

DOCUMENT CONTROL SHEET

BOMBARDIER
the evolution of mobility

UNIT#
263

INSPECTION TYPE: **3M**

pick from drop
down list

DATE IN:	12/12/2014
FINISHED:	12/12/2014

WORK ORDER # ECMS02 2014 1352

RECEIVED DEC 16 2014

RECENT WHEEL MEASUREMENTS

Wheel #	Flange Ht.	Flange Th.	Rim Th.
1	18	2	30
2	18	2	30
3	18	3	31
4	18	2	31
5	18	2	30
6	18	2	30
7	18	2	29
8	18	2	28

RECENT DEFECTS TO INSPECT

CAPITAL PROJECTS COMPLETED

VESTIBULE CURTAINS INSTALLED CORRECTLY & GOOD CONDITION

DATE

YES

12/12/14

ALL TASK ITEMS SIGNED OFF

WHEEL DATA ATTACHED

DATE

YES

12/12/14

HORN TEST COPY ATTACHED (*)

N/A

EVENT RECORDER DOWNLOAD AND HARD COPY ATTACHED (*)

N/A

ATS DOCUMENTATION AVAILABLE (*)

N/A

WINDOW PULL TEST DATA ATTACHED

N/A

SUPERVISOR SIGN OFF:

DATE:

12/12/14

omotives & cab cars

REVIEWED BY:

DATE:

12/15/14

Report Date/Time: 12/12/2014 15:56

User: MARTINEZH

PM ORDER

X

Work Order ECMS02-2014-1352

Work Order ECMS02-2014-1352
Opened by: MARTINEZH

Equipment ID SCAX263 OWNED
2010 ROTEM COACH STAINLESS
License No
Serial No NA SCAX263
In Service 04/10/2012
PM Class COACH
COACH
Dept 2300
EQUIPMENT MAINTENANCE
Asset ID
Contact

Datetime In 12/12/2014 15:54
Datetime Due 12/12/2014 16:24
Est Complete
Current Life
Meter 1 0 0
Meter 2 0 0
Priority 1 30 MINUTES
Employee ID

Parking Stall
Reference Order
Account ID 100000-1.16.55-50421 SHOP OPERATIONS
Tax Code
Est Hours 0.00
Warranty Exp Date 11/19/2012
Equip Status
Hat Number

