Loco # 873

METROLINK

Southern California Regional Rail Authority
Equipment Condition Report

SMP 100

NO. B224694

LOCOMOTIVE NUMBER: S.C.A.X. – 873 POSITION IN CONSIST: LEAD

USE SEPARATE REPORT FOR EACH UNIT IN CONSIST.

Each locomotive unit shall be inspected in accordance with CFR title 49 parts 229.21, and 236.587.
Cab Card SMP 101 must be signed.

NAME OF EMPLOYEE MAKING DAILY INSPECTION	EMPLOYEE #	OCCUPATION	PLACE	DATE	TIME
[redacted]	1018	MECH	CMF	1-26-05	4:00

SEAL NUMBERS

ATS	0166646	SPEEDOMETER OVERSPEED	0140708
ALERTOR	0140708	DOOR OVERRIDE	0160873
ZERO SPEED	0134202	EVENT RECORDER	0134205
HORN	0164585		

ATS DEPARTURE TEST

NAME OF EMPLOYEE MAKING ATS TEST	EMPLOYEE #	OCCUPATION	PLACE	DATE	TIME

CONDITION OF EQUIPMENT

SPEED INDICATOR	CROSSING BELL
H.E.P.	HORN
DYNAMIC BRAKES	ATS
BRAKES & RIGGING	ALERTOR
RADIO	WIPERS
SANDERS	MAIN RESERVOIR PRESSURE PSI
BRAKE PIPE PRESSURE PSI	

FAILURES EN ROUTE	ENGR. INIT.	REPAIRED BY

THE ABOVE WORK HAS BEEN PERFORMED, EXCEPT AS NOTED, THE REPORT IS APPROVED, AND THIS UNIT IS AVAILABLE FOR SERVICE.

SIGNATURE OF EMPLOYEE APPROVING UNIT FOR SERVICE	OCCUPATION	PLACE	DATE	TIME

SIGNATURE OF LOCOMOTIVE ENGINEER	LOCATION	DATE	TIME

SMP 100

USE REVERSE SIDE FOR ADDITIONAL COMMENTS OR DETAILS
ORIG. – MECHANICAL MAINTENANCE FACILITY / COPY – RETAINED AT ENGINES INITIAL TERMINAL

METROLINK

Southern California Regional Rail Authority
Class 1 Brake Test and Inspection Certificate

SMP 1173

☐ **An Initial Terminal Air Brake Test has been satisfactorily performed per CFR49 Part 232.12 for freight/work trains.**

BE COMPLETED AND SIGNED BY PERSON(S) PERFORMING AIR BRAKE TEST AND INSPECTION

Class 1 Brake Test has been satisfactorily performed as required by CFR 49 Part 238.313

Loco #	Loco #	Loco #	Cab Car #	Number of Cars
873	—	—	623	3

Date	Time	Location	Name	Employee No.
1.26.05	400	CMF	[redacted]	1018

Following equipment has received an Exterior and Interior Calendar Day Mechanical Inspection as required by CFR 49 Part 238.303 and 238.305.

Car #	Car #	Car #	Car #	Car #	Car #	Car #	Car #	Car #	Car #
177	148	623							

Exterior Inspection performed by:				
[redacted]	1018	1.26.05	400	CMF
Name	Employee No.	Date	Time	Location

Interior Inspection performed by:				
[redacted]	1018	1.26.05	400	CMF
Name	Employee No.	Date	Time	Location

Communications System: ☑ Operative ☐ Inoperative **Train Set for:** ☑ **Graduated Release** ☐ **Direct Release**

TO BE COMPLETED AND SIGNED BY INBOUND ENGINEER (AMT-3, 14.4):

Locomotive #(s) or Cab Car #	Date	Time	Number of Cars	Condition of Brakes	Engineer's Signature
				☐ Acceptable ☐ Unacceptable	
				☐ Acceptable ☐ Unacceptable	
				☐ Acceptable ☐ Unacceptable	

METROLINK/DAILY INSPECTION SHEETS

Location: CUPR Date: 1-25-05 Time: [redacted]

Locomotive #: 873 Car #: 177 - 148 Control Cab #: 623

Inspection has been performed per CFR49, parts 229 & 238. Signature: [redacted]

LOCOMOTIVE - CLEANING

1.0 CAB

1.1 Pick up all debris, empty trash container, and replace trash bag.
1.2 Clean windshield (in & out), windows (in & out), and sweep floors.
1.3 Replenish drinking water and paper towels.

2.0 ENGINE ROOM & HEP

2.1 Pick up debris and rags.
2.2 Clean walkways, engine sump and light fixtures, and wipe down engine block.

3.0 EXTERIOR

3.1 Remove debris from walkways, and clean nose and fuel tanks as needed.
3.2 Refill locomotive fuel – no matter what level it is, and check sand level & replenish if below 1 foot minimum level.

The above listed tasks have been performed. Signature: [redacted]

LOCOMOTIVE - ELECTRICAL

1.0 CAB (Including Vestibule & Nose Compartments)

1.1 Check blended brakes, TMS penalty brakes and resets.
1.2 Voice test radio.
1.3 Perform ATS tests, and record results on form SMP100 (MAP100).
1.4 Perform ATS "Slap Test".
1.5 Check computer for faults.

2.0 ENGINE ROOM

2.1 Check HEP indicator lights, voltage & frequency
2.2 Check for spare MU & communication jumper cables - make sure they are available on rack.
2.3 Check hand-brake.

EXTERIOR

3.1 Inspect all jumper cables to ensure they are secured & free from damage.

I have performed the above listed tasks. Signature: [redacted]

LOCOMOTIVE - MECHANICAL

1.0 CAB (Including Vestibule & Nose Compartments)

1.1 Check condition of seats, walls, ceiling, floor, windows, & sun visor.
1.2 Check windshield wiper, door mechanisms, horn, bell for proper function.
1.3 Replenish supply of fuses (12) in proper container.
1.4 Check for red flag and first aid kit (compliance & sealed), and for spare B.P. & F.I.R. hoses.
1.5 Check hand brake operation & ensure correct date stenciling.
1.6 Check for proper operation of sanders.
1.7 Perform Class 1 brake test and record on SMP100 (MAP100).
1.8 Make sure that the GPS power supply is in the on position.

2.0 ENGINE ROOM & HEP

2.1 Check oil levels of main engine, HEP engine, air compressor, & governor (if low, determine cause); and bring to full mark.
2.2 Check coolant levels & concentration for main engine and HEP, and bring to full mark.
2.3 Check for fuel, oil, water, and exhaust leaks.
2.4 Check for unusual noises in engine, auxiliary blower, AR15 generator, air compressor, turbo, generator and HEP while running.
2.5 Check air compressor control air system, and drain intercooler and dirt-collector condensate.

3.0 EXTERIOR

3.1 Check condition of body, steps, ladders, walkways, windows, truck safety hangers, brake shoes, and wheels.
3.2 Drain moisture (as required) from main reservoir tank.
3.3 Check brake shoes for proper clearance & alignment (no overlapping), and side bearing clearance.
3.4 Inspect pilot clearance above top of rail (not less than 3" or more than 6").

The above listed tasks have been performed. Signature: [redacted]

All discrepancies found and corresponding corrective actions taken to eliminate them, must be reported on sheet 4 of this document package, noting number of vehicles affected and corresponding discrepancies.

METROLINK/DAILY INSPECTION SHEET

Location: Date: Time:

Locomotive #: Car #: Control Cab #:

CAR - CLEANING

1.0 INTERIOR

1.1 Pick up all debris, empty trash containers, and replace trash bags throughout interior of car.
1.2 Vacuum all carpet areas, floors, seats, in between seats, heater box, and door tracks – and sweep & mop vinyl floors.
1.3 Remove all foreign matter (i.e., gum, scuff marks, finger prints, stains, graffiti, etc.) from doors, tables, walls, seats, etc.
1.4 Clean windows, window-sills, & wind screens.
1.5 Clean and disinfect drinking fountains
1.6 Restock all supplies – literature for holders and drinking cups.

2.0 RESTROOMS

2.1 Dump holding tanks.
2.2 Clean and disinfect toilets, and clean sinks, mirrors,
2.3 Refill potable water tanks.
2.4 Inspect flushing mechanism, and replenish disinfectant tank as required.
2.5 Replenish supply spares (i.e., liquid soap, emergency toilet cleanout kit, toilet paper & paper towels, out-of-service signs.

3.0 CAB

3.1 Clean console, exterior side mirrors (left & right sides) & windows.
3.2 Replenish crew supply of paper towels.

The above listed tasks have been performed. Signature: [redacted]

CAR - ELECTRICAL

1.0 INTERIOR

1.1 Check the condition and function of doors, lights, PA, heating, cooling, and exhaust systems.
1.2 Secure all panel latches.

2.0 CAB

2.1 Check blended brake operations.
2.2 Check TMS penalty brake operation and test resets.
2.3 Voice test radio.
2.4 Check exposed wiring and switches.
2.5 Perform ATS tests and record results on form SMP100 (MAP100).

EXTERIOR

3.1 Inspect all jumper cables to ensure they are secured and free from damage.

The above listed task have been performed. Signature: [redacted]

CAR - MECHANICAL

1.0 INTERIOR

1.1 Check all door mechanisms and drinking fountains for proper function, and for properly secured cabinet panels & ceiling hatches.
1.2 Check condition of all weather stripping, seats, walls, ceiling, flooring, and carpeting.
1.3 Ensure that first aid kits, fire extinguishers, emergency tools, and flashlight are properly secured & sealed.
1.4 Ensure the required decals and markings for proper location, completeness, and legibility.

2.0 RESTROOMS

2.1 Check condition of all sinks, toilets, soap dispensers, towel dispensers, and waste disposal containers.
2.2 Check for proper operation of sinks & toilets and adequate water seal.

3.0 BETWEEN CARS

3.1 Check condition of walk plates, curtains, and for properly secured safety bars.
3.2 Inspect handbrake.

4.0 CAB

4.1 Check condition of side view mirrors (left & right), and sun visor.
4.2 Replenish supply of fuses (12) in proper container.
4.3 Check for red flag, compliant first aid kit (in addition to one in B-end of coach), and spare communication and electrical cables.
4.4 Perform Class 1 brake test and record on form SMP100 (MAP100).

5.0 EXTERIOR

5.1 Check condition of car body exterior, steps, windows, lights, skirts, under carriage, brake pads & shoes, brake rigging, wheels, truck frames, air bags, ground straps, and discs.
5.2 Drain moisture (as required) from main reservoir tank.

The above listed task have been performed. Signature: [redacted]

NOTE: All discrepancies found and corresponding corrective actions taken to eliminate them, must be reported on sheet 4 of this document package, noting number of vehicles affected and corresponding discrepancies.

EMD LRC LINE 92 DAY INSPECTION LOCOMOTIVE

Location: ECMS01-2004-852 873 Date Shopped _____

Task ID	Description	Completed By:

Cleaning

L-L1001 Wash exterior of locomotive.

Completely wash locomotive using high pressure washer and hand brush including: car body, fuel tank, trucks, and walkways. Clean "eye brow" area of F59PHI.

L-L1002 Clean cab.

Completely clean inside of cab by washing walls, ceiling, control stand, observers side desk and seats by hand. Remove graffiti. Sweep and mop cab floor. Clean windshield, side windows and mirrors. Clean dirt and debris from door tracks.

L-L1003 Clean engine, including vee.

Using high pressure washer, clean main engine including vee and exhaust manifold, walkway areas, accessory rack, air compressor and HEP area.

L-L1004 Drain retention tank.

Drain contents into an approved waste container.

L-L1005 Drain & clean main engine, alternator, and HEP sumps.

Clean main generator pit aspirator. With retention tank open, clean all sumps, removing rags and other debris. Close drain when completed and apply cap.

L-L1006 Clean nose compartment.

Wash walls and ceiling area. Sweep and mop floor. Clean dirt and debris from door tracks.

Running Items

Exterior

L-C 1001 Inspect MU, communication, HEP cables & receptacles.

Inspect condition of MU, Communication, and HEP cabling. Inspect condition of insulation and for signs of a stretched cable. Inspect receptacle cover, spring, rubber seal, pins, and mica insulating plate. All three mounting screws must be in place and tight. Remove dirt and debris from receptacle using air pressure using an electrical cleaner if needed.

L-C 1002* Inspect & gauge knuckle & coupler & check slack.

Gauge coupler, checking, Guard Arm Distortion, Contour Wear, Knuckle Nose and Knuckle Stretch. Draft gear components, pocket and coupler pin must be inspected for slack or wear. Using a long bar between the coupler horn and striker face and prying outward, measure the distance between the coupler horn and the striker face. Then move the coupler in as far as possible towards the draft gear and again measure the distance between the coupler horn and the striker face. The distance between the two is the amount of free slack in the draft gear and coupler arrangement. Total slack must not exceed 1/2".

Total slack Front 0" Rear 1/16"

Finished 12/21/04

JAN - 5 2005

Completed By: [redacted]

L-C 1003 Check rod eye & lock lift lever clearance.

Inspect all operating lever mechanisms for loose mounting or bracket bolts bent or damaged and damage to the operating lever. On F59PHI locomotives, center the coupler, close and lock the knuckle. A minimum of 1-3/4" should exist between the operating rod eye and the link that is connected to the lock lift of the coupler. This slack is necessary to prevent unintentional uncoupling of the lever during operating conditions. The front of the rod eye should be no more than 3-3/4" forward of the coupler horn face.

L-C 1004* Check & record coupler and front pilot height.

[redacted]

Check and record the following measurements:

	Front	Rear	Clearance Limits
Coupler Height Above Top of Rail	33"	34½"	31-1/2" Min. 34-1/2" Max.
Front Pilot/Plow Height	Left 4½"	Right 4½"	3" Min. 6" Max.

L-C 1005 Visually inspect trucks & running gear.

[redacted]

1) Inspect truck frame for cracks in stress areas that may effect structural integrity.

2) Check for minimum 3/8" clearance between spring plank and safety hanger.

3) Max. wear of swing hanger pin/bushing is 1/8".

4) Check for a bent, cracked or broken swing hanger.

5) Clearance between upper and lower halves of the bearing block is minimum 1/8".

6) Check for broken or weak elliptical springs. A gap of 1/8" or greater underneath the ends of the second largest leaf indicates weak elliptical springs.

7) Inspect for broken or compressed truck coil springs.

8) Inspect shock absorber, yaw damper and mounting for the following defects:

- Broken or missing mounting bolts.
- Cracked or broken mounting bracket.
- Damaged rubber bushing.
- Damaged or dented casing.
- Leaking clearly formed droplets of oil.

