS-ME-WI-210372 LO	

## PM Services/Inspections Due

Task ID	Description	Last Scheduled	Last Completed	Next Due
CTC45-PM	CTC 45 DAY INSPECTION MID CLASS PM	04/15/2019	06/02/2019	12/29/2022
HVAC-SPONGE	HVAC AIR SPONGE REPLACEMENT	09/02/2022	10/20/2022	11/19/2022
COACH-CLIN-EX	COACH EXTERIOR CLEANING - CARRIAGE WASH AS WEATHER PERMITS			
AC FILTER-30	REPLACE RETURN AIR AND FRESH FILTERS -30 DAY	11/06/2022	11/14/2022	12/14/2022
COACH-CLIN-A	COACH CLEANING INSPECTION - CLASS A - MONTHLY CLEAN	09/27/2022	09/09/2022	
COACH-CLIN-C	COACH INTERIOR CLEANING - CLASS C - DAILY CLEAN			
SAND CTC	SANDER INSPECTED AND SANDBOX REFILLED	07/12/2020	07/20/2020	

Due Within 5 days

## Work Orders

Work Order ID	Created date	Days old	WO Created by	Work Order Title	Job Type	PM Service	Work Order Status	Delay Code
MBETCH-2022-6107	11/14/2022	1	NICOLE.SIMS	90 DAY PM	PM	CTC90-PM	WORK FINISHED	None
MRDYD-2020-4906	10/25/2020	751	EVER.DIAZ		REPAIR		PENDING	None
MBETCH-2022-6499	11/14/2022	1	ELAINE.DEROSA	MR1 92 DAY	REPAIR		WORK FINISHED	None

MUPs - Multi-Unit Projects					
Project Code	Description	Work Order ID	Service Request ID	WO/SR Status	Project Due Date
IN2022-029	SLIPPERY RAIL SEASON WHEEL SLIDE SYSTEM AND DYNAMIC BRAKE CHECKS FOR CONTROL CARS	MBETCH-2022-6459	1645-4581851	PENDING	
IN2022-032	BOMBARDIER WHEEL SLIDE TESTING		1645-4582227	FINISHED	
IN2022-033	LOCO/CTC SANDING SYSTEM CHECK		1645-4582305	PENDING	
SU2022-010	PTC RADIO SOFTWARE UPGRADE		1645-4332995	PENDING	
FBDINST20	AUTOMATED PEOPLE COUNTER (APC/ FBD)INSTALL PROJECT - 4TH GENERATION INSTALL	MRQVYD-2020-4906		PENDING	

Due Within 5 days



Keolis  
Commuter Services

MAP 816

LOCOMOTIVE INSPECTION AND REPAIR RECORD

In accordance with the Locomotive Inspection Act, 36 State, 913, as amended and the regulations issued pursuant to that Act, the parts and appurtenances of the locomotive unit have been inspected and all defects disclosed by the inspection have been properly repaired.

Reporting year 2022

Check if new loco. ☐

If loco. renumbered  
give previous no.

--	--	--	--	--	--

1. OPERATED BY <b>KRSM</b>			RR CODE <b>K R S M</b>			2. OWNED BY (RAILROAD) <b>MBTA</b>			RR CODE <b>0 5 8 3</b>		
3. MODEL NO. <b>CTC</b>	4. LOCO. NO. <b>1645</b>	5. YR. BUILT <b>1990</b>	6. PROPELLED BY <b>MUC</b>		7. HORSEPOWER <b>NA</b>		8. TYPE OF SERVICE: PASSENGER <input checked="" type="checkbox"/> ROAD <input type="checkbox"/> YARD <input type="checkbox"/> OTHER <input type="checkbox"/>				
9. STEAM GEN. <b>NOT EQUIPPED</b>		10. MAXIMUM PISTON TRAVEL <b>1"</b>			TYPE OF AIR BRAKE <b>26-C</b>		11. OUT OF USE CREDIT				
12. LAST PERIODIC INSPECTION DATE <b>11/17/2021</b>						PLACE <b>SOMERVILLE, MA.</b>					

PERIODIC INSPECTIONS

13. DATE MO/DAY/YR	14. PLACE	15.* ITEMS	16. PERSON CONDUCTING	15.* ITEMS	16. PERSON CONDUCTING	17. CERTIFIED BY
2-16-2022	Somerville MA	1-4, 7	<i>[Signature]</i>	3, 5, 7	<i>[Signature]</i>	<i>Paul Bauck</i>
5-16-2022	Somerville MA	1-4, 7	<i>[Signature]</i>	3, 5, 7	<i>[Signature]</i>	<i>Paul Bauck</i>
8-11-2022	Somerville MA	1-4, 7	<i>[Signature]</i>	3, 5, 7	<i>[Signature]</i>	<i>[Signature]</i>
		1-4, 7		3, 5, 7		
		1-4, 7		3, 5, 7		
		1-4, 7		3, 5, 7		
		1-4, 7		3, 5, 7		
		1-4, 7		3, 5, 7		
		1-4, 7		3, 5, 7		
		1-4, 7		3, 5, 7		
		1-4, 7		3, 5, 7		
		1-4, 7		3, 5, 7		

15.\* ITEM CODE: ☐ 1 BRAKES ☐ 2 RUNNING GEAR ☐ 3 CAB EQUIP. ☐ 4 MECH. EQUIP. ☐ 5 ELECT. EQUIP. ☐ 6 STEAM GEN. ☐ 7 SAFETY APPL.

TESTS		18. H & H TEST PRESSURE " DRILLED "		19. WAIVER PART - 229		20. WAIVER - OTHER	
TYPE	INTERVAL NOT MORE THAN	21. PERSON CONDUCTING	22. TEST DATE AND PLACE	23. CERTIFIED BY	24. PREVIOUS TEST DATE AND PLACE		
METER	368 calendar days				N / A		
HAMMER AND HYDRO	736 calendar days				" DRILLED "		
AIR BRAKE 229.27	368 calendar days	<i>[Signature]</i>	2-16-2022 Somerville MA.	<i>Paul Bauck</i>	2/19/2021 SOMERVILLE, MA.		
AIR BRAKE 229.29	NUMBER OF CALENDAR DAYS <u>736</u>				2/19/2021 SOMERVILLE, MA.		

Certification of true copy.

I certify that this is a true copy of the inspection and repair record of locomotive no.

1645

*Kelly Yacht*  
(Officer-in-charge)

*11/14/22*  
DATE

ATTENTION: A false entry on this form is punishable by fine or imprisonment (U.S. Code, Title 18, Sec. 1001).



Keolis  
Commuter Services

MAP 816

LOCOMOTIVE INSPECTION AND REPAIR RECORD

In accordance with the Locomotive Inspection Act, 36 Stat. 913, as amended and the regulations issued pursuant to that Act, the parts and appurtenances of the locomotive unit have been inspected and all defects disclosed by the inspection have been properly repaired.

Reporting year 2022

Check if new loco. ☐

If loco. renumbered  
give previous no.                  

1. OPERATED BY <b>KRSM</b>			RR CODE <b>  K   R   S   M  </b>			2. OWNED BY (RAILROAD) <b>MBTA</b>			RR CODE <b>  0   5   8   3  </b>		
3. MODEL NO. <b>CTC</b>	4. LOCO. NO. <b>1645</b>	5. YR. BUILT <b>1990</b>	6. PROPELLED BY <b>NMUC</b>		7. HORSEPOWER <b>NA</b>		8. TYPE OF SERVICE: PASSENGER <input checked="" type="checkbox"/> ROAD <input type="checkbox"/> YARD <input type="checkbox"/> OTHER <input type="checkbox"/>				
9. STEAM GEN. <b>NOT EQUIPPED</b>		10. MAXIMUM PISTON TRAVEL <b>1"</b>		TYPE OF AIR BRAKE <b>26-C</b>			11. OUT OF USE CREDIT				
12. LAST PERIODIC INSPECTION DATE <b>11/17/2021</b>						PLACE <b>SOMERVILLE, MA.</b>					

PERIODIC INSPECTIONS

13. DATE MO/DAY/YR	14. PLACE	15.* ITEMS	16. PERSON CONDUCTING	15.* ITEMS	16. PERSON CONDUCTING	17. CERTIFIED BY
2/16/2022	SOMERVILLE, MA	1-4, 7	T. CROWELL	3, 5, 7	H. IBRAHIM	P. ROUNDS
5/16/2022	SOMERVILLE, MA	1-4, 7	DAN CLEMENT	3, 5, 7	H. IBRAHIM	P. ROUNDS
8/11/2022	SOMERVILLE, MA	1-4, 7	J. ESQUELIN	3, 5, 7	M. PHILLIPS	B. PARSONS
11-14-22	SOMERVILLE, MA	1-4, 7	<i>[Signature]</i>	3, 5, 7	<i>[Signature]</i>	<i>[Signature]</i>
		1-4, 7		3, 5, 7		
		1-4, 7		3, 5, 7		
		1-4, 7		3, 5, 7		
		1-4, 7		3, 5, 7		
		1-4, 7		3, 5, 7		
		1-4, 7		3, 5, 7		
		1-4, 7		3, 5, 7		
		1-4, 7		3, 5, 7		

15.\*

ITEM CODE: ☒ BRAKES ☒ RUNNING GEAR ☒ CAB EQUIP. ☒ MECH. EQUIP. ☒ ELECT. EQUIP. ☒ STEAM GEN. ☒ SAFETY APPL.

TESTS		18. H & H TEST PRESSURE "DRILLED"	19. WAIVER PART - 229		20. WAIVER - OTHER	
TYPE	INTERVAL NOT MORE THAN	21. PERSON CONDUCTING	22. TEST DATE AND PLACE	23. CERTIFIED BY	24. PREVIOUS TEST DATE AND PLACE	
METER	368 calendar days				N / A	
HAMMER AND HYDRO	736 calendar days				"DRILLED"	
AIR BRAKE 229.27	368 calendar days	T. CROWELL	2/16/2022 SOMERVILLE, MA	P. ROUNDS	2/19/2021 SOMERVILLE, MA.	
AIR BRAKE 229.29	NUMBER OF CALENDAR DAYS <u>736</u>				2/19/2021 SOMERVILLE, MA.	

Certification of true copy.

I certify that this is a true copy of the inspection and repair record of locomotive no.

1645

(Officer-in-charge)

DATE

ATTENTION: A false entry on this form is punishable by fine or imprisonment (U.S. Code, Title 18, Sec. 1001).

FORM FRA F6180-49 A (3-85)

OMB Approval No. 2130-0004

GOVERNMENT PROPERTY DO NOT REMOVE

KCS 2960

## INSTRUCTIONS

1. **OPERATED BY:** Enter the name and code\* of the railroad primarily responsible for operating the locomotive at the time the report is placed in the locomotive. Operator changes, including dates, shall be noted in "Remarks."
  2. **OWNER:** Enter the name and code\* of the owner. Changes in ownership shall be submitted as final reports.
  3. **MODEL NO.:** Enter the original builder's model number.
  4. **LOCOMOTIVE NO.:** Enter only the locomotive number. Include letters only if they are part of the locomotive markings. If the locomotive number is changed, include the information at the top of the form.
  5. **YEAR BUILT:** Enter the year the locomotive was built or rebuilt.
  6. **PROPELLED BY:** Enter Diesel-Electric (D-E), Electric (E), Mu Control Cab (MUC), Non-Mu Control Cab (NMUC), Turbo (T), Torque Converter (TC), Other (O).
  7. **HORSEPOWER:** Enter horsepower rating.
  8. **TYPE OF SERVICE:** Enter type of service the locomotive is assigned to when the report is placed in the locomotive.
  9. Enter steam generator number(s) and safe working pressure(s).
  10. Enter maximum piston travel. Enter only "Nominal" travel and do not include Manufactures Tolerance. Also include type of AIR BRAKE.
  11. Enter number of creditable calendar days the locomotive was out-of-use. Less than 30 consecutive calendar days for any out-of-use period may not be counted. Any entry "out-of-use from \_\_\_\_\_ to \_\_\_\_\_" shall be made on an inspection line and certified when a locomotive is not in use when an inspection would otherwise be due. If the locomotive is out-of-use at the end of the reporting period, complete the "To" entry with the last day of the period. The entry on the replacement report should then record the "From" as the beginning of the new period.
  12. **LAST PERIODIC INSPECTION AND TESTS:** This report covers annual periods (January 1 to December 31). The report of the preceding annual period shall be retained in the locomotive until the first periodic inspection is made after January 1 of each year or until the form is replaced as required by Section 229.23(e). When a new form 6180.49A is placed in the locomotive, enter the last periodic inspection information onto the new form in item 12 and the test information in item 24. Tests that are not applicable should be noted "N/A".
- INSPECTIONS AND TESTS:** Persons making the required tests and periodic inspections shall sign for the items tested or inspected. The employee's supervisor shall certify that the tests and inspections were completed.
- TESTS:** Where the carrier has chosen to fragment air brake cleaning, repairing and testing required by Sections 229.27 & 29. An air record shall be maintained in the cab of the locomotive.
18. **H&H:** Enter test pressure from the hydrostatic test. If reservoirs are drilled; enter word "Drilled".
  - CODE\*:** Carriers shall enter only the code assigned by FRA to their railroad.
  19. Any waivers of any type from a requirement or 49CFR Part 229 shall be identified in block No. 19 by its waiver number or by the section number affected. Explanatory information regarding the scope and content of the waiver shall be included under "Remarks".
  20. Any waiver from any FRA requirement other than a requirement of 49CFR Part 229 shall be identified in block No. 20 by its waiver number or by the part and section number affected. Explanatory information regarding the scope and content of the waiver shall be included under "Remarks".
  21. Under Tests (Air Brake 229.29), fill in the number of the calendar days subject air brake equipment is subjected to cleaning, repairing and testing.