X

Leave Work Order

PM Service 90C-CC

Assigned Shop ECMS02

No next PM service info: this PM order is for an inspection

Comments



Notes

12/19/14

METROLINK/90 DAY INSPECTION COACH/CAB CAR

Work Order Number: _____

Date Work Order Opened: _____

<u>Task ID</u>	<u>Description</u>	<u>Completed by:</u>
	<u>CAR SERVICING</u>	
C-C 101 SRT-45"	<p>Dump, sanitize, service and water car.</p> <p>Empty and sanitize toilet retention tank.</p> <ol style="list-style-type: none">1. Open wheel skirts at BL corner.2. Remove cap from the 1" water-intake pipe.3. Remove cap from the 3" ball valve and connect dumping hose to ball valve.4. Open ball valve dumping contents in holding tank into sewer.5. Connect jet-fog nozzle to the 1" water intake pipe and connect a fresh water hose to the other end of the jet-fog nozzle.6. Open water supply allowing water to flow into water-intake tank for 5 to 10 minutes.7. Close ball valve.8. To remove large solid object from waste holding tank, remove hexagon nuts to remove the flange plate and gasket to gain access to holding tank.9. Pour 1/2 gallon of bleach down toilet and flush.10. Open outside water supply and fill waste-holding tank until water reaches top of flapper.11. Allow water in waste holding tank to stand for 30 minutes.12. Open ball valve allowing contents to drain into sewer.13. Close ball valve, disconnect dump hose from ball valve, and install cap onto ball valve with cam locks locked. Ensure chain is attached to the cap and secured to the car.14. Remove jet-fog nozzle from 1" water intake pipe, disconnect hose, and reinstall cap onto water-intake pipe.15. Close and latch wheel skirts. <p>Sanitize and fill potable water tanks.</p> <ol style="list-style-type: none">1. Open wheel skirts at BL corner.2. Remove protective cap and connect bleach-filling adaptor to the water-fill connection and connect fresh-water hose to the other end of the adaptor.3. In plumbing compartment, open drains valves for the 39 & 22 gallon tanks and drain tanks to approximately 1/2 full. (Drain pipes are located adjacent to jet-fog nozzle.)4. Pour 1/4 gallon of bleach into bleach-filling adaptor.5. Fill both water tanks to capacity.6. Close pressurization valve by turning:<ol style="list-style-type: none">a) the air cut-off valve to the close position.b) the overflow vent valve to the open position.7. Allow 30 minutes for adequate sanitation.8. Drain and flush tanks until proper "ph" level has been reached.<ol style="list-style-type: none">a) test water using white color "ph" testing paper at drinking fountainb) proper "ph" level is reached when white test paper turns to a light gray.9. After proper "ph" level is reached, close drain valves for the water tanks.10. Disconnect bleach-filling adaptor. Apply the protective cap ensuring it is properly secured.11. Open the air cut-off valve and close the overflow vent valve.12. Close and latch wheel skirts. <p>Replenish biocide disinfectant.</p> <p>Connect a rubber hose to the drain/vent connection placing opposite end of hose in a 5 gallon container beneath overflow outlet. Connect quick disconnect fitting to biocide fill connection and fill the 20 gallon tank. When full, solution will pour out of the biocide drain/vent connection. Set biocide counter, located in plumbing compartment to zero.</p>	SRT [Redacted] SRT [Redacted] SRT [Redacted]

Task ID Description

Completed by:

Under Frame Inspection

C-C 104 SRT-30" Inspect wheels and record wheel measurements.



Inspect wheels for defects.

Following are condemning conditions involving wheels. Report any defective condition found to your supervisor regardless of severity.

Flat spots	A single flat spot that is 2-1/2 inches or more in length, or two adjoining spots that are each two or more inches in length.
Gouge or chip in the flange	Gouge or chip that is more than 1-1/2 inches in length and 1/2 inch in width.
Broken rim	If the tread, measured from the flange at a point 5/8 of an inch above the tread, is less than 3-3/4 inches in width.
Shelling	A shelled-out spot 2-1/2 inches or more in length, or two adjoining spots that are each two or more inches in length.
Seam running lengthwise	A seam running lengthwise that is within 3-3/4 inches of the flange.
Tread worn hollow	A tread worn hollow 5/16 of an inch or more.
Crack or break	A crack or break in the flange, tread, rim, plate, or hub.
Loose wheel	Any indication the wheel may be loose. Look for rust where the axle contacts the hub.

Remove old torque seal and apply fresh torque seal extending from wheel hub to outside axle face.

car 263

Record wheel measurements.

	Flange Ht.	Flange Th.	Rim Th.
Go-No-Go Gauge	Max. 1-1/2"	Min. 1"	Min. 1"
Finger Gauge Readings	24	8	16
Wheel No.1	<u>18</u>	<u>2</u>	<u>30</u>
Wheel No.2	<u>18</u>	<u>2</u>	<u>30</u>
Wheel No. 3	<u>18</u>	<u>3</u>	<u>31</u>
Wheel No. 4	<u>18</u>	<u>2</u>	<u>31</u>
Wheel No. 5	<u>18</u>	<u>2</u>	<u>30</u>
Wheel No. 6	<u>18</u>	<u>2</u>	<u>30</u>
Wheel No. 7	<u>18</u>	<u>2</u>	<u>29</u>
Wheel No. 8	<u>18</u>	<u>2</u>	<u>28</u>

Serial Number
<u>00434</u>
<u>00431</u>
<u>00218</u>
<u>00217</u>
<u>00528</u>
<u>00527</u>
<u>00504</u>
<u>00216</u>

Notify Supervisor if readings are at these points:

Flange Ht.	Flange Th.	Rim Th.
22	5	18

Action Taken:

Wheels Trued

Changed Wheels

For Service

Supervisor



Task ID Description

Completed by:

C-C 105
SRT-30"

Inspect tread and disc brake units, record disc measurements.