9) Inspect running gear for the following conditions:

Levers, rods, brake beams, and hangers must not be worn more than 20% of its cross-sectional area, cracked, broken or missing.

10) Replace phenolic wear plate on brake shoe guide if worn to 1/8" or less.

11) Inspect slack adjuster assembly. Ensure locking pins are in place and properly secured.

12) Visually inspect journal bearing for overheating, excessive lubricant leakage or defective seals, cracked or broken cups, end caps, or adapters.

13) Ensure end cap retainer clips are in proper condition.

14) Inspect for loose or broken pedestal liners. Total clearance between journal bearing adaptor and pedestal liner is 1/4" max. (Both sides added together).

15) Inspect and ensure proper securement of journal box binder.

16) On F59PH, inspect axle generator and cabling for proper securement.

Completed By:

[redacted]

L-C 1006 . **Check side bearing clearance.**

Minimum side bearing clearance is 1/32" not to exceed 1/4" on each side or a total of 1/2" on both sides.

L-C 1007 **Inspect fuel tank.**

Inspect fuel tank bolts and ensure tank is not in contact with safety support. Inspect fuel fill and hoses. Inspect condition of sight gauge, dial gauge and dust cap. Compare gauges for consistency.

[redacted]

L-C 1008 **Ensure proper operation of all exterior lights**

1) Front & rear headlight (all positions).
2) Auxiliary lights (steady state and flashing).
3) Marker Light(s)
4) Emergency Red Light.
5) Front and rear walkway light (F59PH).
6) Step lights and ground lights.

[redacted]

L-C 1009 **Inspect vertical & horizontal handrails and steps.**

Inspect condition and ensure proper clearance of all vertical handholds and horizontal handholds. Inspect condition of steps.

1) Vertical handholds must provide 2-1/2" of clearance, painted a contrasting color, securely fastened using 1/2" or larger bolts and cannot be cracked or broken.
2) Horizontal handholds must provide 2" of clearance.
3) Steps must be securely fastened using 1/2" or larger bolts, cannot be broken or cracked, with the outer edge having a contrasting color.

[redacted]

L-C 1010 **Inspect car body for damage & loose components.**

Report severe rusting and corrosion to your supervisor. Inspect hinges and pins.

[redacted]

L-C 1011 **Inspect decals & reflectorized tape.**

Replace decals that are faded or discolored. Replace reflectorized tape if deteriorated or pulled away from car body.

1012 **Check condition of all air hoses & valves.**

Check brake pipe, main reservoir, and actuating hoses, and end valves at front and rear of locomotive. Check condition of gladhands and gaskets. Ensure air valves lock into position when open. Check condition of spring assembly. 12/16/04 Upper 8:30 dB 97.

L-C 1013 **Test operation of horn & bell.** Lower 8:28 dB 104.5

Using a sound level meter, within 1 yr. Of calibration, position meter 100 ft. forward of locomotive with microphone 4 ft. above ground at centerline of track.

Minimum sound level of 96db(A) must be registered.
Sign and attach sound level printout to locomotive maintenance file.

[redacted]

L-C 1014 **Check operation of sanders.**

Check operation of front and rear sanders in manual and emergency operation.

L-C 1015 **Check Salem air dryer, humidity indicator & timing cycle.**

Replace humidity indicator if white.
With air compressor pumping, alternating exhaust should occur at 2 min. intervals ± 15 secs.

Ensure air is not discharging from dehydrating unit.

[redacted]

L-C 1016 **Inspect main reservoirs.**

Inspect the air reservoirs for physical damage. Ensure the reservoir mounting bolts are tight and inspect the mounting brackets for cracks.

[redacted]

L-C 1017 **Check operation of main reservoir automatic drain valves.**

Turn the drain valves to manual and drain condensate from #1 and #2 main reservoirs.

Return the drain valves to the automatic position and ensure it is cycling properly.

[redacted]

L-C 1018 **Check operation of emergency fuel shut off buttons.**

Operate emergency fuel shut off button on each side of locomotive and ensure locomotive and HEP engines are shutting down.

L-C 1019 **Check operation of ground relay.**

Induce a ground by using a jumper wire from HV cabling to the car body. Verify operation of audible and visual alarms.

L-C 1020 **Check inertial filter motor.**

Verify inertial filter motor is operating and listen for abnormal noise and vibration.

[redacted]

L-C 1021 **Check brake shoes & adjust piston travel.**

Shoes have minimum 3/8" friction material remaining.

When applied, brake shoes make full contact with wheel thread and are not overriding.

Inspect brake levers, hangers, pins & bushing for loose, missing or worn out components.

Piston travel is sufficient to provide brake shoe clearance when brakes are released.

With brakes applied, piston travel may not exceed 1 1/2" less than total possible piston travel.

[redacted]

L-C 1022 **Check Sanders**

Inspect for missing, broken, loose or misaligned sander nozzles, sander pipes or brackets. Turn on sanders and verify sand is delivered at front and rear of locomotive. Remove clean out pipe plug from sand trap and check if plugged.

[redacted]

L-C 1023 **Power test in forward & reverse. Check controller operation.**

Ensure locomotive loads in forward and reverse noting that load meter indicates loading.

Ensure controller and reverser interlock as intended.

L-C 1024 **Check operation of dynamic & blended brakes.** M-T=723 DC

To test dynamic brake on F59PH locomotives, using the computer, select the option "Meter/IOL" option on the main menu then Dynamic Brake. On F59PHI locomotives, select the option "Data Meter" and the Dynamic Brake on the default screen. Place the dynamic brake handle in #8 or maximum braking and the display panel should indicated: 24T pin - 74V and 875 field amps.

Test dynamic brake interlock by making an automatic application with the independent in the release position and going into dynamic brake. Brakes applied by the automatic application should release and brake cylinder pressure reduce to zero pounds.

To test blended brake, select "Self Test" on the display panel and select blended brake. Follow the prompts to perform the test.

[redacted]

L-C 1025 **Perform brake pipe leakage test.**

Brake pipe leakage must not exceed 3 lbs. per minute.

L-C 1026 **Test air brake, safety controls and warning devices.**

Ensure 30 CDW Automatic Brake Valve functions as intended in all positions. Test actuating (bail-off), graduated release, TMS and emergency with PC function.

Completed By: [redacted]

L-C 1027 Test independent brake.

Apply independent brake in 10 lb. increments and ensure brake cylinder pressure increases and stabilizes. Fully apply independent brake obtaining 72 lbs. brake cylinder pressure. Fully release independent and brake cylinder pressures should reduce to 0 lbs. pressure.

L-C 1028 Check instrument panel, cab, and indicator lights.

Inspect all gauge and panel lights including speed indicator and gauge lights dimmer. Operate push to test feature to verify lamps are working properly.

L-C 1029 Check operation of HVAC.

Using HTR-A/C switch. ensure heat and air conditioner function in all settings.

L-C 1030 Check operation of defrosters.

L-C 1031 Check computer display for faults.

Check computer for logged faults and report to supervisor, faults occurring with last 30 days and uncleared faults.

L-C 1032 Check output using Watt meter and voice test radio only!

L-C 1033 Check for low voltage grounds

Using a test light at battery knife switch when closed, place one lead on the + side of the knife switch and one lead to the electrical cabinet frame. If test light illuminates, a negative ground exists. If test light illuminates when lead is placed on the - side of the knife switch, a positive ground exists. Investigate and clear low voltage grounds.

[redacted]

L-C 1034 Perform module test of wheel slip system.

L-C 1035* Check & record aux. generator output at VR15 module.

Aux. Gen. Output at VR15 module must be 72 - 78 volts. = 75.5 VDC
Record AC voltage readings at:

TP4 46.5 VAC TP6 46.5 VAC TP10 46.5 VAC

Make sure phases are balance.

[redacted]

L-C 1036* Measure computer power supply output voltage. = 72.5 VDC

Measure Output Voltage

PHI		PH	
A. PSM 300		A. PSH 5 Volt	+5.21
B. PSM 310		B. PSH 15 Volts	+15.3 / −15.4
C. PSM 320		C. PSH 15 V. VRDC	+15.8 / −15.8

VDC

[redacted]

L-C 1037 Inspect cab seats & mounting.

Ensure cab seats are securely mounted and adjustable.

L-C 1038 Inspect cab windows, windshields & sun visors.

Ensure cab windows and windshields are not cracked or broken and provide a clear unobstructed view.

L-C 1039 Test windshield wipers.

Ensure windshield wiper blades are in good condition and windshield wipers are operating properly.

L-C 1040 Check engine speeds.

Ensure engine speeds respond to changes in throttle settings.

[redacted]

Completed By: [redacted]

L-C 1041* · **Measure & record manometer readings of air filters.**

Reading in Inches of Water		Minimum	Maximum
A = Air Filters (Eng. + Inertial)	3.5	5 inches	14.5 inches
I = Inertial	2.1	3 inches	7 inches
E = Engine Filters A - I	1.4	2 inches	8.5 inches
Electrical Cabinet	ϕ	0.5 inch	
HEP Cabinet	—	1.0 inch	

L-C 1042 **Ensure decals and stenciling are in place and legible.** [redacted]

Ensure "DANGER - High Voltage" decals are in place and legible on hi-voltage cabinet.

Ensure stencil on interior wall reading "Fully Equipped FRA Part 223 Glazing" is in place and legible.

L-C 1043 **Check Emergency Fuel Shut Off & MU Stop** [redacted]

Main engine and HEP engine must shut down when Emergency Fuel shut Off button is depressed. Main engine should shut down when MU stop switch is depressed. Place MU switch to RUN when completed.

Main Engine

L-C 1044 **With engine running, listen for unusual main engine noise.** [redacted]

Listen for unusual noise from rotating equipment such as the gear train, pumps and accessories, noise in the area of the crankshaft, the auxiliary generator and drive assembly, and the engine stub shaft. Listen for usual noise from fans: Cooling fans, HEP fan, dynamic brake grid blower motor. Open the top deck covers and inspect camshaft, rocker arms and valve bridges.

L-C 1045 **With engine running, inspect AR15 gen. & blower assembly.** [redacted]

Listen for unusual noise and excessive vibration at blower assembly and inertial filter blower motor.

L-C 1046 **With engine running, inspect for oil, fuel & coolant leaks.** [redacted]

Oil Leaks: Check for oil leaks at the crankcase and air box covers, top deck and head frame assembly, eductor tube and oil separator, michianna oil filter and the turbo lube oil pump. At the HEP engine, inspect oil lines and the engine.

Fuel leaks: Check for fuel leaks at the fuel pump discharge piping, spin on fuel filters and sight glasses, fuel manifold and crossover piping, and the Amot valve and associated piping. At the HEP engine check for leaks at the fuel filters and strainer, and the fuel lines.

Coolant Leaks: Check for coolant leaks in the following areas: air compressor and piping, fuel oil pre heater piping, lube oil cooler piping, water expansion tank, sight glass, pressure cap and associated piping, water pumps and associated piping, water drain valves, engine discharge "Y" pipes, turbocharger aftercooler piping, radiator cores, manifolds and associated piping. At the HEP engine, check for coolant leaks at the water pipe couplings.

Also check for air leaks on the aftercooler housing gaskets, aftercooler core gaskets and the engine air box hand hole cover gaskets.

L-C 1047 **With engine running, inspect HEP & air compressor.**

At air compressor, inspect for sticking unloader valve, or air escaping from pop off valves. At HEP engine, inspect for fuel, exhaust, and coolant leaks, listening for unusual noise. Ensure exhaust manifold and piping on HEP engine are protected will blankets. Ensure hot water pipes on main engine and HEP engine are protect with wrapping.

L-C 1048 **With engine running, inspect for exhaust leaks.**

Using a flashlight, check for exhaust in the area of the exhaust manifold base bolts, exhaust stack and silencer, turbo screen inspection window, turboscreen to expansion joint, and the expansion joint to turbo inlet scrolls.

L-C 1049 **Check low water & crankcase pressure device (F59PH).**

Using the test fitting on the low water device, ensure low water button trips on device. Use vacuum bulb to test crankcase overpressure portion of device. Governor button will also trip shutting down main engine. Verify operation of audible and visual alarms function properly.

Fc#1 A=73.4 C=71.3 Fc#2 A=75.5 C=73.4 Alys

L-C 1050 **Check cooling fans & radiator shutter operation.**

Using the computer, select "Self Test' and the select "Fan Test" on the default screen. Following prompts and directed on the display panel and observe the #1 cooling fan and shutters operate first and then the #2 cooling fan.

L-C 1051 **Test main reservoir safety valve for proper operating range.**

On the F59PH, place the Control & Fuel Pump slide switch down, and on the F59PFI, open the Module Breaker. Observe the main reservoir pressure increase on the gauge in the cab and when reaching 150 lbs, the safety valve should open, discharging compressed air to atmosphere. Verify that main reservoir pressure does not exceeding 150 lbs.

J End Power

L-C 1052 **Check operation of cooling fan.**

When first starting HEP engine and prior to load test, use a temperature pyrometer to measure coolant temperature at the Y pipe. As HEP engine ramps and coolant temperature increases, verify cooling fan start to operate at 185 degrees.

L-C 1053 **Inspect HEP wiring and connections.**

Inspect HEP wiring and loose connections and for signs of overheating.

L-C 1054* **Perform and record the results of the following tests.**

Record findings on Inbound Load Test Sheet

[redacted]

HEP ENGINE

Overspeed (65Hz) (Adjust Tach Rheostat)	65 Hz
Over Voltage (510 - 520 VAC)	512 VAC
Under Voltage (450 - 460 VAC)	458 VAC
Over Frequency (62.5 - 63 Hz)	63 Hz
Under Frequency (56 - 58 HZ)	56.4 Hz

	Tripped	Not Tripped
Low Oil Pressure Jumper N.C. Contacts of Oil Pressure Switch	X	
Hot Engine Warning (Jumper pins on gray 215 switch)	X	
Hot engine shut down (Jumper pins on black 225 switch)	X	
Ground Relay Test (jumper 24L7)	X	

Oil Pressure	58 PSI
Temperature	182 °F
Fuel Pressure	32 PSI

[redacted]

L-C 1055 **Test HEP overspeed (65Hz)**

Adjust tach. rheostat and increase engine speed to verify engine overspeed functions properly and drips at 65HZ.

L-C 1056 **Test HEP low oil pressure device.**

Using jumper wire, jumper the normally closed contacts at the oil pressure switch to verify engine shuts down.