**REPAIRS:** Defects not properly repaired.

**NOISE:** Enter any noise tests or related information in accordance with 49 CFR 210.31

**REMARKS:** The carriers should enter under "Remarks" any other clarifying or explanatory information.  
" EVENT RECORDER EQUIPPED"

Quantum 1080/M

### AUTOMATIC TRAIN CONTROL RELAYS

OSR	3385242	6/16/22	LP	L921491	6/16/22	VZ	B3886062	6/28/22	L	4979248	4/1/22
LRK	B5089171	6/28/22	RP	B3286015	6/16/22	A	1281911	6/28/22			
SP	L903512	6/28/22	PS	B3286048	6/16/22	R	L903127	6/16/22	MR	B4686015	6/28/22

INSTALLATION DATE: 11/14/2022

NEXT CHANGE-OUT DATE: 11/2028

### INDIVIDUAL DEFECTIVE RELAY REPLACEMENT

RELAY	RELAY NUMBER	RELAY DATE	INSTALLATION DATE	T.C.T. DONE -NAME / #/ DATE

# Work Order Detail

## MBETCH-2022-6107



Asset ID:	<b>1645 1990 BOMBARDIER CTC-1B COACH</b>		
Repair Location:	<b>MBETCH - BET - COACH REPAIR</b>		
Work Order ID:	<b>MBETCH-2022-6107</b>	Job Status:	<b>WORK FINISHED</b>
Job Type:	<b>PM</b>	PM Service:	<b>CTC90-PM - CTC 90 DAY CLASS PM</b>
PM Scheduled:	<b>11/18/2022</b>	Service Status:	<b>RELEASED - RELEASED FOR SERVICE</b>
Projected Completion Date:	<b>11/14/2022 06:56 PM</b>	Title:	<b>90 DAY PM</b>
Next PM Due Date:	<b>02/17/2023</b>	Priority:	<b>M4 - EVALUATE NEXT OPPORTUNITY</b>

### Non Service Request Tasks

Task: <b>AC FILTER-30 - Replace Return Air And Fresh Filters -30 Day</b>		Warranty: <b>NO</b>
WAC: <b>12 - REPLACED</b>	Reason: -	
Work Class: -	Comments:	
Task: <b>CTC90-PM - Ctc 90 Day Class Pm</b>		Warranty: <b>NO</b>
WAC: <b>22 - TESTED</b>	Reason: -	
Work Class: -	Comments:	

### Task Notes

JOSEPH.GAI 11-14-2022 5:29PM TEST PASSED. W/S PASSED.

Labor		Labor Hrs	Cost
11/14/2022 13:04	Emp: <b>ASHED - Dennis Ashe</b>	<b>0.22</b>	<b>21.78</b>
11/14/2022 15:02	<b>MARCOTJ - Jay Marcotte</b>	<b>0.03</b>	<b>2.97</b>
11/14/2022 17:29	<b>GAGLIOJ - Joseph Gaglione</b>	<b>8.17</b>	<b>808.83</b>

### Overhead

Small Parts - Labor: <b>0.00</b>	Tools: <b>0.00</b>	Total Overhead Costs: <b>0.00</b>
Small Parts - Parts: <b>0.00</b>	Overhead Costs: <b>0.00</b>	

### Messages

Other Open Work Orders

Work Order Number	Type	Status	Scheduled	Reason	Service
Mbetch-2022-6132	Repair	Pending		Mup	
Mrdvyd-2020-4906	Repair	Pending		Mup	

Unit Is 50 Days Late For Inspection Service Ctc45-Pm - Due Date 09/25/2022  
Unit Is 845 Days Late For Inspection Service Sand Ctc - Due Date 07/22/2020  
Unit Is 26 Days Late For Inspection Service Coach-Cln-A - Due Date 10/19/2022  
Unit Is 831 Days Late For Inspection Service Coach-Cln-Ex - Due Date 08/05/2020  
Unit Is 831 Days Late For Inspection Service Coach-Cln-C - Due Date 08/05/2020  
Component Automatic People Counter (Apc) Is Under Warranty - Expires 03/15/2025



# Work Order Detail

Work Order: **MBETCH-2022-6107**

## PM Checklist

Task / Comment	Employee	Failed	N/A	Completed
<b>AC FILTER-30</b> Exception PM: No				
PM5840 - REPLACE RETURN AIR AND FRESH FILTERS	NAZZARC - CHRISTOPHER NAZZARO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>CTC90-PM</b> Exception PM: No				
PM450 - ----- CAB TRAILER COACH 92-DAY INSPECTION -----	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5141 - ----- ELECTRICAL INSPECTOR -----	REIDM - MICHAEL REID	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM657 - TEST THE CAB SIGNAL SYSTEM	PHILLIM - MALCOLM PHILLIPS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5848 - COMPLETE RELAY FORM KCS-ME-FO-210034	PHILLIM - MALCOLM PHILLIPS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5849 - COMPLETE CAB SIGNAL FORM KCS-ME-FO-210035	PHILLIM - MALCOLM PHILLIPS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5432 - INSPECT DECELOSTAT MAGNETIC PICKUP FOR DAMAGE OR MISALIGNMEN	ASHED - DENNIS ASHE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: T				
PM5433 - TEST DECELOSTAT. DOCUMENT ON WHEEL SLIDE REPORT. DOCUMENT NU	ASHED - DENNIS ASHE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: MBER KCS-ME-FO-210032/PAGE 6				
PM5434 - INSPECT SPEED SENSOR	ASHED - DENNIS ASHE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3415 - VERIFY SANDING UNIT AND EQUIPMENT FOR PROPER OPERATION	PHILLIM - MALCOLM PHILLIPS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: RMM FRA 229.131(A)				
PM5435 - TEST BUZZER FUNCTION	ASHED - DENNIS ASHE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3011 - TEST OPERATION OF PA SYSTEM	PHILLIM - MALCOLM PHILLIPS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: RMM 9.3.2 FRA 238.121				
PM3012 - TEST OPERATION OF CREW INTERCOM SYSTEM	PHILLIM - MALCOLM PHILLIPS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: RMM 9.3.2 FRA 238.121, 238.305(C)(12)				
PM4046 - TEST ALL M.U. AND SIGNAL CIRCUITS	PHILLIM - MALCOLM PHILLIPS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: FRA FRA-236.586 236.588				
PM6243 - PERFORM POWER DOOR TRAINLINE CHECK	ASHED - DENNIS ASHE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: KCS-ME-WI-210403				
PM6244 - PERFORM POWER DOOR GROUNDS CHECK	ASHED - DENNIS ASHE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: KCS-ME-WI-210432				
PM5865 - TEST THE CAB SIGNAL SYSTEM ATC AND ACSES	PHILLIM - MALCOLM PHILLIPS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: RECORD RESULTS ON CAB SIGNAL INSPECTION AND TEST REPORT KCS-ME-FO-210091 FRA 229.25D 229.135 229.140				
PM5866 - PERFORM ATC CONTROL RELAY CHECK	PHILLIM - MALCOLM PHILLIPS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: RECORD RESULTS ON ATC FORM KCS-ME-FO-210091 PAGE FRA 229.25D 229.135 229.140				



# Work Order Detail

Work Order: MBETCH-2022-6107

PM5867 - TEST THE OPERATION OF THE EVENT RECORDER AND SPEED INDICATOR  Procedure: RECORD RESULTS ON SPEED AND EVENT RECORDER TEST FORM KCS-ME-FO-210057 FRA 229.135 229.140	PHILLIM - MALCOLM PHILLIPS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5135 - TEST WINDSHIELD HEATERS, ENGINEER'S AND FIREMAN'S SIDE  Procedure: FRA 2.8.10	ASHED - DENNIS ASHE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5674 - CHECK THE DAMAGE FOR ACSES ANTENNA	PHILLIM - MALCOLM PHILLIPS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM4040 - INSPECT ALL UNDERSIDE CONDUIT AND ENCLOSURES FOR SIGNS OF  Procedure: DAMAGE AND SEAL INTEGRITY FRA 229.25(B), 238.305(C)(1)	PHILLIM - MALCOLM PHILLIPS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM4041 - CHECK UNDER CAR HIGH AND LOW VOLTAGE WIRING AND CABLING AND  Procedure: ELECTRICAL EQUIPMENT FOR SIGNS OF DAMAGE OR OVERHEATING FRA 229.25(B), 238.305(C)(1)	PHILLIM - MALCOLM PHILLIPS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5215 - INSPECT ALL GROUND STRAPS AND CABLES, REPAIR OR REPLACE AS  Procedure: NEEDED FRA 229.25(B), 238.305(C)(1)	ASHED - DENNIS ASHE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3029 - INSPECT LOW VOLTAGE CIRCUIT BREAKER FOR PROPER OPERATION  Procedure: RMM 5.4.2.1 FRA 229.25(B), 238.305(C)(1)	PHILLIM - MALCOLM PHILLIPS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3030 - INSPECT LOW VOLTAGE SYSTEM FOR GROUNDS  Procedure: RMM 5.4.2.1	PHILLIM - MALCOLM PHILLIPS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3031 - INSPECT HIGH VOLTAGE CIRCUIT BREAKERS FOR PROPER OPERATION  Procedure: RMM 5.4.1.1	PHILLIM - MALCOLM PHILLIPS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3411 - INSPECT HIGH VOLTAGE EQUIPMENT MARKINGS ALL DOORS AND COVER  Procedure: PLATES GUARDING HIGH VOLTAGE EQUIPMENT ARE MARKED DANGER HIGH VOLTAGE OR WITH THE WORD DANGER AND THE NORMAL VOLTAGE CARRIED BY THE PARTS SO PROTECTED. RMM FRA 238.303 (E)(12); 229.85; 238.305(C)(6)	PHILLIM - MALCOLM PHILLIPS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3032 - TEST CONVENIENCE OUTLETS (120 VAC)  Procedure: RMM 5.9.3	PHILLIM - MALCOLM PHILLIPS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3036 - INSPECT ALL TRAINLINE JUMPERS AND RECEPTACLES FOR DAMAGE, AR  Procedure: CING AND OVERHEATING RMM 5.4.3.1 AND 5.4.3.2 FRA 238.303(E) (11)	ASHED - DENNIS ASHE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM043 - ----- ELECTRICIAN -----	REIDM - MICHAEL REID	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5216 - CHECK BATTERY CHARGER FOR PROPER OPERATION AND VOLTAGE  Procedure: SETTING - 72 VDC, RECORD RESULTS ON CRM-22C AND BATTERY CELL VOLTAGE TEST FORM RMM SAB/NIFE MAN., CH. 4-MIM FRA 229.43(A)(B)	ASHED - DENNIS ASHE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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PM5868 - VERIFY BATTERY CELL VOLTAGE AND RECORD READING ON CRM-22C	ASHED - DENNIS ASHE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: FILL CELLS TO FULL MARK-WASH TRAYS TIGHTEN CONNECTIONS AND GREASE TERMINALS FRA 229.43AB RMM SAB/NIFE MAN CH. 4-MIM				
PM5669 - VERIFY BATTERY SYSTEM FOR UNOBSTRUCTED VENTING	ASHED - DENNIS ASHE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5670 - VERIFY BATTERY TERMINAL CONNECTORS FOR TIGHTNESS	ASHED - DENNIS ASHE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5671 - VERIFY BATTERY ELECTROLYTE LEVEL	ASHED - DENNIS ASHE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5672 - VERIFY BATTERY CHARGING RATE	ASHED - DENNIS ASHE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM711 - CHECK ALL SWITCHES, RELAYS, CONTACTORS, SHUNT TRIPS, WIRING	PHILLIM - MALCOLM PHILLIPS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: CONNECTIONS AND CURCUIT BREAKERS FOR PROPER OPERATION, SIGNS OF LOOSENING AND OVERHEATING FRA 238.305				
PM5205 - REPLACE AS NEEDED HEAD LIGHTS, BRAKE INDICATOR LIGHTS, CLASS	ASHED - DENNIS ASHE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: LIGHTS, NUMBER LIGHTS, STEP LIGHTS, AND EMERGENCY LIGHTS (FUNCTIONALITY CHECK) FRA 229.129, 229.125				
PM5328 - VERIFY EMERGENCY LIGHTING DURATION. RECORD RESULTS ON DURATI	ASHED - DENNIS ASHE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: ON TEST FORM. ATTACH TO WORK PACKET. DOCUMENT NUMBER KCS-ME-FO-210041/TI-045-C-LI REV. 2 FRA 238.307(C) (5) RMM 5				
PM3040 - VERIFY OPERATION OF ALL LIGHTS. REPLACE LAMPS AS NECESSARY	ASHED - DENNIS ASHE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: RMM 2.8.7.2 AND 2.3.9				
PM3042 - VERIFY ALL LIGHT FIXTURES FOR PROPER SECUREMENT. CHECK FOR	ASHED - DENNIS ASHE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: DUST. CLEAN AS NECESSARY RMM 2.8.7.2; 6.3 AND 6.4				
PM3044 - VERIFY ALL LAMP SOCKETS FOR BREAKS; CRACKS; SCORCHING AND	ASHED - DENNIS ASHE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: DAMAGE RMM 6.3; 6.7.2 AND 6.7.5				
PM3045 - VERIFY ALL LAMP SOCKET TERMINAL AND CONTACTS FOR CORROSION	ASHED - DENNIS ASHE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: OR DAMAGE. CLEAN AS NECESSARY RMM 6.3 AND 6.4				
PM3047 - VERIFY ALL LAMP WIRE LEADS FOR FRAYING; SCORCHING; INSULATIO	ASHED - DENNIS ASHE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: N BREAKS AND OTHER SIGNS OF DAMAGE. CLEAN OR REPAIR AS NECESSARY RMM 6.3 AND 6.4				
PM3056 - VERIFY ALL BALLASTS AND BATTERY PACKS FOR BREAKS; CRACKS;	ASHED - DENNIS ASHE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: SCORCHING AND OTHER SIGNS OF DAMAGE. REPLACE AS NECESSARY RMM 6.3; 6.7.3 AND 6.7.6				