Inspect tread brake units and brake shoes.

Inspect for loose or missing hardware. Lubricate the hanger and brake head bolts. Lubricant Tread brake reservoir of the body is to be filled with lithium molybdenum disulfide-base grease (WABCO M-7672-01).

Inspect disc brake units and check fluid level.

Inspect for loose or missing hardware and signs of rust. Air leaks at disc brake unit must be corrected. With the brakes released, check for any apparent brake fluid leaks around the disc brake unit reservoir castings.

Check disc brake fluid level:

- a) Insert a bar or lever between the tongs and retract the piston push rod all the way back. Block in this position.
- b) Remove dirt and completely clean top cover before removing.
- c) Loosen four bolts and remove the top cover, being careful not to contaminate the fluid with foreign material.
- d) If the screen can be seen above the fluid level, add clean Dow Corning Silicone Brake Fluid No. Q2-1141, from a clean container so the fluid level is 1/4 inch below the top of the reservoir.

Disc Brake Fluid Added: Yes No

NOTE: If fluid is added more than twice a year, the actuator is malfunctioning and requires replacement.

Lubricate swivel pin and bushing with lithium molybdenum disulfide-base grease (WABCO M-7672-1). Use a grease gun on the swivel bracket grease fitting.

Inspect and record brake disc measurements.

Renew disc:

- a) if surface cracks are more than 2-1/2 inches long (either side) or are within 3/8 in of the outer edge.
- b) if the disc shows any score marks or there are any protrusions.
- c) if there are nicks on the outer edge of the disc longer than 3/4 inch wide radially.
- d) if there are cracks in the hub.

Ensure the bolts securing the disc are not loose, broken or missing and the locking tabs are in place and properly bent to prevent movement of the bolt. Cracks in the torque seal may indicate bolt movement.

Renew disc if the thickness of the disc (face to face) is less than 3.34 inches thick, or if the thickness of an individual face is less than .665 in.

Remove old torque seal and apply fresh torque seal to each bolt that extends from bolt head to disc hub.

Take three (3) measurements approximately 120 degrees apart and 2-1/2" in from the disc edge.

Task ID Description

C-C 105

SRT-30"

Record Brake Disc Measurements

Axle Serial No. 015



Disc Wheel 1 Measurements

	1st	2nd	3rd	Smallest Value	Disc Renewed
Outside Wall Thickness	808	798	827	798	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Inside Wall Thickness	813	790	795	790	
Face-to-Face	3475	3454	3495	3454	

Disc Wheel 2 Measurements

Axle Serial No. 015

	1st	2nd	3rd	Smallest Value	Disc Renewed
Outside Wall Thickness	815	823	855	815	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Inside Wall Thickness	869	843	836	836	
Face-to-Face	3553	3533	3542	3533	

Disc Wheel 3 Measurements

Axle Serial No. 068

	1st	2nd	3rd	Smallest Value	Disc Renewed
Outside Wall Thickness	861	830	826	826	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Inside Wall Thickness	787	810	865	787	
Face-to-Face	3574	3570	3593	3570	

Disc Wheel 4 Measurements

Axle Serial No. 068

	1st	2nd	3rd	Smallest Value	Disc Renewed
Outside Wall Thickness	893	877	863	863	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Inside Wall Thickness	838	851	888	838	
Face-to-Face	3651	3661	3654	3651	