L-C 1057 **Test HEP hot engine warning device (215°)**

Unplug harness from the hot engine switch (215°) gray switch. Use jumper wire to short the two (2) pins together. Observe cooling fans energize and the Hot Eng. & Aux. Eng. Fault light illuminate. Remove jumper wire and attach harness to switch, cooling fan drops out and the Hot Eng. & Aux. Eng. Fault light goes out.

L-C 1058 **Test HEP hot engine shut down (225°)**

Unplug the harness for the engine shut down switch (225°) black switch. Use jumper wire to short the two (2) pins together. The Hot Eng. light and Aux. Eng. Fault lights will illuminate, engine speed will reduce to idle and after one (1) min. the engine will shut down. Try to restart the engine and it should not crank. Remove the jumper wire and attach harness to switch. Press the Fault Reset button and the Aux. Eng. Fault light & Hot Eng. lights will go out. Restart HEP.

Completed By:

[redacted]

L-C 1059 **Test HEP UOVT setting (510-520 VAC & 450-460 VAC)**

Mark the position on the HEP rheostat REHE where presently set for 480 VAC. Increase/Decrease HEP voltage until UOV either drops out at 510-520 VAC or 450-460 VAC. Both under and over volts shall be tested. After ten (10) secs. The VOLT TRIP light will come on and RH and LH HEP indicator light will go off. The RH and LH HEP Breaker Open lights will also come on. Readjust the rheostat to 480 volts, depress the Fault Reset button and the VOLT TRIP light will go off. Depress HEP pushbutton. Observe the RH and LH HEP lights come on. The RH and LH Breaker lights will go off.

[redacted]

L-C 1060 **Test HEP UOF relay settings (56-58 Hz & 62.5-63 Hz)**

Turning the rated speed adjustment on the governor speed control panel, engine RPM will increase or decrease accordingly until the Under/Over Frequency Relay drops out at 56-58 Hz for low frequency or 62.5-63 Hz for high frequency. After ten (10) secs. the FREQ TRIP light will come on, the RH and LH HEP On indicator lights will go off and the RH and LH Breaker Open lights will come on. Readjust the engine RPM to 60 Hz. Push the Fault Reset button and the FREQ Trip light will go off.

[redacted]

L-C 1061 **Test ground relay (HEP)**

At the HEP Fuse & Switch Panel, place the 480 VAC toggle switch to OFF. Ground 24L7 using a jumper. Place 480 VAC toggle switch to ON and observe the HEP SYST. GRND. light illuminates. Place the 480 VAC toggle switch to OFF and the Ground light should stay on. Depress the Ground Fault Reset push button and the GRND light will go out. Remove ground jumper from 24L7. Return the 480 VAC toggle switch to the ON position.

[redacted]

L-C 1062 **Load test HEP engine.**

Verify HEP is producing 350KW with 60Hz. Check to ensure needles are not fluctuating.

Shop Items

Cab

L-C 1063 Review & resolve all outstanding defects.

Review SMP 100 and logged computer faults. All defects recorded and those found during inspection must be corrected before locomotive is release for service.

[redacted]

L-C 1064 **Calibrate speed indicator with current wheel size.**

L-C 1065 **Check speedometer overspeed & zero speed setting.**

Verify overspeed setting using a function generator, with and without ATS cut in. Check to ensure zero speed picks up and drops out at 3 mph.

Completed By:

[redacted]

L-C 1066 **Inspect high voltage cabinet.**

Inspect the following contactors and switches:

1) Power Contactors
2) Motor Brake Transfer Switches
3) Generator Field Contactor
4) Starting Contactor
5) Engine Purge Contactor
6) Load Test Transfer Switch
7) Brake Power Contactor

Inspect the condition of contactor tips, indications of arcing, and signs of overheating. Ensure arc shuts are properly position after inspect.

L-C 1067 **Check condition of relays, transformers and wiring.**

Inspect relays & transformers for signs of overheating, checking insulation and connectors. Ensure wires are routed properly and fastened securely.

L-C 1068 **Check for high voltage system grounds.**

Use a 1000 volt megger, readings must be above 4 megs.

L-C 1069 **Check circuit and control breakers for proper operation.**

Open and close circuit breakers ensuring that each spring and latch when closed and circuit breaker does not bind.

L-C 1070 **Inspect, download, reset time & seal event recorder.**

L-C 1071 **Replenish supplies, tools & hoses.**

Supplies should include: 1 red flag, 1 sealed first aid kit, 12 fuses, pipe wrench, brake pipe and main reservoir hoses, a brake pipe adjustment tool and a reverser handle.

L-C 1072 **Change all HVAC air filters.**

Change condenser inlet filter.
Change return air filter.
Change fresh air make-up filter.

n Generator Compartment

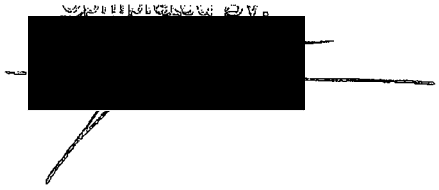
L-C 1073 **Inspect & clean AR15 slip rings, fuses & diodes.**

Slip Rings: Ensure that the surface of the slip rings are smooth and free of grooves. Inspect the surface of the slip rings for discoloration. Discoloration is a sign of alternator overloading (slip rings under stress). A horsepower reading or an excitation system check may assist in troubleshooting. Etching of the surface may be caused by an accumulation of dirt between the brush and slip ring. Threading may be caused by an improperly placed brush holder or improper spring tension. Ensure the insulation between the slip rings is wiped clean preventing a short circuit between slip rings. On the brush holders, verify the carbonway surface is smooth, allowing the brushes to move freely. Ensure that the brushe holders are placed at the proper distance and location on the slip rings, not outside the surface of the slip rings. Clean the brush holder insulators and verify all wire connections are tight. Ensure the brushes are applied properly and that the pigtails do not interfere with the spring tension. The pigtails must be placed at an angle away from the spring finger.

Fuses/Diodes: Clean all diodes. A protruding pin on the fuse (attached to a diode) will signify a defective diode. Replace failed fuses and associated diodes in effected cluster. There are two types of diodes; the positive diode has a white ceramic ring and the negative diode has a pink ceramic ring. When changing diodes, both corresponding positive and negative diodes must be changed. Apply a thin coat of silicon heat transfer compound on the heat sink seat (hex base), not on the diode thread. Torque specifications for the diode is 25 ft/lbs and 13 ft/lb for the terminal lug end.

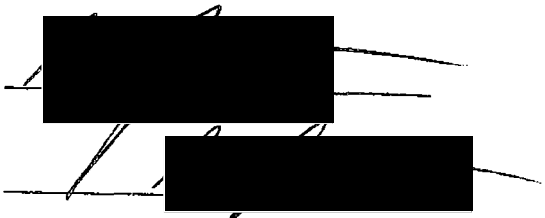
L-C 1074 **Renew worn AR15 slip ring brushes.**

Renew brushes if shorter than the top of the brush holder. When new brushes are installed, they need to be "sanded-in" by placing a piece of No. 100 grade sandpaper and moving the sandpaper in the direction of rotation. Lift the brush when moving the paper back. Avoid rounding the edges of the brush.



L-C 1075 **Ensure "Danger-High Voltage" decals are in place & legible.**

Danger - High Voltage decals must be legible and in place on frame of alternator housing and on high voltage cabinet.



L-C 1076 **Inspect T.B.31-M .**

Inspect T.B. 31-M for signs of overheating, and ensure connections are secure.

L-C 1077 **Test & lube traction motor blower inlet guide vane.**

Lubricate bushing around vane.

L-C 1078 **Change bag type engine air filters.**

With the filters removed, examine the condition of the turbocharger intake impeller and check for signs of visible damage, nicks or chips on the impeller blades, or signs of the impeller rubbing on the housing. Inspect frame for missing or broken components. Install new intake filters and ensure hardware on filter housing is properly secured.

Engine Room

L-C 1079* **Review all lab results of oil samples.**

Review lab analysis of main engine oil, air compressor oil, HEP oil.

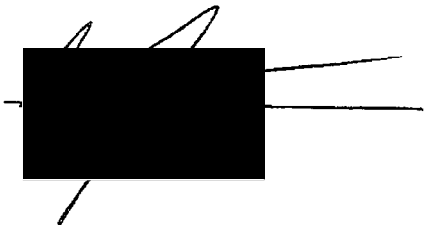
L-C 1080 **Clean radiators using compressed air.**

Clean radiators using low pressure compressed air. Ensure passages between the tubes are clear and free from obstructions such as an accumulation of dirt/dust.

L-C 1081 **Inspect dynamic brake blower motor.**

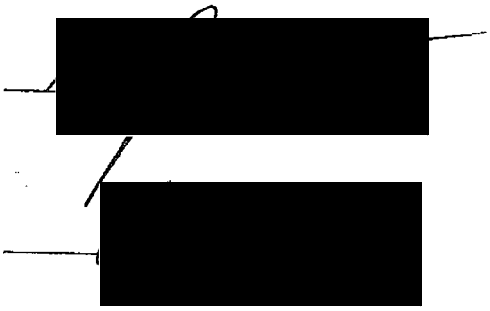
Inspect brushes and replace if below top of brush holder. Inspect condition of commutator.

Inspect wiring and verify connections are tight. Blow out dust and debris with low pressure shop air. Ensure "Danger-High Voltage" decals are in place and legible. Verify "Danger-High Voltage" decal on high voltage cover adjacent to turbo lube pump is in place and legible.



L-C 1082 **Inspect fuel pump motor. Replace worn brushes.**

Ensure mounting bolts are securely fastened. Inspect wiring and verify connections are tight, replacing worn brushes on F59PH as required. Blow out dust and debris with low pressure shop air.



L-C 1083 **Change fuel filters, clean suction strainer.**

Check for signs of water in the bottom of the housing. If water accumulation is observed, this may be caused by excessive condensation in the fuel tank or a defective fuel oil heat exchanger. Drain and clean condensate from primary filter housing. Renew O-ring on filter housing. Renew secondary fuel filters, applying a light film of oil on the seal of the new filters and apply hand tight only. Remove both sight glasses, clean and reapply.

L-C 1084 **Inspect turbo soak back pump/motor. Replace worn brushes.**

Ensure mounting bolts are securely fastened. Inspect wiring and verify connections are tight. Replace worn brushes on F59PH as required. Blow out dirt and debris using low pressure shop air.

L-C 1085 **Change soak back & turbo oil filters.**
Drain and clean filter housing. Refill turbo canister with oil before replacing filter.

L-C 1086 **Change main engine lube oil filters. Clean lube oil strainers.**
After removing the old filters, clean the housing of debris before applying new filters. Apply a new seal to the housing door, close the door and gradually tighten bolts in a cross pattern. At the lube oil strainer housing, remove and clean the fine mesh strainers and clean the housing. Apply new seals before the strainer screens are reapplied. Note: If the strainer screen is not seated properly when reinstalled, a suction leak in the lube oil system may be created and a low lube oil shutdown condition will occur.

L-C 1087 **Check main engine oil level.**

L-C 1088 **Clean eductor tube & lube oil separator screen.**
The meshed element inside the oil separator and the eductor tube must be removed, cleaned and reapplied with new gaskets.

L-C 1089 **Inspect turbo screen**
Inspect the turbo screen through the inspection port for cracks, breaks, buildup of carbon or chemical residue buildup from the cooling water additive. These are all indicators of engine performance or engine problems. The engine should be examined further if any of these conditions are present.

L-C 1090 **Check governor oil level. (F59PH) Bring to full mark.**
Determine cause if governor oil level is low. Do not over fill.

L-C 1091 **Check main engine coolant level & concentration.**

L-C 1092 **Lubricate shutter linkage. Check for binding & worn areas.**
Inspect for binding and worn sections.

1093 **Inspect A/C cabinets & check for grounds.**

L-C 1094 **Inspect all doors, latches, seals & safety retainers.**
Check all car body and electrical cabinet doors, door handles and latches, door seals and module door supports.

L-C 1095 **Lube & operate handbrake. Stencil PM date on cover.**

L-C 1096 **Inspect exhaust manifold & expansion joints.**
Inspect for loose exhaust manifold base bolts and gaskets out of position. Ensure engine "Vee" section is clean and free from an accumulation of oil which could cause an engine room fire. Ensure exhaust manifold heat shields are properly applied and secured and are free from damage.

L-C 1097 **Inspect turbo exhaust stack & silencer.**
Inspect to ensure exhaust stack and silencer is secured and look for signs of an exhaust leak.

Completed by:

[redacted]

Leaking water. Cylinder # 7

L-C 1098 Inspect main engine air box & crankcase.

Pressurize the coolant system with water to 20 psi. With the top deck covers open and the air box hand hole covers removed, bar the engine over, inspecting all power assemblies and components for abnormal conditions, and signs of internal coolant leaks.

1) Abnormal ring or ringland wear.
2) Broken or damaged rings.
3) Excessive scoring or scuffing on the piston or liner.
4) Leaking inlet water jumper tube gasket at the manifold or the seal at the liner.
5) Water jumper cracked.
6) Cylinder head to liner gaskets leaking as seen by water leaking down the inside and outside of the liner or on top of the piston.
7) Cracked head leaking into combustion chamber as seen by water leaking down the inside of the liner or on top of the piston.
8) Cracked cylinder head in exhaust port as seen by water leaking past the exhaust valves onto the liner or on top of the piston.
9) Cracked liner as seen by water leaking down the inside of the liner, or leaking down the outside of the liner.
10) Inspect the aftercooler cores through the air box ports #6 and #12 power assemblies.
11) Air box to oil pan bolts for tightness.
12) Air box hand hole cover gaskets.

Crankcase Inspection:

Bar the engine over and inspect for defects or abnormal conditions in the following areas:

1) Overheated main bearing caps, connecting rods, piston carriers and pistons. Overheated components will change from their normal gray color to a blue/red discoloration.
2) Worn or damaged main bearings or connecting rod bearings as seen by babbit or lead material weeping or rolling out from the bearing caps.
3) Loose main bearing caps.
4) Loose connecting rod basket bolts (fork rods).
5) Basket assembly improperly applied.
6) Blade rod out of place.
7) Pee pipes that are loose, bent, cracked, plugged, or misaligned.
8) Bottom of the pistons, piston carriers and connecting rods for signs of missing or damaged components.
9) Crankshaft for visible damage or cracks.
10) Thrust washer for excessive wear or visible defects.
11) Crankcase hand hole cover gaskets.

L-C 1099 Verify air box drains are clear.

Ensure air box drains are free from obstruction to prevent the accumulation of oil inside the air box.