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PM5869 - PERFORM HVAC INSPECTION-DOCUMENT ON HVAC REPORT  Procedure: DOCUMENT NUMBER KCS-ME-FO-210055-KCS-HVAC-INSP002-NEED TO REVIEW HVAC DOCUMENT FRA 238.303 E17	NAZZARC - CHRISTOPHER NAZZARO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM4061 - REPLACE RETURN AIR AND FRESH AIR INTAKE FILTERS  Procedure: FRA 238.303 (E)(17)	NAZZARC - CHRISTOPHER NAZZARO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM4060 - CHECK THE EVAPORATOR BLOWER AND CONDENSER FANS FOR PROPER  Procedure: WORKING CONDITION FRA 238.303	NAZZARC - CHRISTOPHER NAZZARO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM4063 - CHECK OPERATION OF CAB HEATERS  Procedure: FRA 229.119(D), 229.127	ASHED - DENNIS ASHE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM4064 - INSPECT AND REPAIR TRAP HEATERS AS NEEDED  Procedure: RMM-1.5.3 FRA FRA-238.305(C)(13)	ASHED - DENNIS ASHE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5142 - ----- CARMAN INSPECTOR -----	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5870 - PERFORM COUPLER INSPECTION-DOCUMENT ON COUPLER REPORT  Procedure: DOCUMENT NUMBER KCS-ME-FO-210072	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM371 - REMOVE CAB CARD AND REPORT ALL TEST DATES. REAPPLY CAB CARD  Procedure: AT CONCLUSION OF INSPECTION FRA-236.586; 236.588	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3071 - PERFORM SINGLE CAR TEST. SIGN CAB CARD AND DATE THE HAND BRA  Procedure: KE RMM 10.3.1 FRA 229.25, 238.107, 238.313	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3447 - INSPECT ALL BRAKE COMPONENTS FOR DAMAGE AND LEAKAGE  Procedure: RMM 10.5.6 FRA 229.57; 238.307(C)(10)	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3422 - PERFORM LEAKAGE CHECK OF TELLTALE HOLES ON COMBINED CONTROL  Procedure: SELECTOR AND MAIN RESERVOIR FRA 229.31	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5871 - INSPECT WHEELS FOR DEFECTS-MEASURE WHEELS  Procedure: DOCUMENT NUMBER KCS-ME-FO-210012	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5872 - INSPECT AXLE BEARING TYPE AP CLASS E6 AXLE BEARING  Procedure: FOR SIGNS OF DAMAGE OR OVERHEATING	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3417 - INSPECT CENTER PIN FOR COTTER PIN AND WASHER  Procedure: RMM FRA 229.67	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3062 - INSPECT SIDE BEARER  Procedure: RMM 3.3.11.1 FRA 238.303(E) (7)	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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PM3080 - INSPECT EQUIPMENT BOX SEALS FOR DAMAGE Procedure: RMM 2.3.18 AND 2.3.21	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3419 - INSPECT BOLSTER ANCHOR FOR DAMAGE OR LOOSE OR MISSING HARDWA Procedure: RE. INSPECT ANCHOR ROD BUSHING FOR DAMAGE. RMM 3.3.8.1	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3418 - INSPECT TRUCK FRAME AND BOLSTER FOR LOOSE OR BROKEN WELDS AN Procedure: D MISSING HARDWARE. RMM 3.3.1.1; 3.3.1.2; FRA 238.303(E)(6)	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5873 - INSPECT SAFETY HANGER AND VERIFY CLEARANCE WITH BOLSTER	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3084 - INSPECT PRIMARY SUSPENSION SYSTEM Procedure: RMM 3.3.6.1 AND 3.3.6.2 FRA 238.303(E) (18) FRA 238.307(C) (11)	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3081 - INSPECT BRAKE RIGGING FOR DAMAGE Procedure: RMM 2.3.18 AND 2.3.21	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5469 - INSPECT EXTERIOR DECALS AND REFLECTIONS FOR LEGIBILITY AND D Procedure: AMAGE FRA 238.303(E) (18)	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3106 - TEST AND INSPECT BODY END DOOR MECHANICAL ASSEMBLY AND Procedure: PROPER OPERATION RMM 7.4.1.3; 7.3.2.3 (92); 7.3.3.3.2, 7.3.3.3.3 (184) FRA 238.305(C)(10)	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3092 - INSPECT AND VERIFY TRAP DOOR MOVEMENT IS SMOOTH AND THAT Procedure: TRAP DOOR LATCHES LOCK RMM 7.3.1.2 FRA 238.305(C) (8)	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3107 - INSPECT BODY END DOOR PANEL Procedure: RMM 7.3.3.3.3 FRA 238.305(C) (10)	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3436 - INSPECT SIDE ENTRANCE DOOR FOR OPEN AND CLOSE OPERATION. ENS Procedure: URE FREEDOM OF MOVEMENT RMM 7.3.1.1; 7.3.2.1; FRA 238.305(C)(10)	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3109 - INSPECT COLLISION POST DOOR FOR PROPER OPERATION Procedure: RMM 7.4.1.4, 7.3.2.4 (92), 7.3.3.4.1 (184) FRA 238.305(C)(10)	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3063 - INSPECT VESTIBULE STEPS FOR CRACKED WELDS OR SEPARATION Procedure: RMM 2.1.4.12	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3101 - INSPECT VESTIBULE SIGNAGE FOR LEGIBILITY AND CLEANLINESS. Procedure: VERIFY NO STICKERS OVERLAP RMM 2.3.11 FRA 238.305(C) (7)	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM6001 - INSPECT STRYKER CHAIR IS PRESENT AND IN WORKING ORDER	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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PM3070 - INSPECT DIAPHRAGM FOR CUTS; DAMAGE AND PROPER SECUREMENT	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: RMM 2.3.4 AND 2.3.6 FRA 238.303(E) (14)				
PM3098 - VISUAL INSPECT LOW LEVEL EXIT PATH MARKINGS (LLEPM) ARE IN	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: PLACE RMM 2.1.4.8; 2.3.15 AND 2.8.8 FRA 238.127 AND 238.307(C) (5)				
PM3100 - INSPECT INTERIOR SIGNAGE FOR LEGIBILITY AND CLEANLINESS.	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: VERIFY NO STICKERS OVERLAP RMM 2.3.11 FRA 238.305(C) (7)				
PM3103 - INSPECT INTERIOR AND EXTERIOR PAINTED SURFACES	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: RMM 2.3.21				
PM3104 - INSPECT PASSENGER SEATS FOR PROPER MOUNTING HARDWARE;	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: SECUREMENT; UPHOLSTERY CONDITION AND FOLDING SEAT OPERATION. INSPECT PASSENGER SEATS. RMM 2.3.17 AND 2.5.3 FRA 238.307(C) (1)				
PM5479 - INSPECT WEATHER STRIPPING FOR TORN OR MISSING PIECES	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: FRA 238.305				
PM3113 - INSPECT FLOORING	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: RMM 2.3.12 FRA 238.305				
PM3437 - INSPECT FOR MISSING OR LOOSE HARDWARE. REPLACE AS NEEDED	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: RMM 7.3.1.2 FRA 238.305				
PM3094 - INSPECT WINDOW PANES; WINDSHIELD GLAZING STRIPS AND ZIPPERS	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: FOR DAMAGE RMM 2.3.22 FRA 223.17 AND 238.221				
PM4087 - VERIFY PROPER OPERATION OF EMERGENCY EXIT WINDOW LOCATION	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: AND RECORD. FRA 238.305(C)(4)				
PM5874 - INSPECT MR AND BP HOSES IN PLACE WITH SPARES IN LOC - CARMAN	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: FRA 238.307C 4				
PM3434 - INSPECT OPERATION OF WINDSHIELD WIPERS	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: RMM 2.3.25; 2.4.11; 2.8.10 FRA 229.119(B)				
PM117 - ----- CARMAN -----	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM4080 - INSPECT ALL BRAKE EQUIP INCL. VALVES TREAD BRAKES FOR PROPER	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: OPERATION; SECUREMENT OF ALL BOLTS AND BUSHINGS AND COTTER KEYS RMM 9.2.2				

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PM4028 - CHANGE BRAKE SHOES AS NEEDED Procedure: RMM 9.2.13 FRA FRA-238.311, FRA-238.307(C)(10)	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3324 - TEST OPERATION AND LUBRICATE HANDBRAKE. TEST OPERATION Procedure: OF HANDBRAKE INDICATOR SWITCH RMM 10.3.11; 10.5.2 FRA 238.231(H); 238.307(C)(13); 238.307(D)(2)	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM4010 - TEST ALL EMERGENCY VALVES (CONDUCTORS VALVES) Procedure: FRA-238.311, FRA-238.307(C)(10)	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM817 - CHECK ALL EQUALIZER BEAM BUSHINGS FOR DAMAGE, REPLACE AS REQ Procedure: UIRED - 8 LOCATIONS PER COACH RMM 12.2.3 FRA 238.303(C)(5)(IV)	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5202 - INSPECT AND TEST DOOR OPERATION AND LUBRICATE ALL MOVEABLE P Procedure: ARTS INCLUDING DOOR TRACKS AND ROLLERS WITH DRY GRAPHITE AS NEEDED RMM-6.1.2 FRA FRA-238.305(C)(13), FRA-238.305(C)(8)	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5875 - VERIFY ENTIRE CAR BODY FOR LOOSE DEFECTIVE AND MISSING PARTS Procedure: TO INCLUDE LUGGAGE RACKS SEATS SEAT ATTACHMENTS AND TRAPS FRA-238.307C1 RMM-1.4.1.A	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM4016 - CHECK FOR PROPER EMERGENCY SIGNAGE INTERIOR AND EXTERIOR AND Procedure: HIGH VOLTAGE SIGNS FRA-238.305(C)(7)	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3099 - INSPECT INTERIOR PANELS FOR DAMAGE AND PROPER SECUREMENT Procedure: RMM 2.3.16 FRA 238.305(C)(13)	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3088 - INSPECT HANDLES AND CATCHES FOR PROPER OPERATION Procedure: RMM 7.3.2.2; 7.3.2.3 FRA 238.305	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM331 - INSPECT ENTIRE CAR BODY FOR LOOSE , DEFECTIVE AND Procedure: MISSING PARTS, TO INCLUDE LUGGAGE RACKS, SEATS, SEAT ATTACHMENTS AND TRAPS RMM-1.4.1.A FRA FRA-238.307(C)(1)	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5876 - VERIFY EMERGENCY PRY BAR AND HOSE WRENCH ARE IN PLACE Procedure: REPLACE AS NECESSARY AND SEAL FRA-238.307C4	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3323 - INSPECT FIRST AID KIT. REPLENISH AS NECESSARY Procedure: RMM 2.3.10 FRA 238.305(C)(4)	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM4036 - CLEAN FRESH AIR INTAKE SCREEN AT BOTH ENDS Procedure: RMM 7.10.10	REIDM - MICHAEL REID	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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PM4086 - REPLACE BAD-ODOR SPONGE AT BOTH ENDS OF CAR	REIDM - MICHAEL REID	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: RMM PM-007-C-HA				
PM5214 - TEST AIR GAUGES	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: FRA-229.46				
PM3446 - REPLACE WIPER BLADES (EVERY 92 DAYS)	REIDM - MICHAEL REID	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: RMM 2.3.25; 2.4.11; 2.8.10 FRA 229.119(B)				
PM3440 - INSPECT CAB SEAT, SUN SHADE, AND FOOT REST	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: RMM 2.3.3, 2.8.3 FRA 229.119(C)(E), 229.119(A), 238.305				
PM6312 - INSPECT AEI TAG – SEE DOC WI-ME-210311 PAGE 5	GAGLIOJ - JOSEPH GAGLIONE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: DOCUMENT WI-ME-210311 – RELEVANT SECTION IS ON PAGE 5:				
PERIODIC AEI TAG VERIFICATION REPLACEMENT AND PROGRAMMING PROCEDURE: AEI TAGS WILL BE VERIFIED IN THE FIELD AS TRAINSETS ARE CYCLED THROUGH S&I BUILDINGS, AND ALSO DURING PMS. AEI TAG READERS VERIFY TAG FUNCTIONALITY BY REPORTING VEHICLE ROAD NUMBER AND POSITION OF EACH TAG ON VEHICLE, 2/VEHICLE. 11. USING THE TRANSORE E1150 AEI TAG READER, CHECK FUNCTIONALITY OF EACH TAG ON VEHICLE, 2/VEHICLE, BY PRESSING AND HOLDING DOWN THE BLACK BUTTON FOR 2 SECONDS. IF FUNCTIONING PROPERLY, TAG READER WILL DISPLAY CURRENT CONFIGURATION. 12. IF AEI TAG REQUIRES REPLACEMENT, DRILL OUT EXISTING RIVET HEAD WITH A #11 OR 3/16" DRILL BIT, AND PUNCH OUT RIVET WITH SMALL DRIFT PIN PUNCH. REMOVE OLD TAG. 13. INSTALL NEW TAG: A. ENSURE THAT THE CORRECT TAG, PROGRAMMED BY VEHICLE & POSITION, IS INSTALLED "RIGHT-SIDE UP & OUT", AND AT THE DESIGNATED POSITION. B. INSTALL WITH BLIND RIVETS WITH A POP RIVET GUN. NOTE THAT BI-LEVEL COACHES USE A DIFFERENT RIVET TYPE FROM ALL OTHER VEHICLES: • FOR ALL SINGLE LEVEL VEHICLES & LOCOS: MCMASTER CARR PN: 97526A360 DOMED HEAD ALUMINUM BLIND RIVETS LARGE-DIAMETER HEAD, 3/16" DIAMETER, FOR 0.376"-0.5" THICKNESS. • FOR ALL BI-LEVEL VEHICLES: MCMASTER CARR PN: 97525A640 DOMED HEAD BLIND RIVETS 318-8 STAINLESS STEEL BLIND RIVETS, DOMED HEAD, 3/16" DIAMETER, FOR 0.251"-0.375" THICKNESS.				
PM110 - ----- SHEET METAL WORKER -----	MARCOTJ - JAY MARCOTTE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM4070 - CHECK UNDERCAR PIPING FOR SIGNS OF LOOSENING AND DAMAGE	MARCOTJ - JAY MARCOTTE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Procedure: RMM 9.2.2, FRA-238.307(C)(10)				