Disc Wheel 5 Measurements

Axle Serial No. 029

	1st	2nd	3rd	Smallest Value	Disc Renewed
Outside Wall Thickness	855	846	851	846	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Inside Wall Thickness	837	844	846	837	
Face-to-Face	3573	3557	3594	3557	

Disc Wheel 6 Measurements

Axle Serial No. 029

	1st	2nd	3rd	Smallest Value	Disc Renewed
Outside Wall Thickness	830	827	822	822	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Inside Wall Thickness	831	815	857	815	
Face-to-Face	3523	3514	3521	3514	

Task ID Description

Completed by:

C-C 105 Disc Wheel 7

Axle Serial No. 040

SRT-30" Measurements

	1st	2nd	3rd	Smallest Value	Disc Renewed
Outside Wall Thickness	821	808	867	808	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Inside Wall Thickness	863	847	851	847	
Face-to-Face	3598	3581	3587	3581	

Disc Wheel 8

Axle Serial No. 040

Measurements

	1st	2nd	3rd	Smallest Value	Disc Renewed
Outside Wall Thickness	855	838	837	837	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Inside Wall Thickness	872	892	860	860	
Face-to-Face	3585	3592	3632	3585	

Car Interior

C-C 137 Inspect, test and lubricate handbrake:

SRT-10" Inspect handbrake rigging for wear and free movement. Lubricate lever fulcrum pins. Adjust cable slack, if required, and ensure slack adjuster is secure.



Cab Car Interior

CC-C 139 Inspect & test air gauges.

SRT-10" Equalizing and brake pipe pressure within 3 lbs. Ensure equalizing reservoir needle and brake pipe needle are within 3 lbs. of each other. Increase and decrease equalizing reservoir pressure and note brake pipe pressure responds. Test air brake gauges. Verify accuracy of each needle (4) using a CO2 tester at 100 lbs. of pressure.

NA

Test air brake-safety controls-warning devices-controller. Check operation of 26B automatic brake valve it functions as intended in all positions.

CC-C 141 Check ATS-Inspect/download event recorder.

SRT-30" Verify ATS receiver is properly secured and the washboards are aligned. Perform a slap test. Perform ATS test and complete form SMP 8. Inspect, download, reset time & seal event recorder.

NA

CC-C 142 Test and record Db level of upper & lower horns & test bell.

SRT-20" For Cab Cars operating in the "LEAD" position, use a sound level meter, within 1 yr. of calibration, position meter 100 ft. forward of locomotive with microphone positioned above top of rail 4 ft. for the lower horn and 15 ft. for the upper horn. Adjust horn to produce a sound level of 100 dB(A). Minimum sound level of 96dB(A) and a maximum of 110dB(A) must be produced. Sign and attach sound level printout to cab car maintenance file.

NA

Upper Horn

Lower Horn

<u>Task ID</u>	<u>Description</u>	<u>Completed by:</u>
CC-C 148 SRT-15"	Stencil PM date on handbrake. Complete FRA Blue Card.	NA
CC-C 149 SRT-5"	Test operation of Cab area floor heater. Verify condition of reset button and functionality	NA
<u>Restroom</u>		
C-C 153 SRT-20"	Renew coalescent - particulate and water cooler filters. Remove and clean threaded polycarbonate bowl and renew coalescent and particulate filter elements. Close valve to isolate water cooler from supply tank. Depress valve until water flow ceases. Disassemble threaded body of filter shell and replace cartridge.	[Redacted]

Review & resolve all outstanding defects.

Review SMP 129, SMP 100 and outstanding defect reports. All defects recorded and those found during inspection must be corrected before car or cab car is released for service.

NOTE: All defects must be corrected before releasing vehicle for service.

Supervisor Reviewing Work Order:

Work Order Finished:

Manager Reviewing Work Order:

Work Order Closed:

[Redacted Signature] _____
Supervisor

[Redacted Signature] _____
Manager

12/12/14

12/18/14 _____
Date