[redacted]

L-C 1100 With fuel pump running, inspect for internal/external leaks

Fuel Leaks: Inspect for fuel leaks at the fuel injector body, fuel jumper line connections at manifold and at injector, and the fuel delivery manifold and connections inside the top deck.

L-C 1101 Inspect aftercoolers, radiators, piping & couplings for leaks.

Inspect all water piping in the engine, and air compressor compartments. Remove inspections covers and inspect radiator cores and headers for coolant leaks. Inspect water pumps, expansion tank filler cap and neck for coolant leaks. When completed, relieve pressure and remove the pressurized equipment.

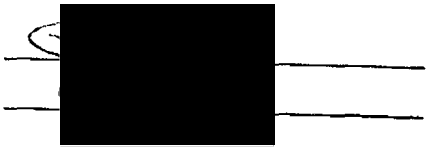
Completed By: [redacted]

L-C 1102 **Ensure guards are properly applied on rotating equipment.**

Inspect the following guards.

1) Air Compressor drive shaft.
2) Auxillary generator drive shaft.
3) Auxiliary generator blower shroud..
4) Cooling fan shrouds.
5) Dynamic brake fan shroud.
6) HEP cooling fan shroud.
7) Shutter shrouds.
8) Main generator guards.
9) Traction motor blower guard.
10) Front of HEP shaft guard..

Air Compressor

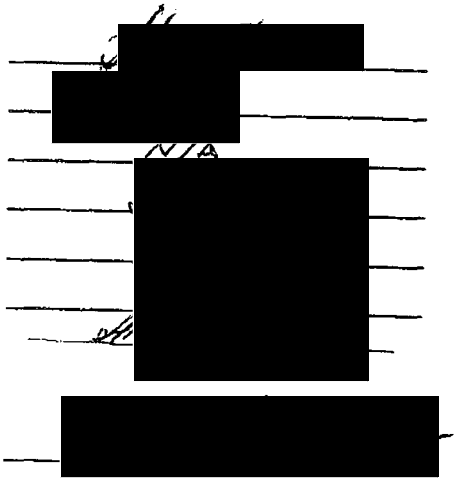


L-C 1103 **Change air compressor oil filter.**

L-C 1104 **Check air compressor oil level. Bring to full.**

Use the proper oil and fill to the proper indicator on the dipstick.

HEP



L-C 1105 **Change HEP lube oil filter and air filter.**

L-C 1106 **Change HEP fuel filter.**

L-C 1107 **Clean HEP lube oil centrifuge element (884-887).**

L-C 1108 **Change HEP engine oil. Bring to full mark after starting.**

L-C 1109 **Change HEP coolant filter (884-887).**

L-C 1110 **Check HEP coolant level & concentration.**

Installed new HEP Heat Motor 12-16-09

Underframe

1111* **Record wheel measurements.**

Record wheel measurements

Gauge readings	Flange Ht. Max. 1-1/2" 24	Flange Th. Min. 1" 8	Rim Th. Min. 1" 16	
Wheel #L1	19	0	33	MY200204016
Wheel #R1	20	0	32	
Wheel #L2	19	0	39	02F1871
Wheel #R2	19	0	37	
Wheel #L3	19	0	37	02F1869
Wheel #R3	19	2	37	
Wheel #L4	19	0	33	02F1879
Wheel #R4	19	2	32	

Notify Supervisor if readings are at these points:

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

Completed By:

[redacted]

L-C 1112* 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.

[redacted]

L-C 1113 Inspect all traction motors.

Ensure brush holders are secure (150-160 ft/lbs) with cable & shunt connectors tight.
Brush holder is between 1/8" to 3/16" above commutator.
Inspect commutator for high/low bars, grooving, threading, copper drag & bar edge burning.
Examine for signs of flash over.
Inspect brushes for brakes, chips or cracks.
Inspect brush shunts for evidence of being burnt, pulled out, discolored or frayed.
Ensure shunt leads are properly routed around the spring fingers of the holder.
Replace worn brushes when one of the three wear limit lines just begin to disappear below the windows of the brush holder.

[redacted]

L-C 1114 Clean traction motor string band & brush holders.

Wipe string/ teflon band clean using a clean shop towel.
Clean brush holder insulator studs.
When condition warrants, use high volume, low pressure (30-50 psi) clean dry compressed air to blow away debris.

L-C 1115 Ensure traction motor covers & seals are in place.

Verify all covers are not bent, cracked or broken, are in place, tight and all bolts secured.

L-C 1116 Inspect traction motor cables & ground wire.

Inspect cabling for signs of being burnt, overheated, cut & exposed wire strands.
Ensure protected sleeves are in place.
Ensure ground wire is secure.

L-C 1117 Inspect air ducts for damage or loose connections.

Inspect ducts ensuring each is in proper position and are not damaged or cut.

L-C 1118 Inspect end bells, support bearing caps & bolts.

Verify all bolts are secured properly and support bearing cap bolts are properly safety wired.

Completed By: [redacted]

L-C 1119 **Inspect traction motor gear case & lube level.**

Thoroughly clean dirt and debris from cap before removing.
Inspect for damage.
Inspect for excessive leakage evidenced by excessive oil flung outward around inside of the wheel.
Add oil if necessary.
Inspect support arm.
Ensure gear case plugs are secured & safety wired.

[redacted]

L-C 1120 **Check suspension bearing assembly & oil level. (F59PH)**

Oil level should be to the point of overflow at the top of the filler cap.
Inspect condition of filler cap & spring mechanism.
Inspect for evidence of leakage, overheated condition or damage.
Ensure all bolts are secured & safety wired.
Wick bolts are tightened to 50 ft/lbs torque.
Report defects to supervisor.

[redacted]

L-C 1121 **Check truck center casting, motor suspension lugs/frames.**

Visually inspect for oil leaks, cracks or breaks. Inspect traction motor nose suspension for excessive wear resulting in free movement between the traction motor frame and the suspension assembly. Check for more than 1/4" free movement in the nose suspension assembly. Minimum thickness of the lower wear plate is 7/16".

[redacted]

L-C 1122 **Verify wheel is not contacting truck side frame.**

L-C 1123 **Inspect draft gear, pocket & coupler carrier.**

L-C 1124 **Clean radar head.**

Check for proper alignment of radar unit and inspect cable for damage and being properly secured.

L-C 1125 **Drain condensate from fuel tank.**

To drain condensate from the fuel tank, remove the drain pipe plug, and open the drain valve. Drain condensate until clean fuel appears. Close the drain valve, and replace the plug when completed.

Final Running Checks

[redacted]

L-C 1126 **Bring engine and HEP oil level to full mark.**

Immediately after starting locomotive and HEP engine, check main engine and HEP engine oil level and bring to full mark.

L-C 1127 **Bring engine and HEP coolant level to full mark.**

Immediately after starting locomotive and HEP engine, check main engine and HEP engine coolant level and bring to full mark.

[redacted]

L-C 1128 **Engine room inspection**

Perform engine room inspection of all components and checking for air, oil, fuel, and water leaks.

[redacted]

L-C 1129 **Check all fire extinguishers.**

Fire extinguishers in place & sealed.
Check date tag (within 1 year) & pressure gauges.

Completed By: [redacted]

L-C 1130* **Check & record battery specific gravity.**

1.265	1.264	1.258	1.274
1.261	1.271	1.272	1.267
1.272	1.275	1.273	1.274
1.277	1.264	1.249	1.278

Left — Right

Front
Facing Battery
Left Side of Locomotive

1.262	1.256	1.264	1.260
1.261	1.270	1.270	1.263
1.257	1.268	1.269	1.259
1.261	1.262	1.264	1.262

Left — Right

Front
Facing Battery
Right Side of Locomotive

L-C 1131 **Wash batteries & check electrolyte level.** [redacted]

The electrolyte level in all cells should not be allowed to fall below the top of the battery plates. When refilling, allow about 1/4" space below the bottom of the filling tube to minimize splashing. Take care not to overfill, particularly cells that are hard to access. If the level is extremely low, check the battery cases for cracks. Look for acid corrosion marks when inspecting for cracks. Cleanliness is important to prevent the collection of dirt, corrosive products and oil on the top of the batteries. With the battery switch open, wash off the batteries with water or scrape the residue of oil/dirt with a wooden scraper. Note: An electrolyte spill can be neutralized with baking soda.

L-C 1132 **Check battery cables & connections.** [redacted]

Verify the condition of the cable insulation for dryness and cuts. Ensure connectors (lugs) are properly secured to the battery posts.

1133* **Load test main engine. Record results.** [redacted]

Self load main engine.

	Before Service 12-16-04 Load Test 1	Load Test 2	After Service Load Test 1	Load Test 2
Main Generator Volts	1328	1428	1329	1432
Main Generator Amps	1437	1534	1437	1544
Horsepower	2714	3121	2742	3139
	Idle	Full load	Idle	Full Load
Lube Oil Pressure	40	85	22	90
Load Regulator	100.0	90.5	100%	88.9
FC 1 (On or Off)	OFF	ON	OFF	ON
FC 2 (On or Off)	OFF	ON	OFF	ON

	Before Service EPT1	EPT2	EPT1	EPT2	After Service EPT1	EPT2	EPT1	EPT2
Engine Temperature	142	146	165	169	160	169	166	170

COMPLETED BY: [redacted]

L-C 1134 **Load test HEP engine. Record results.**

Load test HEP engine a minimum of 20 minutes and verify HEP is producing 350KW with 60Hz. Check to ensure needles are not fluctuating.

Oil Pressure 58 PSI

Temperature 180 °F

Fuel Pressure 32 PSI

L-C 1135 **Check operation of ATS.**

Verify ATS receiver is properly secured and the washboards are aligned. Perform a slap test. Perform ATS test and complete form SMP 8.

[redacted]

L-C 1136 **Check & drain moisture from main reservoir tanks.**

Drain condensate from main reservoir tanks.

L-C 1137 **Drain intercooler & dirt collector condensate.**

L-C 1138 **Check air compressor system.**

Check to ensure main reservoir pressure is maintained between pressures of 130 and 140 lbs.

[redacted]

L-C 1139 **Test air gauges.**

Verify accuracy of each needle (4) using a CO_2 tester at 100 lbs. of pressure.

L-C 1140 **Equalizing reservoir & 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.

[redacted]

I141 **Test air brake, safety controls and warning devices.**

Ensure 30 CDW Automatic Brake Valve functions as intended in all positions. Test actuating (bail-off), graduated release, TMS and emergency with PC function.

L-C 1142 **Test independent brake.**

Apply independent brake in 10 lb. increments and ensure brake cylinder pressure increases and stabilizes. Fully apply independent brake obtaining 72 lbs. brake cylinder pressure. Fully release independent and brake cylinder pressure should reduce to 0 lbs. pressure.

[redacted]

L-C 1143 **Complete form FRA F6180-49A (Blue Card)**

[redacted]

Review and resolve all outstanding defects.

Review SMP 100, Service Requests, Notes, and other defect reports. All defects recorded and those found during inspection shall be corrected before locomotive is released for service.

Signature: [redacted]

Dow ad File: 124A0873.D21.

Start Time:	Mon Nov 29 09:52:10 2004.
Stop Time:	Tue Dec 21 08:12:45 2004.
Laptop Time:	Fri Nov 19 20:17:27 2004.
Event Recorder Time:	Tue Dec 21 08:12:39 2004.
Previous Download:	Fri Dec 17 10:40:11 2004.
KBytes used since then:	2.

Analog Thresholds:

A1 (SPD): 2	A2 (BPP): 4	A3 (BCP): 4	A4 (HVT): 5
A5 (ATE): 6	A6 (ATK): 6	A7 (TM+): 99	A8 (TM-): 99

Record Type Summary:

POWERUP	62	LOCO ID	710	DOWNLOAD	1
TEST	1	CHG_TIME	1	ENABLE	366
DISABLE	344	ANL_THRES	0	DELTA	57633
PRIORITY	0	PERIODIC	545		

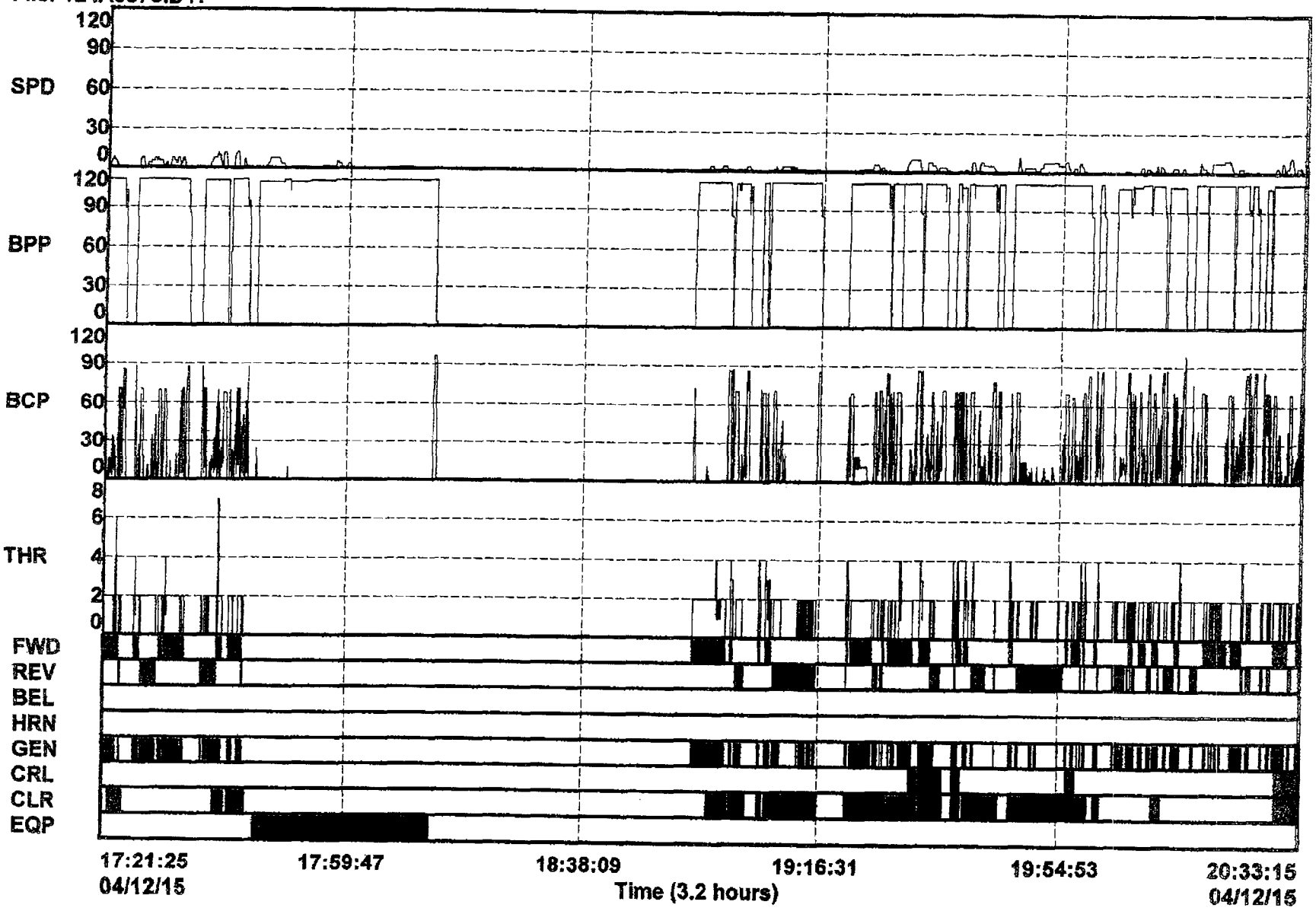
Download Programme Version:	3.24
Event Recorder Programme Version:	2.60
Download came from Locomotive:	0873

Downloaded from TS 403 Event Recorder.