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PM5211 - INSPECT ALL PIPING, VALVES, HOSES & FITTINGS THAT SHOW SIGNS  Procedure: OF LEAKS, ABRASIONS, CRACKS, HOLES, HAVE MISSING OR BROKEN COMPONENTS OR ARE BELIEVED TO HAVE RESTRICTIONS. REPAIR AND REPLACE AS NEEDED RMM 9.2.2, 4.1.4, 2.2.4	MARCOTJ - JAY MARCOTTE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5212 - TEST SANDER SYSTEM AND ITS COMPONENTS REPAIR AND REPLACE AS  Procedure: NEEDED FRA 229.131(A)	MARCOTJ - JAY MARCOTTE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3452 - FLUSH AND CLEAN HVAC EVAPORATOR DRAIN PANS  Procedure: RMM 8.3.16	MARCOTJ - JAY MARCOTTE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3405 - REPAIR ANY TORN OR MISSING EVAPORATOR INSULATION  Procedure: RMM 8.3.16	MARCOTJ - JAY MARCOTTE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3402 - LUBRICATE ALL HANDLES; MAKE SURE PAINTED AND NOT FROZEN	MARCOTJ - JAY MARCOTTE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3404 - INSPECT CAR FOR LOOSE OR DAMAGED PIPING  Procedure: RMM 3.3.7.1 FRA 238.303(E) (5)	MARCOTJ - JAY MARCOTTE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM3330 - INSPECT ALL VALVES, HOSES AND FITTINGS AND REPAIR LEAKS, ABR  Procedure: ASIONS. CRACKS AND HOLES RMM 2.3.18 FRA 238.307(C)(10)	MARCOTJ - JAY MARCOTTE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5518 - INSPECT AIR SPRINGS AND PIPING FOR DAMAGE AND LEAKS  Procedure: FRA 238.303(E) (5)	MARCOTJ - JAY MARCOTTE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5519 - INSPECT ANGLE COCKS FOR DAMAGE	MARCOTJ - JAY MARCOTTE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5877 - INSPECT MR AND BP HOSES IN PLACE WITH SPARES IN LOC - PIPER  Procedure: FRA 238.307C 4	MARCOTJ - JAY MARCOTTE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5032 - ----- COACH CLEANER -----	REIDM - MICHAEL REID	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5974 - REMOVE ALL TRASH	REIDM - MICHAEL REID	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5982 - REMOVE ALL TRASH FROM ELECTRICAL LOCKER AND FUSEE BOX	REIDM - MICHAEL REID	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5983 - WIPE DOWN ALL HANDLES GRAB HANDLES AND HANDHOLDS	REIDM - MICHAEL REID	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5984 - CLEAN SEAT BACKS BOTTOMS AND TABLES	REIDM - MICHAEL REID	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5985 - SWEEP AND WET MOP FLOORS AND STAIRS	REIDM - MICHAEL REID	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5986 - HAND WASH ALL TOILET ROOM SURFACES AND BUTTONS	REIDM - MICHAEL REID	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5987 - CLEAN AC VENTS	REIDM - MICHAEL REID	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5988 - WIPE DOWN ALL CAB SURFACES CONTROLS AND DISPLAY SCREENS	REIDM - MICHAEL REID	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



## Work Order Detail

Work Order: **MBETCH-2022-6107**

PM5989 - CLEAN WINDSHIELD INSIDE AND OUTSIDE	REIDM - MICHAEL REID	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5990 - CLEAN ALL WINDOWS	REIDM - MICHAEL REID	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM5975 - REMOVE ALL GRAFFITI AND UNAUTHORIZED MATERIALS	REIDM - MICHAEL REID	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Test Results

**Test ID: 726366** Test Date: 11/14/2022 Result: PASS Comment:

Component	Result	Test Date/Time	Numeric Value Found	Numeric Value Adjust	Qualitative Finding	Line Comment
POWERDOOR-S-005 - TRACTION INTERLOCK TRAINLINE - COMM 11					1 - PASS	
POWERDOOR-S-010 - POWER DOOR TRAINLINES - COMM 14-17					1 - PASS	
POWERDOOR-S-015 - CONDUCTOR INDICATOR TRAINLINES COMM 18-23					1 - PASS	

**Test ID: 726367** Test Date: 11/14/2022 Result: PASS Comment:

Component	Result	Test Date/Time	Numeric Value Found	Numeric Value Adjust	Qualitative Finding	Line Comment
POWERDOOR-SG-005 - DOOR GROUND CHECK					1 - PASS	

**Test ID: 726368** Test Date: 11/14/2022 Result: PASS Comment:

Component	Result	Test Date/Time	Numeric Value Found	Numeric Value Adjust	Qualitative Finding	Line Comment
EMERG WINDOW FAIL - EMERGENCY WINDOW FAILURE REASON						
EMERGENCY WINDOW - EMERGENCY WINDOW					L1	

**Test ID: 728383** Test Date: 11/14/2022 Result: PASS Comment:

Component	Result	Test Date/Time	Numeric Value Found	Numeric Value Adjust	Qualitative Finding	Line Comment
FIRE EXT-SC-10 - CENTER OF COACH ABOVE LUGGAGE RACK			2,019.00		IN DATE	

### WO Notes

**Comments:**

90 DAY PM

Internal Parts Cost:	
Internal Labor Cost:	\$833.58
Commercial Parts Cost:	\$0.00
Commercial Labor Cost:	\$0.00
Commercial Misc Cost:	\$0.00
Commercial Tax & Markup:	\$0.00
Equipment Usage Costs:	\$0.00
Overhead Costs:	\$0.00
<b>Internal Total:</b>	<b>\$833.58</b>
<b>Commercial Total:</b>	<b>0.00</b>
<b>Work Order Total:</b>	<b>\$833.58</b>

# Work Order Detail

## MBETCH-2022-6499



Asset ID:	<b>1645 1990 BOMBARDIER CTC-1B COACH</b>		
Repair Location:	<b>MBETCH - BET - COACH REPAIR</b>		
Work Order ID:	<b>MBETCH-2022-6499</b>	Job Status:	<b>WORK FINISHED</b>
Job Type:	<b>REPAIR</b>	Service Status:	<b>RELEASED - RELEASED FOR SERVICE</b>
Projected Completion Date:	<b>11/14/2022 06:54 PM</b>	Title:	<b>MR1 92 DAY</b>
Priority:	<b>M4 - EVALUATE NEXT OPPORTUNITY</b>		

### Service Request Tasks

Service Request: **1645-4582227**

Comments: **MUP IN2022-032 BOMBARDIER WHEEL SLIDE TESTING  
COMPLETE ATTACHED WORK INSTRUCTIONS**

Cause: -

Correction: **TESTED PASS WHEEL SLIDE TEST**

Service Request: **1645-4635459**

Symptom: **ACSES20 - ACSES NON-CONFORMING SPEED**

Comments: **(T-142) ENGR C/O ACSES AT BAGLEY INTERLOCKING DUE TO ACSES GIVING A PTS AT THREE CONSECUTIVE INTERLOCKING (5:54AM-7:02AM)**

**(T-108) ENGR C/O ACSES AT NORTHEY POINT DUE TO ACSES GIVING PTS AT ALL INTERLOCKINGS (9:51AM-10:33AM)**

**ACSES WAS CUT OUT DUE TO ATC SHOWING C/O INTERMITTENTLY. THE STEPS BELOW NEED TO BE DONE:**

- 1. INSPECT ALL PCBS IN CARDFILE. MAKE SURE ALL PCBS ARE SECURED IN THE CARDFILE.**
- 2. INSPECT THE PLUG ON AIU. MAKE SURE THAT THE PLUG IS NOT BROKEN AND THE IS CONNECTED TO AIU PROPERLY.**
- 3. INSPECT THE WIRES IN ACSES ADU. MAKE SURE ALL WIRES ARE SECURED.**
- 4. OPEN THE BOX WHERE ACSES CUT OUT SWITCH IS. MKE SURE ALL WIRES ON THE CUT OUT SWITCH ARE TIGHT AND ARE NOT TOUCHING THE BOX.**

Cause: -

Correction: **REPLACED BATTERIES WAS GROUND IT AND RE PLACED EVENT ROCORDER ...AND RE PLACED FUSE IN CAB SIGNAL AND TESTED OK PASS ACSES MAP 8 A....ATC MAGNA VALVE SWITCH WAS LOSE SHOW ATC CUT OUT RESECURE SWITCH**

### Non Service Request Tasks

Task: **B02-111 - Control Trainline (Mu)**

Warranty: **NO**

WAC: **02 - CLEANED**

Reason: **C - WEAR AND TEAR**

Work Class: **9 - MR-1 DEFECTS**

Comments:

#### Task Notes

HAISM.IBRA/ 11-14-2022 9:53AM MU PINS NEED TO BE CLEAN AND LUBD

DENNIS.ASI 11-14-2022 12:57PM DONE WITH J PULLANO

Task: **B02-111-0150 - Jumper Cable-Blue Communication 27 Pin**

Warranty: **NO**

WAC: **02 - CLEANED**

Reason: **C - WEAR AND TEAR**

Work Class: **9 - MR-1 DEFECTS**

Comments:

#### Task Notes

HAISM.IBRA/ 11-14-2022 9:53AM COM PINS NEED TO BE CLEAN AND LUBED

DENNIS.ASI 11-14-2022 12:58PM DONE WITH J PULLANO

Task: **B03-234-0060 - Warning Bell Ringer Clevis**

Warranty: **NO**

WAC: **12 - REPLACED**

Reason: **C - WEAR AND TEAR**

Work Class: **2 - NON-SCHEDULED**

Comments:

#### Task Notes

JOSEPH.GAI 11-14-2022 9:21AM MISSING LOCKING NUT AND BOLT.