Road#: 0873
Wheel Size: 40.0
File: 124A0873.D17

Graph Data

Dnld Date: 04/12/17
Dnld Time: 10:40:05



CEL INSTRUMENTS NOISE DOSIMETER SURVEY REPORT

Company name	[873]
User name	[ ]
Location	[ ]
Department	[ ]
Job Function	[Lower Horn]
Employee number	[ ]
Social Security number	[ ]

Model number		[CEL-360]	Serial-no	[.....]
Measurement range	(dB)	[70-140]	Version	[1.01]
Frequency weighting	RMS	[A]	Peak	[Lin]
Profiles recorded	stored	[NO]	interval	[---]

	dd/mm/yy	hh:mm:ss		
Start of run	[16/12/04	08:28:32]		
End of run	[16/12/04	08:28:38]		
Duration of run	[	00:00:06]		
Total pause time	[	00:00:00]		
Calibrated before run on	[02/12/04	10:28:56]	at [113.6]	dB
Calibrated after run on	[--/--/--	--------]	at [---.-]	dB
Microphone serial number	[	80007702884]		

Equivalent sound level LAeq	(dB)	[104.1]	Q=3 No threshold	
Sound exposure level LAE	(dB)	[112.5]	Q=3 No threshold	
Average sound level [SLOW]	(dB)	[104.2]	Q=5 No threshold	
RMS maximum level [SLOW]	(dB)	[104.5]	at [16/12/04	08:28:37]
RMS minimum level [SLOW]	(dB)	[102.1]	at [16/12/04	08:28:38]
Peak exceedance level	(dB)	[118.8]	at [16/12/04	08:28:36]
LAS[10.0] %	(dB)	[104.5]		
LAS[50.0] %	(dB)	[104.5]		
LAS[90.0] %	(dB)	[103.5]		
LAS[95.0] %	(dB)	[103.0]		
LAS[99.0] %	(dB)	[102.5]		
Time under-loaded		[0:00:00]	(%)	[0.00]
Time overloaded		[0:00:00]	(%)	[0.00]

OSHA 1910.95 Occupational Noise Exposure Regulations (1983)

Instrument setup name		[OSHA]				
Threshold level	(dB)	80			90	
Criterion level	(dB)	90			90	
Exchange rate	(Q)	5			5	
Time weighting		[SLOW]		[	SLOW	]
Time weighted average TWA	(dB)	[44.1]		[	44.1	]
Actual measured dose	(%)	[0.2]		[	0.2	]
8 hour projected dose	(%)	[714.8]		[	714.8	]
Time above or equal to 85 dB		[0:00:06]	(%)	[	100.00	]
Time above or equal to 90 dB		[0:00:06]	(%)	[	100.00	]

CEL INSTRUMENTS NOISE DOSIMETER SURVEY REPORT

Company name	[873]
User name	[ ]
Location	[ ]
Department	[ ]
Job Function	[upper Horn]
Employee number	[ ]
Social Security number	[ ]

Model number		[CEL-360]	Serial-no	[.....]
Measurement range	(dB)	[70-140]	Version	[1.01]
Frequency weighting	RMS	[A]	Peak	[Lin]
Profiles recorded	stored	[NO]	interval	[---]

	dd/mm/yy	hh:mm:ss			
Start of run	[16/12/04	08:30:06]			
End of run	[16/12/04	08:30:13]			
Duration of run	[	00:00:07]			
Total pause time	[	00:00:00]			
Calibrated before run on	[02/12/04	10:28:56]	at	[113.6]	dB
Calibrated after run on	[--/--/--	--------]	at	[---.-]	dB
Microphone serial number	[	80007702884]			

Equivalent sound level LAeq	(dB)	[96.9]	Q=3 No threshold		
Sound exposure level LAE	(dB)	[105.6]	Q=3 No threshold		
Average sound level [SLOW]	(dB)	[97.1]	Q=5 No threshold		
RMS maximum level [SLOW]	(dB)	[97.9]	at [16/12/04	08:30:12]	
RMS minimum level [SLOW]	(dB)	[93.3]	at [16/12/04	08:30:13]	
Peak exceedance level	(dB)	[117.0]	at [16/12/04	08:30:08]	
LAS[10.0] %	(dB)	[97.5]			
LAS[50.0] %	(dB)	[97.5]			
LAS[90.0] %	(dB)	[96.0]			
LAS[95.0] %	(dB)	[95.0]			
LAS[99.0] %	(dB)	[93.5]			
Time under-loaded		[0:00:00]	(%)	[1.88]	
Time overloaded		[0:00:00]	(%)	[0.00]	

OSHA 1910.95 Occupational Noise Exposure Regulations (1983)

Instrument setup name		[OSHA]				
Threshold level	(dB)	80			90	
Criterion level	(dB)	90			90	
Exchange rate	(Q)	5			5	
Time weighting		[SLOW]			[SLOW]	
Time weighted average TWA	(dB)	[---.-]			[---.-]	
Actual measured dose	(%)	[0.1]			[0.1]	
8 hour projected dose	(%)	[267.1]			[267.1]	
Time above or equal to 85 dB		[0:00:07]	(%)	[100.00]		
Time above or equal to 90 dB		[0:00:07]	(%)	[100.00]		

U.S. Department of Transportation
Federal Railroad Administration

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 2004 Check if new loco. ☐ If loco. renumbered give previous no.

1. OPERATED BY	RR CODE	2. OWNED BY (Railroad)	RR CODE
AMTRAK	0 1 5 0	SO. CA. REGIONAL RAIL AUTHORITY	

3. MODEL NO.	4. LOCO. NO.	5. YR. BUILT	6. PROPELLED BY	7. HORSEPOWER	8. TYPE OF SERVICE: PASSENGER ☒ ROAD ☐ YARD ☐ OTHER ☐
F59PH	873	1993	D-E	3000	

9. STEAM GEN.	GEN. #1. Working Pressure	GEN. #2. Working Pressure
NOT EQUIPPED		

10. MAXIMUM PISTON TRAVEL	TYPE OF AIR BRAKE	11. OUT OF USE CREDIT
8 INCHES inches	26 LUL	

12. LAST PERIODIC INSPECTION DATE: 12-05-03 (M06 INSP.) PLACE: LOS ANGELES, CA

PERIODIC INSPECTIONS

13. DATE MO DAY YR	14. PLACE	15.* ITEMS	16. PERSON CONDUCTING	15.* ITEMS	16. PERSON CONDUCTING	17. CERTIFIED BY
OUT OF USE FROM 3-4-04	TO	3-9-04	LOS ANGELES, CA.			
3-9-04	LOS ANGELES, CA.	1-4 & 7	[redacted]	5	[redacted]	
OUT OF USE FROM 6-2-04	TO	6-8-04	LOS ANGELES, CA.			
6-8-04	LOS ANGELES, CA.	1-4 & 7	[redacted]	5	[redacted]	
OUT OF USE FROM 8/27/04	TO	9/8/04	LOS ANGELES, CA.			
9/8/04	LOS ANGELES, CA.	1-4 & 7	[redacted]	5	[redacted]	
OUT OF USE FROM 12/7/04	TO	12/21/04	LOS ANGELES, CA.			
12/21/04	LOS ANGELES, CA.	1-4 & 7	[redacted]	5	[redacted]	[redacted]

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

TESTS

H & H TEST PRESSURE DRILLED

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	[redacted]	6-8-04 LOS ANGELES, CA. DRILLED	[redacted]	06-02-03 LOS ANGELES, CA. DRILLED
HAMMER AND HYDRO	736 calendar days				
AIRBRAKE 229.27	368 calendar days	[redacted]	6-8-04 LOS ANGELES, CA.	[redacted]	06-02-03 LOS ANGELES, CA.
AIRBRAKE 229.29	NUMBER OF CALENDAR DAYS 1104		LOS ANGELES, CA.		06-10-02 LOS ANGELES, CA.

tification of true copy.
ertify that this is a true copy of the inspection and repair record of locomotive no. 873

(Officer-in-charge) DATE

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

RM FRA F6180-49 A (3-85)

GOVERNMENT PROPERTY DO NOT REMOVE

OMB Approval No. 2130-0004

MAINTENANCE ANALYSIS PROGRAM
DIESEL ELECTRIC LOCOMOTIVES AND CAB CARS
INTERMITTENT INDUCTIVE TRAIN STOP INSPECTION

✓ PERIODIC _____ FAILURE

UNIT NO.	LOCATION	DATE	TIME
873	Los Angeles (CMF)	12/21/04	10:45 A

	FOUND	LEFT
1. Receiver height should be 4½ ± ¼".	4½"	4½"
2. Resistance B32/B31 to ground. (System de-energized). Should be no less than 250,000 Ohms.	∞	∞
3. Resistance C32/C31 to ground. (System de-energized). Should be no less than 250,000 Ohms.	∞	∞
4. Receiver resistance NA and A. Should be 12 to 21 Ohms.	14.8	14.8
5. Receiver resistance NS and A. Should be 27 to 41 Ohms.	33.8	33.8
6. Receiver resistance NA and NS. Should be 37 to 56 Ohms.	43.8	43.8
7. System voltage. Should be 30 to 32 volts.	32V	32V
8. Acknowledge time. Hold ACK switch down and time start of air blow (MV open). Should be 6 to 8 seconds.	6 SEC.	6 SEC.
9. Brake cylinder pressure after ATS reduction. Should be equal or greater than full service.	79 LB.	79 LB.
10. Delay time from MV open (air blow) to ATS penalty (PCS open). Maximum allowed 8 seconds.	6 SEC.	6 SEC.
11. Condition of audible alarm and penalty indicators.	ok	ok
12. Test ATS system by using the ATS portable tester.	ok	ok

ATS CONTROL BOX DATE: 9/3/04
ATS CONTROL BOX SERIAL NO.: 2094001
ATS MAGNET VALVE DATE: 12/5/04

REMARKS

ATS CONTROL BOX SEAL NO: 0164572

[redacted]
MECHANIC

[redacted]
SUPERVISOR

Car #177

BOMBARDIER TRANSPORTATION

CENTRAL MAINTENANCE FACILITY

1/17/05 3:54 PM

EQUIPMENT OUT OF SERVICE

Equip #	In Date	W. O. #	REASON	Projected Out Date
880	01/14/05	392	3 Month Inspection / #7 Power Assy - Head Leak, Worn Liner	01/18/05 → Today
886	12/29/04	379	3 Year Inspection	01/19/05
868	01/17/05	393	Shut Down - Low Water Button	01/19/05 →
878	01/06/05	386	3 Year Inspection / Cam Shaft Stub	01/28/05
Capitals & Mods:	1. Traction Mtrs	2. HEP Fl Plates	3. HEP Hr Meter	4. Belly Pan / Transom	5. Pilot Hnd Hld	6. Yaw Damper	7. Cooling Fan
612	01/17/05	2101	3 Month Inspection	01/18/05 → Today
140	01/17/05	2106	12 Month Inspection	01/18/05 → Today
166	01/17/05	2102	Wheel True - Ride Quality	01/18/05 → Today
177	01/07/05	2081	3 Month Inspection / Mods: 9 / Wheel Change	01/18/05 → Today
621	01/11/05	2089	3 Month Inspection / Accident Damage - Train #607	TBD
Capitals & Mods:	1. Strobe Lt Brkt	3. Comm Remvl	4. Roof Cut Away	5. Bio Counters		7. Duct Clean	
8. Toilet Tank	9. HVAC	10. Dr Motors	11. Carpet	12. Toilet Shrd	13. LLEPM	14. Cndctrs Window	15. Dr Lf Gds	21. Trucks	22. Seat Mod
23. Window Gaskets	24. Aux Lights							Recurring Mods	

EQUIPMENT SERVICEABLE

LOCOMOTIVES								
COACHES	6107	191						
COACHES								
CAB CARS								
ON HOLD	801	802	803					
SPECIAL								
DISPOSITION	113	608	174					

	"B"	"B" BO's	"BTR"	"BTR" BO's	Car
WHEEL SETS	6	15	2	2	OK - 13
Total TM's / TM's Built	6 - 1	5	1 - 0	4	BO - 35

METROLINK/DAILY INSPECTION SHEETS

Location: Cuyr

Date: 1-25-05 Time: [redacted]

Locomotive #: 873 Car #: 177 - 148

Control Cab #: 623

Inspection has been performed per CFR49, parts 229 & 238. Signature: [redacted]

LOCOMOTIVE - CLEANING

1.0 CAB

1.1 Pick up all debris, empty trash container, and replace trash bag.
1.2 Clean windshield (in & out), windows (in & out), and sweep floors.
1.3 Replenish drinking water and paper towels.

2.0 ENGINE ROOM & HEP

2.1 Pick up debris and rags.
2.2 Clean walkways, engine sump and light fixtures, and wipe down engine block.

3.0 EXTERIOR

3.1 Remove debris from walkways, and clean nose and fuel tanks as needed.
3.2 Refill locomotive fuel – no matter what level it is, and check sand level & replenish if below 1 foot minimum level.