## Work Order Detail

Work Order: **MBETCH-2022-6499**

Task: <b>B04-100-0010 - 480 Volts Ac Jumper O Rings</b>		Warranty: <b>NO</b>
WAC: <b>09 - SERVICED</b> Work Class: <b>9 - MR-1 DEFECTS</b>	Reason: <b>C - WEAR AND TEAR</b> Comments:	
<b>Task Notes</b> HAISM.IBRA/ 11-14-2022 9:54AM ALL 480 CABLE NEED SHRINK AND O RING DENNIS.ASI 11-14-2022 12:58PM DONE WITH J PULLANO		
Task: <b>B04-112-0120 - Convenience Outlet 4 - Co4</b>		Warranty: <b>NO</b>
WAC: <b>12 - REPLACED</b> Work Class: <b>9 - MR-1 DEFECTS</b>	Reason: <b>C - WEAR AND TEAR</b> Comments:	
<b>Task Notes</b> HAISM.IBRA/ 11-14-2022 9:54AM 120 OUT LET COVER BROKEN		
Task: <b>B04-112-0720 - Battery Charger</b>		Warranty: <b>NO</b>
WAC: <b>12 - REPLACED</b> Work Class: <b>9 - MR-1 DEFECTS</b>	Reason: <b>C - WEAR AND TEAR</b> Comments:	
<b>Task Notes</b> HAISM.IBRA/ 11-14-2022 10:04AM RE PLACE BATTERY HAISM.IBRA/ 11-14-2022 10:05AM BATTERY GROUND IT DENNIS.ASI 11-14-2022 1:02PM ENTIRE BATTERY SET (10) HAS BEEN CHANGED.DONE WITH J PULLANO		
Task: <b>B05-111 - Trap Door Arrangement</b>		Warranty: <b>NO</b>
WAC: <b>01 - ADJUSTED</b> Work Class: <b>2 - NON-SCHEDULED</b>	Reason: <b>C - WEAR AND TEAR</b> Comments:	
<b>Task Notes</b> JOSEPH.GAI 11-14-2022 1:00PM ALL TRAPS NEED ADJUSTMENT.		
Task: <b>B05-113-0270 - Door Hanger/Suspension</b>		Warranty: <b>NO</b>
WAC: <b>01 - ADJUSTED</b> Work Class: <b>2 - NON-SCHEDULED</b>	Reason: <b>C - WEAR AND TEAR</b> Comments:	
<b>Task Notes</b> JOSEPH.GAI 11-14-2022 9:24AM L1, L2, R2 ROLLER SCREWS LOOSE. L1 DOOR HARD TO OPERATE.		
Task: <b>B05-113-0300 - Door Latch/Catch Assembly -Lower</b>		Warranty: <b>NO</b>
WAC: <b>01 - ADJUSTED</b> Work Class: <b>2 - NON-SCHEDULED</b>	Reason: <b>C - WEAR AND TEAR</b> Comments:	
<b>Task Notes</b> JOSEPH.GAI 11-14-2022 9:28AM L2 DOOR CLOSE KEEPER LOOSE. JAYSON.CLE 11-14-2022 3:51PM TIGHTENED		
Task: <b>B05-121-0270 - Decal - Emergency Window Removal</b>		Warranty: <b>NO</b>
WAC: <b>12 - REPLACED</b> Work Class: <b>2 - NON-SCHEDULED</b>	Reason: <b>C - WEAR AND TEAR</b> Comments:	
<b>Task Notes</b> JOSEPH.GAI 11-14-2022 12:57PM BOTH EXTERIOR REMOVAL & EMERGENCY ENTRY DECALS FADED. ENTRY DECALS NEED UPDATED ONES.		
Task: <b>B05-131-0120 - Decal - Danger 480 Volts</b>		Warranty: <b>NO</b>
WAC: <b>02 - CLEANED</b> Work Class: <b>2 - NON-SCHEDULED</b>	Reason: <b>C - WEAR AND TEAR</b> Comments:	
<b>Task Notes</b> JOSEPH.GAI 11-14-2022 9:23AM #1 & #2 480 V DECALS DIRTY.		

## Work Order Detail

Work Order: **MBETCH-2022-6499**

Task: <b>B05-151-0090 - Emergency Window Assembly</b>		Warranty: <b>NO</b>
WAC: <b>02 - CLEANED</b>	Reason: <b>C - WEAR AND TEAR</b>	
Work Class: <b>2 - NON-SCHEDULED</b>	Comments:	
<b>Task Notes</b>		
JOSEPH.GAI 11-14-2022 9:26AM BOTH RED BEADING DIRTY.		
Task: <b>B05-151-0300 - Handle; For Gasket; Emergency Window</b>		Warranty: <b>NO</b>
WAC: <b>I - INSTALLED</b>	Reason: <b>C - WEAR AND TEAR</b>	
Work Class: <b>2 - NON-SCHEDULED</b>	Comments:	
<b>Task Notes</b>		
JOSEPH.GAI 11-14-2022 9:26AM SECURE TESTED PULL HANDLE.		
Task: <b>B05-151-0930 - Window Tool Box Emergency On Bomb Cars Uses Gasket 46 105</b>		Warranty: <b>NO</b>
WAC: <b>09 - SERVICED</b>	Reason: <b>C - WEAR AND TEAR</b>	
Work Class: <b>2 - NON-SCHEDULED</b>	Comments:	
<b>Task Notes</b>		
JOSEPH.GAI 11-14-2022 9:30AM SECURE PRY BAR. REPLENISH GLOW STICKS. (6) SECURE COVER.		
JAYSON.CLE 11-14-2022 3:53PM REPLENISHED AND RESEALED		
Task: <b>B08-113-0120 - Ground Strap - Truck To Axle - Trucks 1+2</b>		Warranty: <b>NO</b>
WAC: <b>12 - REPLACED</b>	Reason: <b>C - WEAR AND TEAR</b>	
Work Class: <b>9 - MR-1 DEFECTS</b>	Comments:	
<b>Task Notes</b>		
HAISM.IBRA 11-14-2022 9:55AM RE PLACE AXEL 2 GROUND STRAP		
Task: <b>B08-113-0150 - Ground Strap - Car Body To Truck - Trucks 1+2</b>		Warranty: <b>NO</b>
WAC: <b>12 - REPLACED</b>	Reason: <b>C - WEAR AND TEAR</b>	
Work Class: <b>9 - MR-1 DEFECTS</b>	Comments:	
<b>Task Notes</b>		
HAISM.IBRA 11-14-2022 9:56AM A END AND B END TRUCK GROUND STRAP BROKEN		
DENNIS.ASI 11-14-2022 4:52PM DONE WITH J PULLANO		
Task: <b>B12-111-0030 - Fixture; Low Ceiling; Interior; 39</b>		Warranty: <b>NO</b>
WAC: <b>09 - SERVICED</b>	Reason: <b>C - WEAR AND TEAR</b>	
Work Class: <b>9 - MR-1 DEFECTS</b>	Comments:	
<b>Task Notes</b>		
HAISM.IBRA 11-14-2022 9:57AM RE LAMP 15 PASSENGER LIGHT AND CLEAN LENSES		
DENNIS.ASI 11-14-2022 4:53PM DONE WITH J PULLANO		
Task: <b>B12-111-0060 - Fixture; Low Ceiling; Interior; 27</b>		Warranty: <b>NO</b>
WAC: <b>09 - SERVICED</b>	Reason: <b>C - WEAR AND TEAR</b>	
Work Class: <b>9 - MR-1 DEFECTS</b>	Comments:	
<b>Task Notes</b>		
HAISM.IBRA 11-14-2022 9:58AM A END VESTIBULE RE LAMP AND CLEAN LENSES		
DENNIS.ASI 11-14-2022 4:54PM DONE WITH J PULLANO		

## Work Order Detail

Work Order: **MBETCH-2022-6499**

Task: <b>B12-111-0090 - Fluorescent Tubes; F20T12</b>		Warranty: <b>NO</b>
WAC: <b>09 - SERVICED</b> Work Class: <b>9 - MR-1 DEFECTS</b>	Reason: <b>C - WEAR AND TEAR</b> Comments:	
<b>Task Notes</b>		
HAISM.IBRA 11-14-2022 9:58AM B END VESTIBULE RE LAMP AND CLEAN LENSES DENNIS.ASH 11-14-2022 4:54PM DONE WITH J PULLANO		
Task: <b>B12-111-0120 - Fluorescent Tubes; F30T12</b>		Warranty: <b>NO</b>
WAC: <b>12 - REPLACED</b> Work Class: <b>9 - MR-1 DEFECTS</b>	Reason: <b>C - WEAR AND TEAR</b> Comments:	
<b>Task Notes</b>		
HAISM.IBRA 11-14-2022 9:59AM A END VESTIBULE RE PLACE TWO BALLAST DENNIS.ASH 11-14-2022 4:54PM DONE WITH J PULLANO		
Task: <b>B12-112 - Electrical Locker Lighting</b>		Warranty: <b>NO</b>
WAC: <b>12 - REPLACED</b> Work Class: <b>9 - MR-1 DEFECTS</b>	Reason: <b>C - WEAR AND TEAR</b> Comments:	
<b>Task Notes</b>		
HAISM.IBRA 11-14-2022 10:00AM RE LAMP ELEC LOCKER DENNIS.ASH 11-14-2022 4:55PM DONE WITH J PULLANO		
Task: <b>B12-115-0150 - Light Assy Indicating Signaloutside Bombardier Inc</b>		Warranty: <b>NO</b>
WAC: <b>12 - REPLACED</b> Work Class: <b>9 - MR-1 DEFECTS</b>	Reason: <b>C - WEAR AND TEAR</b> Comments:	
<b>Task Notes</b>		
HAISM.IBRA 11-14-2022 10:00AM RE LAMP BRAKE INDC LIGHT		
Task: <b>B12-120 - Platform Lighting</b>		Warranty: <b>NO</b>
WAC: <b>12 - REPLACED</b> Work Class: <b>9 - MR-1 DEFECTS</b>	Reason: <b>C - WEAR AND TEAR</b> Comments:	
<b>Task Notes</b>		
HAISM.IBRA 11-14-2022 10:01AM RE LAMP PLAT FORM LIGHT		
Task: <b>B12-120-0120 - Lens Platform Light F/Superliner II Trans-Lite Ap-2465-2</b>		Warranty: <b>NO</b>
WAC: <b>02 - CLEANED</b> Work Class: <b>9 - MR-1 DEFECTS</b>	Reason: <b>C - WEAR AND TEAR</b> Comments:	
<b>Task Notes</b>		
HAISM.IBRA 11-14-2022 10:01AM PLAT FORM LIGHT LENSES NEED TO BE CLEAN		
Task: <b>B12-121 - Headlight</b>		Warranty: <b>NO</b>
WAC: <b>12 - REPLACED</b> Work Class: <b>9 - MR-1 DEFECTS</b>	Reason: <b>C - WEAR AND TEAR</b> Comments:	
<b>Task Notes</b>		
HAISM.IBRA 11-14-2022 10:02AM HEAD LIGHT OUT		
Task: <b>B15-112 - Speed Recoder And Support Assembly</b>		Warranty: <b>NO</b>
WAC: <b>12 - REPLACED</b> Work Class: <b>2 - NON-SCHEDULED</b>	Reason: <b>C - WEAR AND TEAR</b> Comments:	
<b>Task Notes</b>		
HAISM.IBRA 11-14-2022 2:47PM RE PLACED EVENT RECORDER		