The above listed tasks have been performed. Signature: [redacted]

LOCOMOTIVE - ELECTRICAL

1.0 CAB (Including Vestibule & Nose Compartments)

1.1 Check blended brakes, TMS penalty brakes and resets.
1.2 Voice test radio.
1.3 Perform ATS tests, and record results on form SMP100 (MAP100).
1.4 Perform ATS "Slap Test".
1.5 Check computer for faults.

2.0 ENGINE ROOM

2.1 Check HEP indicator lights, voltage & frequency
2.2 Check for spare MU & communication jumper cables - make sure they are available on rack.
2.3 Check hand-brake.

EXTERIOR

3.1 Inspect all jumper cables to ensure they are secured & free from damage.

I have performed the above listed tasks. Signature: [redacted]

LOCOMOTIVE - MECHANICAL

1.0 CAB (Including Vestibule & Nose Compartments)

1.1 Check condition of seats, walls, ceiling, floor, windows, & sun visor.
1.2 Check windshield wiper, door mechanisms, horn, bell for proper function.
1.3 Replenish supply of fuses (12) in proper container.
1.4 Check for red flag and first aid kit (compliance & sealed), and for spare B.P. & F.I.R. hoses.
1.5 Check hand brake operation & ensure correct date stenciling.
1.6 Check for proper operation of sanders.
1.7 Perform Class 1 brake test and record on SMP100 (MAP100).
1.8 Make sure that the GPS power supply is in the on position.

2.0 ENGINE ROOM & HEP

2.1 Check oil levels of main engine, HEP engine, air compressor, & governor (if low, determine cause); and bring to full mark.
2.2 Check coolant levels & concentration for main engine and HEP, and bring to full mark.
2.3 Check for fuel, oil, water, and exhaust leaks.
2.4 Check for unusual noises in engine, auxillary blower, AR15 generator, air compressor, turbo, generator and HEP while running.
2.5 Check air compressor control air system, and drain intercooler and dirt-collector condensate.

3.0 EXTERIOR

3.1 Check condition of body, steps, ladders, walkways, windows, truck safety hangers, brake shoes, and wheels.
3.2 Drain moisture (as required) from main reservoir tank.
3.3 Check brake shoes for proper clearance & alignment (no overlapping), and side bearing clearance.
3.4 Inspect pilot clearance above top of rail (not less than 3" or more than 6").

The above listed tasks have been performed. Signature: [redacted]

All discrepancies found and corresponding corrective actions taken to eliminate them, must be reported on sheet 4 of this document package, noting number of vehicles affected and corresponding discrepancies.

METROLINK/DAILY INSPECTION SHEET

Location: Date: Time:

Locomotive #: Car #: Control Cab #:

CAR - CLEANING

1.0 INTERIOR

1.1 Pick up all debris, empty trash containers, and replace trash bags throughout interior of car.
1.2 Vacuum all carpet areas, floors, seats, in between seats, heater box, and door tracks – and sweep & mop vinyl floors.
1.3 Remove all foreign matter (i.e., gum, scuff marks, finger prints, stains, graffiti, etc.) from doors, tables, walls, seats, etc.
1.4 Clean windows, window-sills, & wind screens.
1.5 Clean and disinfect drinking fountains
1.6 Restock all supplies – literature for holders and drinking cups.

2.0 RESTROOMS

2.1 Dump holding tanks.
2.2 Clean and disinfect toilets, and clean sinks, mirrors,
2.3 Refill potable water tanks.
2.4 Inspect flushing mechanism, and replenish disinfectant tank as required.
2.5 Replenish supply spares (i.e., liquid soap, emergency toilet cleanout kit, toilet paper & paper towels, out-of-service signs.

3.0 CAB

3.1 Clean console, exterior side mirrors (left & right sides) & windows.
3.2 Replenish crew supply of paper towels.

The above listed tasks have been performed. Signature: [redacted]

CAR - ELECTRICAL

1.0 INTERIOR

1.1 Check the condition and function of doors, lights, PA, heating, cooling, and exhaust systems.
1.2 Secure all panel latches.

2.0 CAB

2.1 Check blended brake operations.
2.2 Check TMS penalty brake operation and test resets.
2.3 Voice test radio.
2.4 Check exposed wiring and switches.
2.5 Perform ATS tests and record results on form SMP100 (MAP100).

3.0 EXTERIOR

3.1 Inspect all jumper cables to ensure they are secured and free from damage.

The above listed task have been performed. Signature: [redacted]

CAR - MECHANICAL

1.0 INTERIOR

1.1 Check all door mechanisms and drinking fountains for proper function, and for properly secured cabinet panels & ceiling hatches.
1.2 Check condition of all weather stripping, seats, walls, ceiling, flooring, and carpeting.
1.3 Ensure that first aid kits, fire extinguishers, emergency tools, and flashlight are properly secured & sealed.
1.4 Ensure the required decals and markings for proper location, completeness, and legibility.

2.0 RESTROOMS

2.1 Check condition of all sinks, toilets, soap dispensers, towel dispensers, and waste disposal containers.
2.2 Check for proper operation of sinks & toilets and adequate water seal.

3.0 BETWEEN CARS

3.1 Check condition of walk plates, curtains, and for properly secured safety bars.
3.2 Inspect handbrake.

4.0 CAB

4.1 Check condition of side view mirrors (left & right), and sun visor.
4.2 Replenish supply of fuses (12) in proper container.
4.3 Check for red flag, compliant first aid kit (in addition to one in B-end of coach), and spare communication and electrical cables.
4.4 Perform Class 1 brake test and record on form SMP100 (MAP100).

5.0 EXTERIOR

5.1 Check condition of car body exterior, steps, windows, lights, skirts, under carriage, brake pads & shoes, brake rigging, wheels, truck frames, air bags, ground straps, and discs.
5.2 Drain moisture (as required) from main reservoir tank.

The above listed task have been performed. Signature: [redacted]

NOTE: All discrepancies found and corresponding corrective actions taken to eliminate them, must be reported on sheet 4 of this document package, noting number of vehicles affected and corresponding discrepancies.

METROLINK/92 DAY INSPECTION COACH/CAB CAR #177

Location: #2081 Date Shopped 1-07-05

K ID	Description	Completed By:

Dumping, Sanitization and Watering

C-C 1001 Empty and sanitize toilet retention tank. [redacted]

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.

C-C 1002 Sanitize and fill potable water tanks. [redacted]

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:
   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.
   a) test water using white color "ph" testing paper at drinking fountain
   b) 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.

C-C 1003 Replenish biocide disinfectant. [redacted] 1-18-05

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.

Task ID	Description	Completed By:

Under Frame Inspection

C-C 1004 **Inspect condition of uncoupling lever and brackets.** [redacted]

Ensure uncoupling lever is not cracked, broken or bent and operate as intended. Close knuckle and operate uncoupling lever and check that the lever rotates the rotary lock lift lever, which opens the lock and knuckle. Inspect for loose or missing hardware securing uncoupling lever brackets.

C-C 1005* **Inspect & gauge knuckle, coupler and check slack.** [redacted]

Gauge coupler, checking, Guard Arm Distortion, Contour Wear, Knuckle Nose and Knuckle Stretch. Draft gear components, pocket and coupler pin must be inspected for slack or wear. Using a long bar between the coupler horn and striker face and prying outward, measure the distance between the coupler horn and the striker face. Then move the coupler in as far as possible towards the draft gear and again measure the distance between the coupler horn and the striker face. The distance between the two is the amount of free slack in the draft gear and coupler arrangement. Total slack must not exceed 1/2". Check anti-creep protection.

Total slack Front 1/16 Rear 1/8

C-C 1006* **Check & record coupler height.** [redacted]

Check and record the following measurements:

	Front	Rear	Clearance Limits
Coupler Height Above Top of Rail	33 1/2	33	31-1/2" Min. 34-1/2" Max.

Ensure coupler maintained in a level position. Check coupler bounce. Excessive couple bounce and coupler carrier ears not in contact with coupler pocket stop blocks indicate weak or broken coupler carrier springs. Replace worn coupler carrier ears and stop blocks if groove is worn into bottom of block.

,007* **Check and record specific gravity of each battery cell.** [redacted]

Left Side Battery Box						Right Side Battery Box					
Cell No.		Cell No.		Cell No.		Cell No.		Cell No.		Cell No.	
1	1.26	9		17	1.21	1		9		17	
2	1.23	10	1.23	18	1.26	2		10		18	
3	1.22	11	1.22	19	1.20	3		11		19	
4	1.25	12	1.21	20	1.23	4		12		20	
5	1.21	13	1.21	21	1.23	5		13		21	
6	1.21	14	1.23	22	1.22	6		14		22	
7	1.21	15	1.23	23	1.21	7		15		23	
8	1.22	16	1.23	24		8		16		24	

Facing Battery

Note: If distilled water has been added before check specific gravity, charge the batteries for a minimum of five (5) hours.

If the specific gravity is less than 1.15, replace battery.

After checking specific gravity, turn on as many low voltage load as possible (lights, open doors at door stations, headlights, etc.) Turn off the battery charger main breaker. Allow batteries to discharge for ten (10) minutes and check the voltage drop across each cell on car nos. 183-210, and each pair of cells on all other cars. If the voltage drops to a value lower than one (1) volt on any of the cells, replace the battery with the low cell.

Task ID	Description	Completed By:
C-C 1008	**Clean battery boxes and exterior of battery sets.** Place the battery switch in the off position and open the battery switch box and remove both fuses from the fuse holder. Open the battery boxes and extend the battery trays completely. *Do not use abrasive cleansers, wire brushes, or acid washes inside the battery compartments.* Using clean water and a noncorrosive, non-caustic cleansing agent, wash the interior of the battery boxes and the exterior of the battery set.	[redacted]
C-C 1009	**Inspect battery & fluid level, add de-ionized water if needed.** Visually check batteries for cracks. Battery should be tight in tray with blocking in place. Inspect cables, terminals, connectors and terminal bars. Excessive water consumption indicates too high a charging voltage and little or no water consumption indicates that a battery is being inadequately charged. The electrolyte levels are visible through the plastic containers of the cells and have upper and lower lines on the containers to indicate the maximum and minimum levels. The cells need to be topped-up with distilled or de-ionized water when the electrolyte level is midway between the lower and upper line. Avoid leaks and spills. Note: An electrolyte spill can be neutralized with baking soda. Flush area with large amounts of fresh water once neutralized.	[redacted]
C-C 1010	**Coat battery terminals and lubricate battery tray rails.** With battery terminal wires and jumper bars disconnected, use clean water, a soft bristle brush and noncorrosive, non-caustic cleansing agent to clean all connections. Coat all terminals using Nifecote or a suitable approved substitute. Install jumper bars and connect battery terminal wires. Lubricate rails on the battery tray and ensure trolley moves freely.	[redacted]
1011	**Inspect battery compartment and switch box.** Inspect battery compartment and cover for damage, Ensure locking devices are in place and are effective. Apply battery compartment cover and secure with hardware. Inspect switch box, cover and latches. Clean battery switch box, install the fuses in the fuse holder and place the battery switch in the on position.	[redacted]

Task ID Description

Completed By: [redacted]

C-C 1012* **Record wheel measurements.**

Record wheel measurements

	Flange Ht.	Flange Th.	Rim Th.
	Max. 1-1/2"	Min. 1"	Min. 1"
Gauge readings	24	8	16
Wheel No.1	20	2	18
Wheel No.2	20	2	19
Wheel No. 3	20	3	21
Wheel No. 4	19	2	21
Wheel No. 5	19	2	22
Wheel No. 6	20	0	22
Wheel No. 7	20	3	23
Wheel No. 8	19	2	23

Notify Supervisor if readings are at these points:

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

[redacted]

C-C 1013 **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
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.

Task ID	Description	Completed By:
C-C 1014*	**Inspect and record brake disc measurements.**	[redacted]

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.

Disc Wheel 1 Axle Serial No. LA125

Measurements

	1st	2nd	3rd		Smallest Value	Disc Renewed
Outside Wall Thickness	.911	.898	.909		.898	
Inside Wall Thickness	.829	.824	.802	=	.802	Yes ____ No ____
Face-to-Face	3659	3695	3663		3659	

Disc Wheel 5 Axle Serial No. S 020

Measurements

	1st	2nd	3rd		Smallest Value	Disc Renewed
Outside Wall Thickness	.875	.874	.863		.863	
Inside Wall Thickness	.837	.821	.871	=	.821	Yes ____ No ____
Face-to-Face	3655	3661	3675		3655	

Disc Wheel 4 Axle Serial No. LA 353

Measurements

	1st	2nd	3rd		Smallest Value	Disc Renewed
Outside Wall Thickness	.903	875	.887		875	
Inside Wall Thickness	.811	.807	.825	=	.807	Yes ____ No ____
Face-to-Face	3662	3665	3669		3662	

Disc Wheel 8 Axle Serial No. LA 425

Measurements

	1st	2nd	3rd		Smallest Value	Disc Renewed
Outside Wall Thickness	.882	.880	.891		.880	
Inside Wall Thickness	.811	.822	.838	=	.811	Yes ____ No ____
Face-to-Face	3653	3650	3693		3650	