# Work Order Detail

Work Order: **MBETCH-2022-6499**

Task: <b>B15-115-0180 - Pn-59 Relay; Slow Pu</b>		Warranty: <b>NO</b>	
WAC: <b>12 - REPLACED</b>	Reason: <b>C - WEAR AND TEAR</b>		
Work Class: <b>9 - MR-1 DEFECTS</b>	Comments:		
<b>Task Notes</b>			
HAISM.IBRA 11-14-2022 2:49PM RE PLACED L RELAY WAS DEFECT FROM NEW CALIBRATION SET.			
Parts	Qty Issued	Iss Price	Tax & Markup
<b>2589839616-1 - RELAY; RELAY SLOW PICK-UP DC PN 59</b>	<b>1.00</b>	<b>373.58</b>	<b>0.00</b>
Removed Serial #:	Serial #:		Total Cost <b>373.58</b>
Task: <b>C17-000 - General Coach Tasks Group</b>		Warranty: <b>NO</b>	
WAC: <b>12 - REPLACED</b>	Reason: <b>C - WEAR AND TEAR</b>		
Work Class: <b>2 - NON-SCHEDULED</b>	Comments:		
<b>Task Notes</b>			
Parts	Qty Issued	Iss Price	Tax & Markup
<b>2470301354-0 - SEAL; SEAL; L/H; F/TOOL LOCKER ON ALL COACHES EXCEPT PULLMANS</b>	<b>2.00</b>	<b>4.07</b>	<b>0.00</b>
Removed Serial #:	Serial #:		Total Cost <b>8.14</b>
<b>2470301355-0 - SEAL; SEAL; R/H; F/TOOL LOCKER ON ALL COACHES EXCEPT PULLMANS</b>	<b>2.00</b>	<b>3.13</b>	<b>0.00</b>
Removed Serial #:	Serial #:		Total Cost <b>6.26</b>
<b>2471401670-0 - SIGN; SIGN; EMERGENCY EXIT/WINDOW REMOVAL INSTRUCTIONS; SINGLE HANDLE</b>	<b>4.00</b>	<b>13.95</b>	<b>0.00</b>
Removed Serial #:	Serial #:		Total Cost <b>55.79</b>
<b>2471602518-0 - BATTERY; BATTERY NI-CAD AMF IHEP &amp; HORIZON (W)</b>	<b>1.00</b>	<b>698.00</b>	<b>0.00</b>
Removed Serial #:	Serial #:		Total Cost <b>698.00</b>
<b>2600RRTC01-1 - CONTROL; TRAIN CONTROL CALIBRATE AND REPAIR</b>	<b>1.00</b>	<b>1,372.58</b>	<b>0.00</b>
Removed Serial #:	Serial #:		Total Cost <b>1,372.58</b>
<b>2699900080-1 - RECORDER; RECORDER EVENT DIGITAL F/ QUANTUM EVENT</b>	<b>1.00</b>	<b>471.44</b>	<b>0.00</b>
Removed Serial #:	Serial #:		Total Cost <b>471.44</b>
<b>3616501311-0 - FIRST AID; FIRST AID KIT 10PW-FRA SEALED KEOLIS</b>	<b>1.00</b>	<b>22.42</b>	<b>0.00</b>
Removed Serial #:	Serial #:		Total Cost <b>22.42</b>
Task: <b>C17-210 - First Aid Kit</b>		Warranty: <b>NO</b>	
WAC: <b>09 - SERVICED</b>	Reason: <b>C - WEAR AND TEAR</b>		
Work Class: <b>2 - NON-SCHEDULED</b>	Comments:		
<b>Task Notes</b>			
JOSEPH.GA 11-14-2022 9:29AM REPLENISH FIRST AID KIT. REPLENISH OUT OF SERVICE DECALS. (4) REPLENISH FLARES. (6)			
Task: <b>C17-250 - Equipment Transport Prep</b>		Warranty: <b>NO</b>	
WAC: <b>06 - INSPECTED</b>	Reason: <b>C - WEAR AND TEAR</b>		
Work Class: <b>2 - NON-SCHEDULED</b>	Comments:		

## Overhead

Small Parts - Labor: **0.00**  
Small Parts - Parts: **0.00**

Tools: **0.00**  
Overhead Costs: **0.00**

Total Overhead Costs: **0.00**

## Work Order Detail

Work Order: **MBETCH-2022-6499**

### Messages

#### Other Open Work Orders

Work Order Number	Type	Status	Scheduled	Reason	Service
Mbetch-2022-6107	Pm	Open			Ctc90-Pm
Mbetch-2022-6132	Repair	Pending		Mup	
Mrdvyd-2020-4906	Repair	Pending		Mup	

Unit Is 50 Days Late For Inspection Service Ctc45-Pm - Due Date 09/25/2022  
Unit Is 8 Days Late For Inspection Service Ac Filter-30 - Due Date 11/06/2022  
Unit Is 845 Days Late For Inspection Service Sand Ctc - Due Date 07/22/2020  
Unit Is 26 Days Late For Inspection Service Coach-Cln-A - Due Date 10/19/2022  
Unit Is 831 Days Late For Inspection Service Coach-Cln-Ex - Due Date 08/05/2020  
Unit Is 831 Days Late For Inspection Service Coach-Cln-C - Due Date 08/05/2020  
Component Automatic People Counter (Apc) Is Under Warranty - Expires 03/15/2025

### WO Notes

#### Comments:

MR1 92 DAY

Internal Parts Cost:	\$3,008.21
Internal Labor Cost:	
Commercial Parts Cost:	\$0.00
Commercial Labor Cost:	\$0.00
Commercial Misc Cost:	\$0.00
Commercial Tax & Markup:	\$0.00
Equipment Usage Costs:	\$0.00
Overhead Costs:	\$0.00

<b>Internal Total:</b>	<b>\$3,008.21</b>
<b>Commercial Total:</b>	<b>0.00</b>
<b>Work Order Total:</b>	<b>\$3,008.21</b>



Keolis

HVAC PM Inspection Sheet  
For Kawasaki, Bombardier, Pullman, MBB Coaches Only

Coach No. 1645

Electrician CN

EMP. ID# 3938

Date: 11-14-22

Carman [Signature]

EMP. ID# [Signature]

HVAC Electrician

- o Replace all Return and Fresh air filters A and B ends
- o Inspect system for leaks
- o Inspect equipment for loose or missing hardware
- o Inspect equipment for proper grounding
- o Run diagnostic check, Verify proper operation of:

Completed ✓

Completed ✓

Completed ✓

Completed ✓

- Cooling

- Check operation of all contactors & overloads

Verified ✓

- Compressor(s), Blowers, & Condenser motors

Verified ✓

- Condenser & Evaporator Coils + Related Equipment

Verified ✓

- Heating

- Contactors Overhead/Floor heat

Verified ✓

- Protective Heaters

- Threshold heaters

Verified ✓

- 900 series Door pocket heaters

Verified NA

- Thermal overload protection

- Kluxons

Verified ✓

- Fault log

- Review fault logs

Completed ✓

- o Conduct Acid test (Kit #QT2000)

Verified Negative ✓

Carman

- o Clean return air grille A and B ends

Completed X

- o Replace Bad air sponge A and B ends

Completed A

- o Clean all air vents along interior lights

Completed X

# KEOLIS

## REFRIGERANT USAGE AND LEAK REPAIR RECORD

The EPA, in accordance with Section 608 of the CLEAN AIR ACT, requires record keeping of refrigerant usage and leak repairs for comfort cooling systems with a charge of 50 pounds or greater. All single level coaches have approximately a 55 pound charge. Kawasaki coaches have a 33 pound charge in each end. Any leak with an annual leak rate greater than 15% of system capacity must be repaired.

Coach 1645 Date 11/4-22 Location BET

Defect NONE

Repair

Amount of Refrigerant recovered from system

Amount of recovered Refrigerant reinstalled in system

Amount of new Refrigerant charged to system

Amount of Refrigerant drawn from stores

Single-level								Bi-level							
55# SYSTEM								VSR3 33# SYSTEM							
#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1	1.8	12	21.8	23	41.8	34	61.8	45	81.8	1	3.0	12	36.4	23	69.7
2	3.6	13	23.6	24	43.6	35	63.6	46	83.6	2	6.1	13	39.4	24	72.7
3	5.5	14	25.5	25	45.5	36	65.5	47	85.5	3	9.1	14	42.4	25	75.8
4	7.3	15	27.3	26	47.3	37	67.3	48	87.3	4	12.1	15	45.5	26	78.8
5	9.1	16	29.1	27	49.1	38	69.1	49	89.1	5	15.2	16	48.5	27	81.8
6	10.9	17	30.9	28	50.9	39	70.9	50	90.9	6	18.2	17	51.5	28	84.8
7	12.7	18	32.7	29	52.7	40	72.7	51	92.7	7	21.2	18	54.5	29	87.9
8	14.5	19	34.5	30	54.5	41	74.5	52	94.5	8	24.2	19	57.6	30	90.9
9	16.4	20	36.4	31	56.4	42	76.4	53	96.4	9	27.3	20	60.6	31	93.9
10	18.2	21	38.2	32	58.2	43	78.2	54	98.2	10	30.3	21	63.6	32	97.0
11	20.0	22	40.0	33	60.0	44	80.0	55	100.0	11	33.3	22	66.7	33	100.0

Alstom Bi-level	
Alte 13# Circuits	
#	%
1	8
2	15
3	23
4	31
5	38
6	46
7	54
8	62
9	69
10	77
11	85
12	92
13	100

Has the system been charged in the past 12 months?

If yes, what was the percentage of system capacity charged?

What is the percentage of system capacity charged for this repair?

Total percentage charged past 12 months

Chris Nolas  
Technician

[Signature]  
Foreman

Copies of this form are to go into the coach file and into the Freon control file.

# MBTA COMMUTER RAIL

## HVAC SYSTEM INSPECTION for Single Level Coaches

Bombardier Coaches 600-653, 1600-1652 (Faiveley A/C System R-22)

Bombardier Coaches 350-389, (Stone Safety A/C System R-22)

MBB Coaches 500-532, 1500-1533 (Sigma A/C System R-22)

Pullman Coaches 200-257 (Stone Safety A/C System R-22)

	SIGNATURE	EMP. ID #
ELECTRICIAN	<u>CN</u>	<u>3038</u>
LABORER	_____	_____
CARMEN	_____	_____
COACH CLEANER	_____	_____

CAR NUMBER: 1645

DATE COMPLETED: 11/14/20

**REQUIRED TOOLS:** Oil Test Kit TA-1, Fluke Multieter with clamp-on Ammeter and thermocouple attachments, Megohmmeter, Electronic Leak Detector, HVAC Manifold Gauges, Bristle Brush, Rubber Mallet, Step ladder

**WARNING:** ALL SAFETY PRECAUTIONS AND EQUIPMENT TAG OUT PROCEDURES MUST BE STRICTLY ADHERED TO. FOLLOW SPECIFIC PROCEDURE INSTRUCTIONS FOR DETERMINING IF EQUIPMENT IS TO BE ENERGIZED PRIOR TO STARTING ANY TEST.

	PASS	FAIL
1. Verify refrigerant level in lower sight glass of receiver tank is visible. If none visible refer to leak detection/repair procedure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Inspect using visual and electronic leak detector for Freon leaks and traces of oil at pipe connections, fittings, valves, compressor, condenser coils, etc.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Vacuum air intake compartment and check evaporator pan and drains for water flow.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Wash return air grill.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Check all motors and mounts for securement and deterioration/damage.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Inspect air flow boots for integrity and proper attachment.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Inspect all contactors, that control compressor, condenser fan, heaters, and blower motors.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. Blow all control boxes with air to clean any debris from them.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. Clean dirt and dust from temperature sensors and temperature control units. Check for proper securement.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. Replace air filters and Bad Odor Sponges.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

PASS      FAIL

11. Megger test compressor, condenser fan, and blower motors for grounds with Megohmmeter. ☒ ☐
12. Test resistance values of all overhead (30-80  $\Omega$ 's), and floor heaters (30-50  $\Omega$ 's). Megger test from heater circuit to ground ( $>2M\Omega$ ). See Chart in appendix A (May through November only) ☒ ☐
13. Test resistance values of all protective heaters (10 to 50  $\Omega$ 's). Megger test from heater circuit to ground ( $>2M\Omega$ ). ☒ ☐
14. Inspect and test operation of air flow switch and overhead heat thermostat (Klixon). ☒ ☐
15. Inspect all motors and record current draw on all phases. ☒ ☐

#### EVAPORATOR BLOWER

MOTOR #1  
 Phase A 1.8  
 Phase B 1.7  
 Phase C 1.7

CONDENSER FAN MOTOR #1  
 Phase A 2.9  
 Phase B 3.1  
 Phase C 2.7

COMPRESSOR MOTOR  
 Phase A 23.8  
 Phase B 22.7  
 Phase C 22.1

#### EVAPORATOR BLOWER

MOTOR #2  
 Phase A 1.9  
 Phase B 1.7  
 Phase C 1.7

CONDENSER FAN MOTOR #2  
 Phase A 3.1  
 Phase B 2.8  
 Phase C 2.8

16. Check for proper rotation and air flow of condenser fan and blower motors. ☒ ☐
17. Check thermal expansion valve bulbs for proper securement. ☒ ☐

#### PUT HVAC SYSTEM ON AUTOMATIC AND CHECK FOR PROPER OPERATION

18. Between Nov 1st through May 1st apply manifold gauges to high and low sides of system, apply diagnostic equipment (TEST BOX). Operate the system and record Freon pressures. ☐ ☐

No. 1 END		No. 2 END	
Line valve THX	Modulation THX	Line valve THX	Modulation THX
<b>Low Side</b>	<b>Low Side</b>	<b>Low Side</b>	<b>Low Side</b>
Suction Pressure _____	Suction Pressure _____	Suction Pressure _____	Suction Pressure _____
Saturation Temp. (from chart) _____	Saturation Temp. (from chart) _____	Saturation Temp. (from chart) _____	Saturation Temp. (from chart) _____
Suction Temp _____	Suction Temp _____	Suction Temp _____	Suction Temp _____
<b>SUPERHEAT</b> _____	<b>SUPERHEAT</b> _____	<b>SUPERHEAT</b> _____	<b>SUPERHEAT</b> _____
<b>High Side</b>			
Ambient Temperature _____		Discharge Pressure _____	

PASS FAIL

19. Charge system as necessary to maintain Freon level 1/2 full on lower sight glass. (Nominal: 270 - 275 psig)

☒ ☐

20. Cover condenser coils with cardboard to cause #2 condenser fan to operate. (Nominal: 250 psig)

START PRESSURE: 250

☒ ☐

21. Restrict compressor suction valve to lower system pressure, until shutdown. (Nominal: 20 to 25 psig)

SHUTDOWN PRESSURE: 5

☒ ☐

REOPEN SUCTION VALVE

22. Block condenser completely to cause system to go into modulation, if necessary heat coach prior to attempting modulation to cause a higher pressure. (Nominal: 380 - 400 psig)

MODULATION PRESSURE: 390

Observe that modulation occurs and continues to operate in modulation until a pressure of 330 +/-10 psig is reached. (When modulation occurs you will see a sudden drop in pressure around 400 psig).