Task ID	Description	Completed By:
C-C 1015	**Inspect MU and communication cables and receptacles.** Inspect condition of MU and communication cables. Inspect condition of insulation and for signs of a stretched cable. Ensure covers are not missing, broken or cracked, are spring loaded and operate properly. Check for broken receptacle pins. Check the mica insulating plate for cracks and mounting hardware in place and secure. Inspect for dirt/moisture contamination. Remove dirt and debris using air pressure using an electrical cleaner if needed.	[redacted]
C-C 1016	**Inspect HEP cables, receptacles and 480V decals.** Inspect HEP cables for cracks, cuts, damaged insulation or signs of a stretched cable. Check for broken, flashed or partially missing pins. Ensure covers are not missing, broken, cracked and are functioning properly. Ensure "DANGER" - 480 Volt" or Danger - High Voltage decals are in place at each HEP receptacle and are legible.	[redacted]
C-C 1017	**Inspect train line hoses, piping and valves.** Inspect brake pipe and main reservoir hoses for cuts, debris damage, or evidence of being collapsed. Inspect condition of glad-hand and gasket. Ensure dummy couplings are not damaged and secured to the car. Attach free end air hose to dummy coupling. Inspect angle valves and end valves for damage. Make sure handles are not bent or broke spring is in place and effective, and the stops prevent movement of handle in the open position.	[redacted]
C-C 1018	**Inspect draft gear, yoke, coupler & coupler carrier.** Inspect coupler body and parts, yokes, and connections for cracks, broken or missing parts. Replace coupler if cracking is found in the pin protector boss or pivot lug, or if portion of the pin protector boss are missing or broken. To ensure proper locking of coupler, check for the presence of an inverted U-shaped notch located in the lower edge of both side walls of the lock hole shroud. When this recess is clear and unobstructed, the knuckle is properly locked. Inspect draft gear for signs of separation from its substrate or any signs of surface cuts or splits. Separations, cuts, or splits may not exceed 1-1/2 inches in length and 3/4 inch in depth. Check for slack in the rubber pad assembly indicating draft gear is loose in the pocket. Replace the yoke bushings if the inside diameters are worn to 3-3/16 inch.	[redacted]
C-C 1019	**Inspect truck frames, bolsters and ground straps.** Inspect truck frame and bolster for cracks that may effect structural integrity. Ensure ground straps are in place and properly secured.	[redacted]
C-C 1020	**Inspect bolster anchor assemblies, brackets and hardware.** Ensure drag link and bracket and bolster link assembly is not cracked, broken or damaged and is properly secured.	[redacted]
C-C 1021	**Inspect air spring assemblies and chevron springs.** Inspect the air spring rubber assembly for grease and oil contamination, cuts, tears, and excessive abrasion. Closely inspect the rubber around the girdle hoop. Visually check that the leveling valve lever is in the horizontal position. Use spring height GO/NOGO gauge, measure spring height. The normal working height of the air spring is 8-7/8 inches. Also check the position of the truck locking bolt where it passes through the truck locking bracket. Nominal clearance is 3/8 in. and minimum clearance is 1/8 in. Correct centering is equal spacing between truck locking bolt and truck locking bracket. If not in proper position, problem may be broken or missing stabilizer bars or leaking air spring assemblies.	[redacted]

Task ID	Description	Completed By:
C-C 1022	**Inspect vertical & lateral dampers and friction snubbers.** Inspect dampers for broken, or missing mounting hardware, cracked or broken mounting bracket. Check for oil leakage and the reservoir tube wet with oil. Inspect for damaged or dented casings.	[redacted]
C-C 1023	**Inspect laminated traction and side bearer pads.** Check pads for proper position and are not damaged or show indications of stress. Check for sharp metal edges in contact with the free rubber surface. Remove burrs carefully using a file. Do not damage the rubber surface. Inspect and replace pads that have cracks or splits that exceed a depth of 3/8 in.	[redacted]
C-C 1024*	**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.	[redacted]
C-C 1025	**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-bas grease (WABCO M-7672-01).	[redacted]
C-C 1026	**Inspect pedestal tie bars.** Inspect for damage and is properly secured.	[redacted]
C-C 1027	**Inspect wheel slide speed sensors, check air gap and cabling.** Verify the green wheel slide failure (WSF) indicator light located below the E-7 decelostat controller at the "A" end of the car is illuminated. Inspect and adjust the wheel slide speed sensors. Check the gap between the magnetic pickup assembly and the split hear. Gap should be 0.025 in ± 0.005 in. Use low pressure air (less than 30 psig) to clean and blow off any excessive buildup of dirt.	
C-C 1028	**Inspect cabling, conduit, piping and connections.** Inspect under car for indication of a debris strike. Inspect under car wiring and clamps, piping, connections, unions, joints, valves and handles for damage.	[redacted]

Task ID	Description	Completed By:
	Car Exterior	
C-C 1029	**Inspect sides of car, end caps, and diaphragms.** Inspect body panels for damage creating jagged or sharp edges. Check for and remove any signs of graffiti.	[redacted]
C-C 1030	**Inspect side door, access and inspection panels.** Inspect doors and area around doors for damage, jagged or sharp edges. Ensure door windows are not cracked or broken and window gaskets are not torn cracked and are in place. Inspect the truck inspection panels and ensure panels and latches are not damaged, hinge and hinge pin are in place and secured. Inspect condition of cable, hook and bracket at each panel.	
C-C 1031	**Inspect condition of car number, authority & locator decals.** Ensure that all number signs, authority logos, and car locator decals are in place, legible, and not discolored or faded.	[redacted]
C-C 1032	**Inspect condition of wheelchair, no smoking and bike decals.** Ensure that each decal is in its proper place, legible, and not discolored or faded.	
C-C 1033	**Inspect emergency window access & removal decals.** Each emergency access window must have a fireman locator decal and an emergency window removal decal that provides instructions for operation or removal. Decals must be retro-reflective material. Decals must be in place, legible, and not faded or peeling.	[redacted]
C-C 1034	**Check emergency door locator & instruction decals.** Emergency access door locator and instruction decals must be displayed adjacent to each emergency door pull box at doors 3, 5, 4 and 6. Decals must be retro-reflective material. Decals must in place, legible and not faded or peeling.	[redacted]
C-C 1035	**Inspect all windows and condition of gaskets.** Ensure glass is not cracked or broken, window gaskets are in place and not torn. Emergency window filler gaskets split is at the bottom of the window with a 1 inch separation.	[redacted]
C-C 1036	**Inspect sill steps , horizontal and vertical handholds.** Ensure all sill steps are secure with no indication of loose bolts or fasteners. Inspect for shiny areas or rust around fastener heads indicating the fastener may be loose. With bolt heads and nuts welded, check for broken welds. Ensure steps are not bent, cracked or broken. Outside edge of the tread shall not be more than 2" inside the side of the car. Check that the PVC roof drain is in place, and not broken or damaged. Ensure all handholds are secure with a minimum 2 inches of clearance, not cracked or broken. Check for obstructions preventing the use of the handhold.	[redacted]
C-C 1037	**Inspect condition of evaporator, condenser & speaker grilles.** Inspect grilles on each side of car. Ensure each is properly secured and not damaged. Check that grills are clean and not obstructed.	[redacted]
C-C 1038	**Inspect condition of indicator lights.** Ensure indicator lights and housing is not broken or damaged and operate as intended. Repair or replace indicator lights found defective.	[redacted]

Task ID	Description	Completed By:
C-C 1039	**Inspect passenger door open assembly.** Check hardware for proper securement and for sharp edges.	[redacted]
C 1040	**Inspect side door steps and yellow anti-slip edge material.** Exterior side steps must be free of tripping hazards. Check for damage resulting from vandalism or from a debris strike. Step grates must not be cracked, broken, bent and properly secured. Ensure the yellow anti-slip material is applied to the outer edge of the step surface, clean and effective.	[redacted]

Cab Car Exterior

CC-C 1001	**Inspect headlight and auxiliary light housings.** Inspect for damage and housings are properly secured.	[redacted]
CC-C 1002	**Inspect number and marker light housings.** Inspect for damage and housings are properly secured.	
CC-C 1003*	**Inspect front pilot height.** Front Pilot/Plow Height — Left: ____ Right: ____ 3" Min. 6" Max.	
CC-C 1004	**Inspect end door, window, barrier bar and curtain.**	
CC-C 1005	**Visually inspect upper horn (if equipped) and bell.**	
CC-C 1006	**Inspect lower horn, housing and piping.** Check for indications of damage caused by a debris strike.	
CC-C 1007	**Inspect axle generator and cabling.**	

Car Interior

C-C 1041	**Inspect condition and securement of seats.** Ensure hardware securing seat shells to frame and hardware securing frame to wall mounted frames is not loose. Ensure arm rests and seat dividers are secured.	[redacted]
C-C 1042	**Inspect ADA folding seats and wheelchair restraints.** Ensure ADA seats raise and lock in the up position and can be lowered using the release handle. Ensure folding legs are not missing, bent, broken or inoperative.	[redacted]
C-C 1043	**Inspect ADA wheelchair ramp and securement.** Ensure wheel chair ramp is not damaged or broken. Check hinges for damage. Tie down straps should be tight and bottom strap secured properly.	[redacted]
C-C 1044	**Inspect condition and securement of tables.** Check for sharp edges on tables. Replace table top if chipped or cracked. Ensure hardware securing table pedestal at top table and floor mount is tight.	[redacted]
C-C 1045	**Inspect condition of ceiling panels and trim.** Ensure panels and molding is not cracked or broken and molding is in proper position.	[redacted]
C-C 1046	**Inspect condition of window and cove frieze panels.** Ensure cove panels are not cracked, broken, or damaged.	[redacted]
C-C 1047	**Inspect condition of carpet and exit path marking.** Inspect for conditions that may cause a tripping hazard. Check that "T" caps are in place and flush with carpet or tile and do not create a tripping hazard. Ensure low location exit path strips are secured to the sub floor and do not create a tripping hazard.	[redacted]

Task ID	Description	Completed By:
C-C 1048	**Inspect condition of windows and gaskets.** Check for windows that are cracked or broken. Inspect for graffiti etched in window or gasket. Check for gaskets that appear to sag, indicated inner portion of gasket is cut.	[redacted]
C-C 1049	**Check for low voltage grounds.**	[redacted] 15 MAR-05
C-C 1050	**Check for high voltage system grounds.**	
C-C 1051	**Inspect interior lighting.** Ensure all lighting throughout car is working properly. Replace burned out lamps and ballast as needed. Ensure cove light lens and caps are not broken or cracked.	
C-C 1052	**Inspect and test emergency lighting.** Ensure emergency lighting operates as intended: a) Ensure the battery switch is in the ON position. b) Ensure all circuit breakers for interior lights are up or closed. c) Open or turn off the "FWD MAIN SERVICES" and "REAR MAIN SERVICES" circuit breakers. d) Check upper level, mid-level and lower level to ensure emergency lighting operates as intended. e) Turn "FWD and REAR" Main Services circuit breakers on.	
C-C 1053*	**Measure & record pull force of emergency exit windows.** Randomly select four (4) interior emergency exit windows and perform a manual pull test using a pull force indicator to measure the force required to remove windows. Check form SMP 200 completed at time of last maintenance to avoid testing the same windows. **Maximum Pull Forces:** Cars Numbered **101-182**, Cab Cars **601-637**: 60 lbs. Maximum allowable pull force when measured at an angle parallel to the floor. Cars Numbered **183-210**: 30 lbs. Maximum allowable pull force when measured at a 30 to 60 degree angle to the floor. **Important Note:** If any defective condition is noted on any of the windows in the car or if the pull force limit is exceeded on any of the four (4) windows tested, ***ALL*** of the emergency windows must be tested. Form SMP 200, Emergency Window Tests, must be completed and retained for two (2) years in the car's maintenance file.	[redacted]
C-C 1054	**Inspect emergency exit window decals.** All emergency window exits must be identified with EXIT decals including window removal instructions of photo luminescent material. The decals must be in place, legible, not faded or peeling.	[redacted]
C-C 1055	**Check emergency brake valve cable pull and decals.** Ensure handles are in place, not obstructed from use and decals are in place and legible.	
C-C 1056	**Check emergency flashlight, tools and first aid kit.** Inspect condition of frangible glass, gasket and pull ring if equipped. Check that emergency equipment, including emergency flashlight, saw, sledge hammer, pry bar, axe, and a maul is in place and in serviceable condition. Observe LED on flashlight is flashing indicating batteries are in serviceable condition. Inspect condition of bracket and that seal is in tact. Ensure first aid kit is in place and sealed (shrink wrapped). If not sealed, replace first aid kit.	
C 157	**Inspect and test destination sign controller and signs.** Check operation of destination sign controller and signs ensuring it is operating as intended.	[redacted]

Task ID	Description	Completed By
C-C 1058	**Check drinking water fountain.** Check operation of water fountain and inspect for broken or damaged parts. Water pressure should be approx. 14 lbs.	[redacted]
1059	**Inspect condition of steps and handrails.** Ensure nosing on all steps is not loose and matches the level of the flooring material and is of a contrasting color. Repair or replace loose carpeting, step riser material, and nosing if tripping hazard is found. Handrails must be secure and provide at least 2 inches of usable clearance.	[redacted]
C-C 1060	**Inspect and operate end doors.** Adjust end door closer mechanism or use speed adjusting screw as need for correct operation. Closing force of on door panel leading edge should be approximately 5 lbs. Inspect weather stripping for damage. Lubricate the top hung sliding end doors and hinges on cab car end doors using DriSlide.	[redacted]
C-C 1061	**Inspect all door motors and associated hardware.** Tighten any leaking hose connections. When any internal leakage is found, replace the door motor assembly. Check the electro pneumatic valves for air leaks. If leaks are found, replace the valve.	[redacted]
C-C 1062	**Inspect & test door operation from both door control stations.** Check both door control stations for loose hardware, check all terminal connections for tightness and continuity, the slide panel completely clears door buttons, and the PA/INT indicator lights function. Clean away any dust or lint using low pressure dry compressed air. Clean and apply DriSlide, a molybdenum disulfide lubricant to the side door ball retainers. Test all door functions from each door control station including the door enable feature and the crew door. Check that the door control system energizes the doors by observing that each door open and close in a smooth, complete way checking: a) the doors open and close simultaneously at each door entrance. b) with the doors closed, check that the door rubber seals fit properly and that no gaps exist. c) if the door drags, check by a problem with the door tracking. d) if a door does not open or close fully, there is a problem with the door linkage. Check for worn or frayed bristles on brush seals. And worn or torn rubber seals. Door operator adjustment screw are located on the large cylinder of the door motor operator. Adjust screws include: **Door Cushioning Adjustment:** Use for adjusting the door's cushioning to prevent the door from slamming open and recoiling. Rotate the screw clockwise for more cushioning, or counterclockwise for less cushioning. Make all adjustments in small increments (1/4 turn or less. **Door Opening Speed Adjustment:** Door opening speed should be 1.6 to 2.0 seconds. Rotate the screw clockwise to increase opening speed or counterclockwise to decrease opening speed. Make adjustments in small increments (1/4 turn or less). **Door Closing Speed Adjustment:** Door closing speed should be 2.0 to 2.6 seconds. Rotate the screw clockwise to increase door closing speed or counterclockwise to decrease door closing speed. Make adjustments in small increments (1/4 turn or less).	[redacted]