☒ ☐

23. Block condenser completely to cause system to shutdown on high pressure, if necessary heat coach prior to attempting shutdown to cause a higher pressure. (Nominal: 425 - 430 psig)

SHUTDOWN PRESSURE: 425

☒ ☐

**CAUTION:** DO NOT CONTINUE IF PRESSURE GOES ABOVE 435 psig.

NOTE: Do not use discharge valve to raise pressure.

24. Record the loading pressure and the unloading pressure for each head. (place a heat load on the coach and use suction valve)

☒ ☐

1st stage unloader LOADED: 69  
(Nominal: 63 - 65 psig)

1st stage unloader UNLOADED: 52  
(Nominal: 51 - 55 psig)

2nd stage unloader LOADED: 68  
(Nominal: 68 - 70 psig)

2nd stage unloader UNLOADED: 56  
(Nominal: 56 - 60 psig)

25. Check system for moisture at the filter dryer sight glass indicator, if indicator is pink in color, or the sight glass indicates moisture, checked failed. If failed change the filter/dryer.

☒ ☐

26. Between Nov 1st through May 1st take oil sample (Acid Test) use test kit. Follow the oil sample kit instructions to determine condition of the compressor oil and record result.

☐ ☐ ☐ ☒  
MARGINAL PASS FAIL N/A

27. Wash condenser compressor unit and associated piping.

☒ ☐

PASS FAIL

28 Using the DTE (Diagnostic Test Equipment) raise the temperature in the coach so that Full Cool will be called for. ( $>75^{\circ}\text{F}$ )

✓	
---	--

29 Remove the DTE and observe that the coach responds properly moving from Full Cool to Partial Cool. Verify that the modulation valves deenergize. (Approx.  $74^{\circ}\text{F}$ )

✓	
---	--

30 When the Coach gets cooler Reheat is energized. Verify 1st stage OH heat contactors close. (Approx.  $72^{\circ}\text{F}$ )

✓	
---	--

31 The Coach should continue to cool until Partial cool drops out. Verify Compressor contactor is Open. (Approx.  $71^{\circ}\text{F}$ )

✓	
---	--

Reviewed by

FOREMAN



MANAGER



#### APPENDIX A

##### Resistance Chart

200	OH - 1st Stage	75+- 2.5 $\Omega$
	OH - 2nd Stage	47.5+- 2.5 $\Omega$
	FH - 1st Stage	32.5 +- 2.5 $\Omega$
	FH - 2nd Stage	Disabled
300	OH - 1st Stage	75+- 2.5 $\Omega$
	OH - 2nd Stage	47.5+- 2.5 $\Omega$
	FH - 1st & 2nd Stage	52.5 +-2.5 $\Omega$
500	OH - 1st Stage	67.5 +- 2.5 $\Omega$
	OH - 2nd Stage	35 +- 5 $\Omega$
	FH - 1st & 2nd Stage	35 +- 5 $\Omega$
600	OH - 1st Stage	57.5 +- 2.5 $\Omega$
	OH - 2nd Stage	37.5 +- 2.5 $\Omega$
	FH - 1st & 2nd Stage	32.5 +- 2.5 $\Omega$

# EMERGENCY LIGHTING DURATION TEST RECORD

## All Single-Level Coaches

☐

90-DAY PM

☐

180-DAY PM

Date Tested: 11/14/22 Time Test Began: (h) 2 (m) 00 P Time Test Ended: (h) 3 (m) 00 P

Coach #: 1645 Employee #: 3325 Employee Signature: [Signature]

Ensure emergency ballasts have been charged for 30 minutes.

At the end of 60 minutes in operation, the emergency lights were (check one):

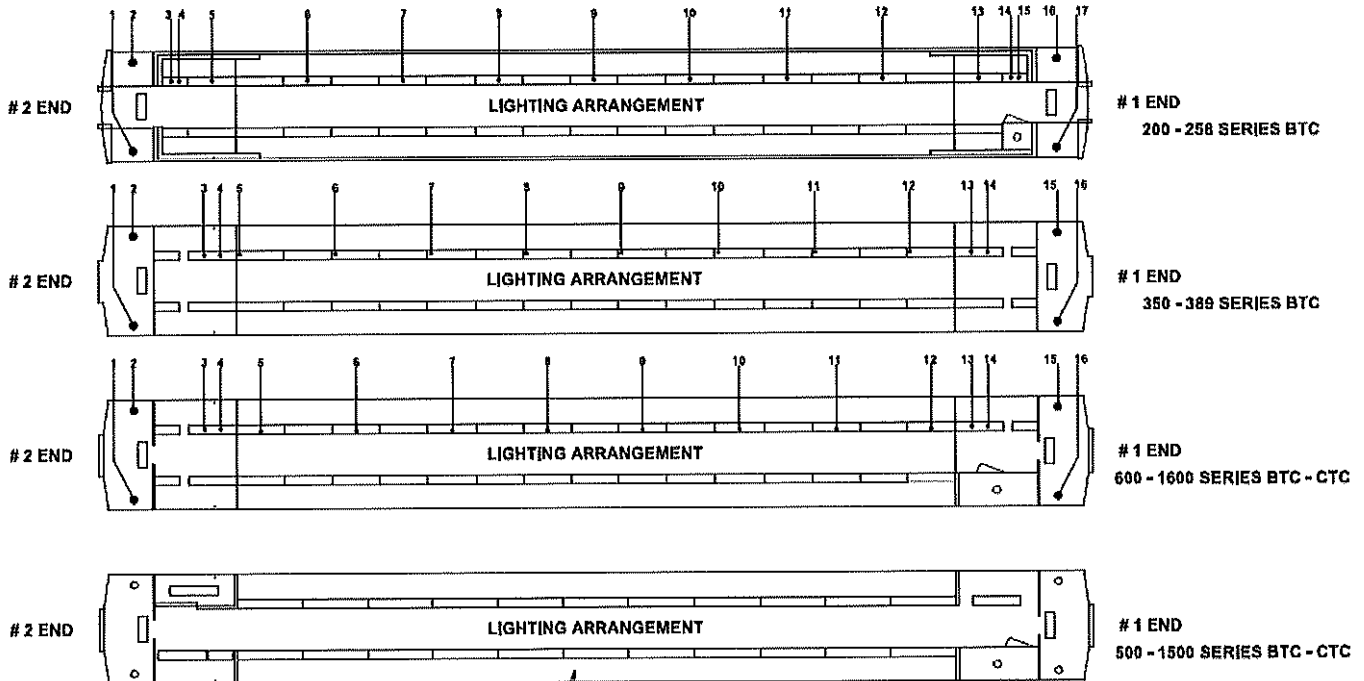
☒

All emergency lighting is functioning properly.

Duration: 60 minutes  
(How long lighting functioned)

☐

Record any failures and ballast replacements on MR1 form.



COMMENTS: \*All Good

NOTE: Refer to instructions for performing tests on Page 2 if needed.

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MAINTENANCE ANALYSIS PROGRAM

COACH BATTERY CELL VOLTAGE

COACH NO. 1645

LOCATION: CH

DATE: 11/14/22

NOTE: OPEN BATTERY KNIFE SWITCH BEFORE MEASURING BATTERY CELL VOLTAGES

REAR LEFT FRONT									
1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
REAR RIGHT FRONT									
1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4

NOTE HERE IF BATTERY WATERING IS NECESSARY

YES ☐  
NO ☒

Each box represents one cell in one battery.  
5 cells per battery  
10 batteries per coach.

INSPECTOR

KCS-ME-FO-210033 rev.1

FOREMAN IN CHARGE

OFFICER



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MBTA COMMUTER RAIL  
COACH WHEEL SLIDE REPORT

VEHICLE NO: 1645

DATE: 11/14/22

LOCATION: CIT

WHEEL SLIDE CONTROL UNIT:



Wheel Slide Control Unit System  
performance test

COMMENTS: \_\_\_\_\_



Electronic panels, car's, wires, test  
lights and fuses



Speed sensor resistance check

#1 982  
#2 977  
#3 974  
#4 965

Signature: \_\_\_\_\_

COMMENTS: \_\_\_\_\_

PNEUMATICS:



A & B valve operation

A OK  
B OK

Signature: \_\_\_\_\_

COMMENTS: \_\_\_\_\_

SPEED SENSORS AND CABLES:



Speed sensor cables



Proper sensor



Speed sensor gap



gear

Signature: \_\_\_\_\_

SEVERITY CODES

A - HOLD CAR  
B - SCHEDULE FOR REPAIR  
C - MONITOR

RECOMMENDED  
SEVERITY CODE

DEFERRED WORK

ITEM



SYSTEM STATUS:



FUNCTIONING

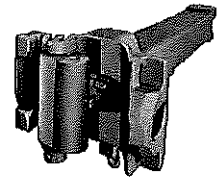
Foreman  
Signature: \_\_\_\_\_



NOT FUNCTIONING

**KEOLIS**

# COACH COUPLER INSPECTION REPORT

Coach #: 1645

For any maintenance and/or replacement

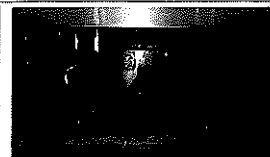
Task	Description	Other reference	Front	Rear
	<b>Inspect Coupler to Include:</b>			
1.	Visually Inspect Coupler for Proper Coupling, damage and Body Integrity	FRA-238.303(e)(3) APTA PR-M-RP-002-98	✓	✓
2.	Gauge Coupler for 31000 34100-1 34100-2A (if required) 32600 34101-4 44250-5	APTA PR-M-RP-002-98	✓	✓
3.	Inspect Coupler lock + lock drop/ and inspect for proper coupling <b>CHECK "TELLTALE" IS CLEAR, NO OBSTRUCTION.</b>	APTA PR-M-RP-002-98	✓	✓
4.	Inspect Coupler Anti-Creep+ Draft Gear for Excessive Wear, Loose or Cracked Welds in Pocket	FRA-238.303(e)(3) APTA PR-M-RP-002-98	✓	✓
5.	Coupler Lock Lift (Special Lock) lever and Operating Rod Eye Clearance.	APTA PR-M-RP-002-98	✓	✓
6.	Inspect Coupler Free Slack	APTA PR-M-RP-002-98	✓	✓
7.	Inspect Coupler Left Level Coupler as Required, Measure Height+ Record on Document# HRU-3	HRU-3	✓	✓
8.	Perform Coupler Carrier Inspection	FRA-238.303(e)(3) APTA PR-M-RP-002-98	✓	✓
	<b>Record all Defects on Form MR1</b>			

Date: 11/14/22Employee: J GaglioneEmployee ID: 2286Employee Signature: [Signature]Foreman: M. T. [Signature]Foreman Signature: [Signature]

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## COACH WHEEL REPORT

Coach #: 1645



## WHEEL MEASURE

Test Date: 11/14/22

POS.	FLANGE HEIGHT [LIMIT: 1 7/16"]	FLANGE THICKNESS [LIMIT: 1"]	RIM THICKNESS [LIMIT: 1 1/18"]	POS.	FLANGE HEIGHT [LIMIT: 1 7/16"]	FLANGE THICKNESS [LIMIT: 1"]	RIM THICKNESS [LIMIT: 1 1/18"]
L1	1 1/16"	1 1/4"	2 7/16"	R1	1 1/16"	1 1/4"	2 3/8"
L2	1 1/16"	1 1/4"	2 3/8"	R2	1 1/16"	1 1/4"	2 3/8"
L3	1 1/16"	1 1/4"	2 5/16"	R3	1 1/16"	1 1/4"	2 5/16"
L4	1 1/16"	1 1/4"	2 7/16"	R4	1 1/16"	1 1/4"	2 3/8"

Comments:

## TOP OF RAIL CLEARANCE HEIGHT

COUPLER HEIGHT (MAX. 34 1/2" MIN. 32 1/2")		PILOT HEIGHT (MAX. 6" MIN. 4")		FLOOR HEIGHT (51 in ± 1.0")	
FRONT	33 1/4"	FRONT	4 1/2"	1R	50 1/2"
REAR	34 3/8"			2R	51 3/4"
				1L	50 1/4"
				2L	51 1/4"

## AIR SPRING VERIFICATION INSPECTION

AIR SPRING HEIGHT				AIR SPRING PRESSURE	NO. 1 END 23 LBS.
L1	9 1/4"	L2	9 1/4"		
R1	9"	R2	9 1/4"		

## SINGLE CAR TEST PRESSURES

ASP		BCP	FULL SERVICE	EMERGENCY
DEFLATED	0	DEFLATED	63	74
AW0	67	AW0	64	77
AW3	85	AW3	72	93

Employee:

Foreman:

Officer:

# Speed and Event Recorder Test

## 1600 Series Coaches With Quantum Recorder

Instructions on the reverse side: Coach #

1645

1. Axle 1 Wheel Size: 32

2. Wheel Sensor Gap checked and is in specified limits: Yes No (Circle One)

Section A		Speed Testing Chart	
Speed to Test	Frequency	Event Recorder Reading	
20 mph	350 Hz	20	mph
40 mph	700 Hz	40	mph
60 mph	1050 Hz	60	mph
80 mph	1400 Hz	80	mph
100 mph	1750 Hz	100	mph

**Section B**

Speed	See Section "A"
Brake Pipe Pressure	Verify 3 pressures from cab gage - 0 psi, 55 psi and 110 psi
Brake Cylinder Pressure	Verify 3 pressures from cab gage - 0 psi, 30 psi and 50 psi
Equalizing Reservoir	Verify 3 pressures from cab gage - 0 psi, 55 psi and 110 psi
Main Reservoir 110 PSI	Verify On/Off - When Main Reservoir is above 110 psi = On (1)
Throttle Positions	Verify Idle, notches 1-8 and emergency loco shutdown = STOP (Test In Idle)
Direction	Verify Forward, Neutral and Reverse
Bell	Verify On/Off - When the Bell is sounding = On (1)
Horn	Verify On/Off - When the Horn sounding = On (1)
Headlights	Verify On/Off - When Headlights are Dim or Bright = On (1)
Wheel Slide	Verify On/Off - When In Wheel Slip = On (1) Energize Pin 10T Trainline- Pin.
PCS	Verify On/Off - When In a PCS (Power Knockdown), = On (1)
Alerter Penalty	Verify On/Off - When in a Alerte Penalty = Off (0)
Cab Signal Power	Verify On/Off - When Cab Signal is powered up = On (0)
Cab Signal Penalty	Verify On/Off - In a Cab Signal Penalty = Off (0)
ATC Alarm	Verify On/Off - Alarm Sounding = On (1)
Cab Signal Ack	Verify On/Off - Acknowledge Button Pressed = On (1)
Cab Signal Aspects	Verify Restricting, Approach, 45, Clear, SCCO C/O when cut out and Non Cab for Non Cab Territory Mode
Cab Signal Type Is	Should show "4" for a 4 aspect Cab Signal System
SCCO C/O	Verify On/Off - SCCO Cut In = Off (0) SCCO Cut Out = On (1)
Cab Territory	Verify On/Off - Territory = Non Coded (0) Cab Territory = Coded (1)
ACES Overspeed	Verify On/Off - In ACES Penalty = Off (0)
ACES Cutout	Verify On/Off - ACES Cut In = Off (0) ACES Cut Out = On (1)
Wheel Select 1 & 2	Wheel Select 1 = On (1), Wheel Select 2 = Off (0) (status check only)
Axle Select 1 & 2	Axle 1 & 2 = On (1) (status check only)
ACES Status	Should show "ACES Equipped"

3. All Inputs operate as Intended In Section A and B : Yes No (Circle One)

4. Information Downloaded and Verified: Yes No (Circle One)

Electrician Performing Test: Mark Phillips

Employee Number: 10273 Date: 11-14-22

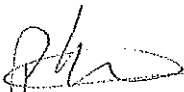
# KEOLIS


## AUTOMATIC TRAIN CONTROL RELAY CHECK

LOCOMOTIVE NO: 1645

DATE: 11-14-22

RELAYS	SERIAL NUMBER	RELAY TEST DATE
OSR	<u>3385242</u>	<u>6-16-22</u>
LRK	<u>B5089171</u>	<u>6-28-22</u>
SP	<u>L903512</u>	<u>6-28-22</u>
LP	<u>L921491</u>	<u>6-16-22</u>
RP	<u>B3286015</u>	<u>6-16-22</u>
PS	<u>B3286048</u>	<u>6-16-22</u>
VZ	<u>B3886062</u>	<u>6-28-22</u>
A	<u>1281911</u>	<u>6-28-22</u>
R	<u>L903127</u>	<u>6-16-22</u>
L	<u>4979248</u>	<u>4-1-22</u>
MR	<u>B4686015</u>	<u>6-28-22</u>

  
Electrician

  
Foreman

08/17/2017

Keolis

PHW-ACES MAP 8

Maintenance Analysis Program

Advanced Civil Speed Enforcement System Inspection

(Instructions On Reverse Side)

1.) Vehicle I.D.: <u>1645</u>	Railroad: <u>MBTA</u>	Periodic <input checked="" type="checkbox"/> Failure <input type="checkbox"/> (Circle One)
Location: <u>BET</u>	Date: <u>11-14-22</u>	Time: <u>7:00</u> <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM
2.) Are the Air Brake Forms In Date?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3.) ACSES Magnet Valve 3 year expiration date OK until next inspection?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
4.) Performed and Passed the Transponder Test?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5.) Visual Inspection		
<input checked="" type="checkbox"/> Antenna OK <input checked="" type="checkbox"/> CCTV OK <input checked="" type="checkbox"/> Speed Sensor OK <input checked="" type="checkbox"/> Roof Antenna OK		
6.) Wheel Diameter Calibration		
Measured <u>32</u> Inputted <u>32</u>		
7.) <input type="checkbox"/> Circuit Board LED Operation OK	8.) Brake Pipe Pressure In Penalty <u>72</u> PSI	
9.) Self-Test Segments (7 Steps)		
1. <input checked="" type="checkbox"/> OK 2. <input checked="" type="checkbox"/> OK 3. <input checked="" type="checkbox"/> OK 4. <input checked="" type="checkbox"/> OK 5. <input checked="" type="checkbox"/> OK 6. <input checked="" type="checkbox"/> OK 7. <input checked="" type="checkbox"/> OK		
10.) <input checked="" type="checkbox"/> Event Log Downloaded OK	11.) <input type="checkbox"/> Data Elements Recorded OK	
12.) <input checked="" type="checkbox"/> Computer Software Version Revision Level - Version T4.5		
13.) <input checked="" type="checkbox"/> Onboard Configuration Check <input type="checkbox"/> Railroad = MBTA <input type="checkbox"/> Locomotive Number = Enter #		
<input checked="" type="checkbox"/> Proper Vehicle Type <input type="checkbox"/> Actual Wheel Diameter <input type="checkbox"/> Max Vehicle Speed Set to 90mph		
<input checked="" type="checkbox"/> Proper Train Type - "C" for all equipment except 3248, 3249 and 904 Switchers which should be "E"		
14.) Software Configuration: Main (7-8) Rev: <u>5</u> Aux IO (0) Rev: <u>0</u> Tach1 (3-4) Rev: <u>4</u>		
Comm (2) Rev: <u>1</u> Config (1) Rev: <u>1</u> ADU1 (1) Rev: <u>1</u> Datalog (Recorder) (3) Rev: <u>0</u>		
15.) Electrician Signature: <u>[Signature]</u>		Foreman Signature: <u>[Signature]</u>
EMP# - <u>16273</u>		EMP# - <u>2437</u>

**KEOLIS**

# Control Coach 1500 and 1600 Cab Signal Test Data Sheet and Procedure

1. CONTROL COACH NO. <b>1645</b>		LOCATION: <b>1381</b>		DATE: <b>11-14-22</b>		TYPE OF INSPECTION (circle one) <input checked="" type="radio"/> Periodic <input type="radio"/> 45 Day <input type="radio"/> Road Failure									
2. VISUALLY INSPECT ALL CAB SIGNAL COMPONENTS <input type="checkbox"/> (CHECK BOX IF NO ISSUES)						4. INSURE RELAY DATES ARE GOOD FOR THE NEXT 60 DAYS YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>									
3. RECEIVER BAR HEIGHT (6-1/2" TO 9-1/2")		ENGINEER SIDE <b>8 1/2</b>		FIREMAN SIDE <b>8 1/2</b>		IF NO, REPLACE THE AFFECTED RELAYS AND RECORD ALL DATES IN THE STEP 5 AND ALL SERIAL NUMBERS IN REMARKS									
5. LIST DATES OF ALL VITAL RELAYS:						A: <b>6-22</b> R: <b>6-22</b> L: <b>4-22</b> MR: <b>6-22</b> VZ: <b>6-22</b>									
OSR: <b>6-22</b>		PS: <b>6-22</b>		SP: <b>6-22</b>		LP: <b>6-22</b>		RP: <b>6-22</b>		LRK: <b>6-22</b>					
6. ATC MAGNET VALVE DATE: <b>2-22</b>		3502 SELF TEST PCB DATE: <b>2-23</b>		PENALTY BRAKE PRESSURE SWITCH DATE: <b>2-22</b>		DATES MUST COMPLY FOR NEXT 60 DAYS									
7. INSULATION RESISTANCE MEASURED IN OHMS WIRE/TERMINAL TO CARBODY GROUND 1 MEGAOHM MAXIMUM RESISTANCE (DO NOT USE MEGGER)						8. SYSTEM VOLTAGE 32VDC +/- 1VDC - TERM 50 & 51 _____ VDC									
KAWASAKI COACH			MBB COACH			BOMBARDIER COACH			FOUND			LEFT			
1			1			1			0L			0L			
2			2			2			0L			0L			
8			8			8			0L			0L			
9			9			9			0L			0L			
14			14			14			0L			0L			
15			15			15			0L			0L			
50			50			50			0L			0L			
51			51			51			0L			0L			
92			88			88			0L			0L			
94			89			89			0L			0L			
9. MASTER RELAY PICKUP CURRENT (1.3-1.6AMPS RAIL CURRENT)						FOUND			LEFT						
1.50						1.50			1.50						
10. PENALTY APPLICATION TIMING						6			0						
11. ACKNOWLEDGER TIMING						6			0						
12. RECEIVER BAR AC VOLTAGE TERMINALS 1&2						LOW*		99.10		ACV		99.10		ACV	
						HIGH		209.9		ACV		209.9		ACV	
13. DEPARTURE TEST SWITCH IN 100HZ POSITION, TERM 1&2						LOW*		99.10		ACV		99.10		ACV	
						HIGH		209.9		ACV		209.9		ACV	
14A. WHEEL DIAMETER OF AXLE 2						32			32						
14B. WHEEL WEAR SETTING						32			32						
15. CONDITION OF ALL ASPECT AND ADU LIGHTS AND ALARM <input type="checkbox"/> OK <input type="checkbox"/> REPLACED AND/OR REPAIRED															
16. SPEED GOVERNOR BOARD PART AND SERIAL NUMBER USED ON THIS COACH						P/N <b>2451653201</b> S/N <b>0390089</b>									
17. DECODING RELAY CURRENT WITH 2 AMPS IN RAIL (LOOP)						MINIMUM OF 48 MA.			FOUND			LEFT			
"A" RELAY IN 180 CODE						65 MA.			65 MA.						
"R" RELAY IN 120 CODE						65 MA.			65 MA.						
"L" RELAY IN 75 CODE						65 MA.			65 MA.						
18. DELAY TIME (FROM CHANGE OF CODE TO SOUNDING OF ALARM)						FOUND			LEFT						
180 CODE TO 120 CODE						4 SEC.			4 SEC.						
120 CODE TO 75 CODE						4 SEC.			4 SEC.						
75 CODE TO STEADY						2 SEC.			2 SEC.						
19. OVERSPEED TRIP POINTS						FREQUENCY (HZ)			MPH						
						CODE		FOUND		LEFT		FOUND		LEFT	
"A" RELAY IN 120 CODE						STEADY - WHITE/RED		391		391		21		21	
"A" RELAY IN 75 CODE						75 CODE - YELLOW		560		560		31		31	
"R" RELAY IN 75 CODE						120 CODE - YEL/GRN		814		814		46		46	
20. TRAIN CONTROL CUT-OUT SEAL NUMBER <b>080311</b>						180 CODE - GREEN		1610		1610		91		91	
EVENT RECORDER CUT-OUT SEAL NUMBER <b>N</b>						NON CAB TERRITORY		1406		1406		80		80	
TRAIN CONTROL COVER SEAL NUMBER OR LOCK <b>10C11</b>															

21. PERSON CONDUCTING THE TEST:

SIGNATURE: TITLE: **P/EC L.R. CAN**

**For "Failure Tests", Fax completed document to 617-222-8540 with an explanation of the failure in the comments section of the back side of this document.**

# KEOLIS

## AUTOMATIC TRAIN CONTROL RELAY CHECK

LOCOMOTIVE NO: 1645

DATE: 11-14-22

RELAYS	SERIAL NUMBER	RELAY TEST DATE
OSR	<u>3385242</u>	<u>6-16-22</u>
LRK	<u>B5089171</u>	<u>6-28-22</u>
SP	<u>L903512</u>	<u>6-28-22</u>
LP	<u>L921491</u>	<u>6-16-22</u>
RP	<u>B3286015</u>	<u>6-16-22</u>
PS	<u>B3286048</u>	<u>6-16-22</u>
VZ	<u>B3886062</u>	<u>6-28-22</u>
A	<u>1281911</u>	<u>6-28-22</u>
R	<u>L903127</u>	<u>6-16-22</u>
L	<u>4979248</u>	<u>4-1-22</u>
MR	<u>B4686015</u>	<u>6-28-22</u>

  
Electrician

  
Foreman