Task ID	Description	Completed By:
C-C 1063	**Check ADA sonalert, door lights and exterior indicator lights.** Sonalert alarm sounds intermittently and starts when door close buttons are energized and should sound for 2 - 3 seconds before doors begin to close. White door lights will also begin to flash when door close buttons are energized and continues until doors are closed.	[redacted]
C-C 1064	**Check operation and Db level of PA and intercom.**	[redacted]
C-C 1065	**Inspect diaphragms, vestibule curtains and walkway plates.** Diaphragms: Inspect aluminum mounting plate, sponge return spring, stainless steel fasteners and the graphite phenol resin wear plate. Check tightness of hardware, holes or tears in rubber parts, cracks or broken wear plates, bent or cracked face plate or mounting plate. Vestibule Curtains: Inspect upper and lower roller brackets for damage, curtains for holes or tears, and curtains recoil properly and are spring loaded. Check footing condition in walkway areas including the effectiveness of yellow anti slip surface. Replace walkway plugs if missing.	[redacted]
C-C 1066	**Inspect, lubricate and test handbrake.** Inspect handbrake rigging for wear and free movement. Lubricate lever fulcrum pins. Adjust cable slack, if required, and ensure slack adjuster	[redacted]
C-C 1067	**Inspect and test emergency door pull cable rings.** Ensure that the frangible plastic cover is in serviceable condition and is not cracked or broken. Remove the cover housing, pull the cable ring until the door opens or releases sufficiently to be opened manually. Ensure cable is free moving and not frayed. Replace cover housing and tighten hardware.	[redacted]
C 068	**Inspect emergency exit door decals.** Decals must be in place located at emergency door pull locations at doors 3, 5, 4 and 6. Decals must be of photo luminescent material, must be legible, not faded or peeling.	[redacted]
C-C 1069	**Inspect emergency evacuation, safety & system map posters.** Inspect poster frames for sharp edges. Emergency evacuation poster must be displayed in frame located on lower level on sloped wall "A" end of car. Check for graffiti and not bent or creased.	[redacted]
C-C 1070	**Inspect electrical cabinets and lockers and check decals.** Inspect wiring and insulation, check all electrical components for indications of overheating. Check to ensure wires are firmly attached and routed properly. Check circuit breakers ensuring that each spring and latch when closed and circuit breaker does not bind. Check battery charging. Open the access panel at the "B" end circuit breaker panel. Check the battery status monitor for the following: a) Status Normal green lamp is illuminated. b) Battery Percent Capacity meter registers a reading above 50. c) No red lamps are illuminated. Ensure "DANGER - High Voltage" decals are in place and legible on hi-voltage cabinet.	[redacted]

Task ID	Description	Completed By:
C-C 1071	**Check all fire extinguishers.** Remove fire extinguisher and ensure seal is not missing or broken. Check that gauge is not damaged and needle is in the green zone indicating proper pressure. Check for defects in the hose, nozzle, corrosion to canister and other visible defects. Ensure inspection tag is in date (1 year) and will remain in date before next maintenance due date (92 days). Clean compartment, inspect housing and frangible glass. Place fire extinguisher in holder, and is secure.	[redacted]
C-C 1072	**Self test E-7 wheel slide system and correct faults if required.**	[redacted]
C-C 1073	**Inspect HVAC.** a) Check the oil level in the compressor crankcase sight glass. The level should be approximately 1/2 the sight glass. b) Check all electrical circuits for continuity and tight connections. c) Check the following for grounds, using a 500 V megger, a 1 megohm or greater is acceptable: 1. Compressor motor 2. Condenser fan motor 3. Evaporator blower/motor d) Inspect the motors for dirt, friction, vibration, and proper rotation. Vacuum any dirt from the motor. e) Check the oil and refrigerant levels during steady state operating conditions (275 psig discharge pressure and 70 psig suction pressure). f) Check the refrigerant lines for leaks using a leak detector. g) If necessary, repair leak and add refrigerant and oil. h) Monitor the moisture and liquid indicator to determine the system dryness of refrigerant. If a condition other than Safe or Dry is indicated, change the filter-drier assembly. i) Inspect the resilient mounts for set or surface cracks. j) Inspect the surface of the condenser and evaporator coil. Remove any major blockage and clean the surface. k) Inspect the drain pan under the evaporator coil and the drain lines to ensure free water drainage. l) Clean the temperature sensors and thermostats with a soft cloth. m) Lubricate evaporator fan shaft bearings and condenser and evaporator motor bearings with grease. Check alignment tension and condition of fan belts and couplings. If the belt is correctly tensioned, the belt should deflect 1/4 inch at the center of the span if a force of 8 lbs. is applied at that point perpendicular to the belt. n) Test the HVAC system with the heating and air conditioning sequence tester.	[redacted]
C-C 1074	**Inspect condition & securement of windscreens.** Ensure glass wind screens are not broken or cracked with no sharp edges, and are secure in mountings.	[redacted]
C-C 1075	**Inspect condition of bicycle rack securement.** Check securement of brackets and condition of nylon cord.	[redacted]
C-C 1076	**Inspect vertical handholds and handrails.** Ensure all handholds and handrails are properly secured checking for loose bolts or fasteners with at least 2 inches of clearance. Ensure handholds are not bent with no obstruction preventing its use.	[redacted]
C-C 1077	**Inspect heater strip and air filter grilles.** Inspect for loose or missing hardware securing the heater grill or air filter grill. Ensure latches securing the air grilles function properly and tightly secures the air grill in place.	[redacted]

Task ID	Description	Completed By:
CC-C 1078	**Inspect all access panel doors and latches.** Ensure all access panel doors, hinges and latches are not broken or damaged. Secure all panel door latches upon completion of inspection.	[redacted]
CC-C 1079	**Inspect condition of all trash receptacles.** Inspect trash receptacles for damage, being bent, cracked, or having sharp corners or edges.	[redacted]
	Cab Car Interior	
CC-C 1008	**Inspect wheelchair storage partitions.** Check for loose or missing hardware securing each panel to the brackets. Ensure panels are not cracked broken or chipped.	
CC-C 1009	**Inspect compartment door, door latch and door stop.**	
CC-C 1010	**Check instrument panel, cab, and indicator lights.** Inspect all gauge and panel lights including speed indicator and gauge dimmer switch. Operate push to test feature to verify lamps are working properly.	
CC-C 1011	**Test air brake, safety controls and warning devices.** Check operation of 26B automatic brake valve it functions as intended in all positions. Test graduated release feature, TMS and emergency.	
CC-C 1012	**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.	
CC-C 1013	**Test air brake gauges.** Verify accuracy of each needle (4) using a CO_2 tester at 100 lbs. of pressure	
CC-C 1014	**Perform brake pipe leakage test.** Brake pipe leakage must not exceed 3 lbs. per minute.	
CC-C 1015	**Check controller for proper operation.** Ensure controller and reverser interlock as intended. Check electrical cannon plug under desk top to ensure connection is tight.	
CC-C 1016	**Ensure proper operation of all exterior lights.** 1) Front Headlight (all positions). 2) Auxiliary lights (steady state and flashing). 3) Marker lights.	
CC-C 1017	**Check speed recorder.**	
CC-C 1018	**Inspect cab seat and mounting.** Ensure operators seat is securely mounted and is adjustable.	
CC-C 1019	**Inspect cab window, mirrors, and sun visor.** Ensure cab windows and windshields are not cracked or broken and provide a clear unobstructed view. Ensure mirror is not damaged, cracked or broken. Check condition of mounting bracket and that hardware is not loose or missing. Inspect condition of sun visor.	
CC-C 1020	**Inspect and test windshield wiper.** Ensure windshield wiper blades are in good serviceable condition and windshield wiper(s) are operating properly.	

Task ID	Description	Completed By:
CC-C 1021	**Check operation of ATS.** Verify ATS receiver is properly secured and the washboards are aligned. Perform a slap test. Perform ATS test and complete form SMP 8.	
CC-C 1022	**Inspect, download, reset time & seal event recorder.**	
CC-C 1023*	**Check radio output using Watt meter and voice test radio.**	
CC-C 1024*	**Test and record Db level of horn and test bell.** Using a sound level meter, within 1 yr. Of calibration, position meter 100 ft. forward of cab car with the microphone 4 ft. above ground at centerline of track. Minimum sound level of 96db(A) must be registered. Sign and attach sound level printout to cab car maintenance file.	
CC-C 1025	**Inspect crew locker door and door latch hardware.**	
CC-C 1026	**Inspect crew locker light and test on/off switch.** Inspect light bracket, hardware and protective lens cover. Check on/off switch is functioning.	
CC-C 1027	**Check "Quiet Area" sign, bracket and nylon cord.** Replace sign if missing, illegible, cracked or broken. Check condition of nylon cord and wall mounted bracket and hardware.	
CC-C 1028	**Check condition of "Compliant" first aid kit.** Ensure "FRA/CPUC" compliant first aid is available and sealed (shrink wrapped). Ensure contents of kit is on back side of container and legible. Replace first aid kit if seal is broken.	
CC-C 1029	**Check air hoses, wrench, supplies, and condition of step.** Supplies should include: 1 red flag, 12 fuses, pipe wrench, brake pipe hose.	
CC-C 1030	**Stencil PM date on handbrake cover.**	
CC-C 1031	**Complete form FRA F6180-49A (Blue Card).**	
	Restroom	
C-C 1080	**Inspect the two section sliding doors.** Inspect the door tracks for excessive wear or foreign material that may interfere with proper door operation. Inspect the door panels and door hanger track for signs of excessive wear or damage. Access the door hanger track by unlocking the three locks that secure the hinged vestibule ceiling panel and lower panel. With the doors closed, doors should be parallel to header and jamb. Operate door to check that the bottom guides engage in bottom track and door lock properly engages the striker plate. Adjust the door tracks using the hanger nuts. Adjust doors for smooth operation and correct vibration. Clean door track and apply DriSlide to lubricate roller bearing track.	[redacted]
C-C 1081	**Inspect condition of handholds.** Ensure handholds are properly secured and provide 2 inches of usable clearance.	[redacted]
C-C 1082	**Inspect ceiling and plumbing compartment light.**	[redacted]
C-C 1083	**Inspect sink vanity mirror and wall mounted mirror.** Ensure mirrors are not cracked or broken and is properly secured.	[redacted]
C 1084	**Inspect access panel and compartment type doors.**	[redacted]

Task ID	Description	Completed By:
C-C 1085	**Check operation of toilet and sink.** Check toilet flush timing cycle, check for proper metering of water and biocide. Ensure adequate water seal is maintained in bowl. Check water pressure at sink, (14 psi) and ensure water spring loaded faucet plunger operates as intended and water does not drip.	[redacted]
C-C 1086	**Renew coalescent and particulate filters.** Remove and clean threaded polycarbonate bowl and renew coalescent and particulate filter elements.	[redacted]
C-C 1087	**Renew water cooler filter.** 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]
C-C 1088	**Inspect exhaust fan & components in plumbing compartment.**	[redacted]
C-C 1089	**Inspect condition of floor, wall panels and molding.** Inspect floor for tripping hazards, and check wall panels and molding for being cracked or broken.	

Cab Car Interior Cleaning

CC-CL 1001	**Clean console, side and upper switch and indicator panels.**	[redacted] (tch tch)
CC-CL 1002	**Clean ceiling and wall panels.**	
CC-CL 1003	**Clean seat and windows.**	
CC-CL 1004	**Sweep and mop floor.**	
CC-CL 1005	**Clean crew locker walls and ceiling.**	
CL 1006	**Sweep and mop crew locker floor.**	

Interior Cleaning

C-CL 1007	**Remove all trash (newspapers, cups, etc.).**	[redacted]
C-CL 1008	**Wash ceilings, side Kydex panels, and bulkheads.**	
C-CL 1009	**Wash wind screens and kickboards under seats.**	
C-CL 1010	**Clean handrails, stanchions, and handhold.**	
C-CL 1011	**Clean windows and glass windscreens.**	
C-CL 1012	**Inspect for and remove all graffiti.**	
C-CL 1013	**Empty trash receptacles and wash interior of receptacles.**	
C-CL 1014	**Clean exterior of trash receptacles and replace trash bag.**	
C-CL 1015	**Clean interior and exterior of cove light fixtures.**	
C-CL 1016	**Remove and clean air grilles over mid-to-upper level stairs.**	
C-CL 1017	**Clean air conditioning vents.**	
C-CL 1018	**Replace seat bottoms, backs and headrests as required.**	
C-CL 1019	**Clean seat shells, seat dividers and armrests.**	
C-CL 1020	**Vacuum seat backs and bottoms and clean headrests.**	
1021	**Clean area between wall and table. Clean and sanitize tables.**	
C-CL 1022	**Wipe down heater guards and heater boxes.**	
C-CL 1023	**Clean and disinfect water fountain including drain sink.**	

Task ID	Description	Completed By:
C-CL 1024	Clean end doors and floor tracks.	[redacted]
C-CL 1025	Clean diaphragms, vestibule curtains and walkway plates.	
C-CL 1026	Clean side doors, windows, and door tracks.	
	Completely clean dirt and debris in door track. Clean the guide slot of the door threshold. Remove any debris in the door pockets. Ensure drain holes are not plugged.	
C-CL 1027	Sweep and mop tile floors and steps.	[redacted]
C-CL 1028	Strip tile floors, reapply sealant if required and wax floors.	
C-CL 1029	Vacuum and shampoo all carpeted areas.	
	Car Exterior Cleaning	
C-CL 1030	Wash door pockets, car end caps, and diaphragms.	[redacted]
C-CL 1031	Clean side door step platforms and yellow anti slip surface.	
C-CL 1032	Clean cab car window(s).	
	Review and 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.	Signature: [redacted]

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

Serial Numbers Car 177 Date 01-17-05 Employee Signature [redacted]

A-End Truck 96250

B-End Truck 96245

Axle 1 Serial # LA 125

Axle 2 Serial # LA 353

Axle 3 Serial # S 020

Axle 4 Serial # LA 425

Wheel # 1 N/A

Wheel # 2 42266

Wheel # 3 42308

Wheel # 4 N/A

Wheel # 5 N/A

Wheel # 6 64283

Wheel # 7 42248

Wheel # 8 N/A

CENTRAL MAINTENANCE FACILITY - LOS ANGELES

EMERGENCY WINDOW TESTS

Date: 1-14-05 Work Order No.: _____ Car No.: 177

PROCEDURE

1) Randomly select four (4) emergency windows and perform a manual pull test using a digital force gage to measure and record the force required to remove windows.
2) Avoid testing more than two of the samples previously tested within the last 92-day PM cycle.
3) Record in the spaces provided below:
   a) Location codes listed on reverse side
   b) Force required to remove each window
   c) Acceptance as "Y" for Yes or "N" for No
      - **Coach Cars #101-182, and Cab Cars #601-637:** 60 lbs. Max. allowable woith angle of pull force parallel to floor.
      - **Coach Cars #183 & Higher, and Cab Cars #638 & Higher:** 20 to 30 lbs. Allowable with pull force at 30° to 60° angle to floor.
   d) Any appropriate remarks.

NOTE: If any defective condition is noted on any of the windows in the car or if the specified pull force limits are exceeded on any of the four (4) test samples, this will require all emergency windows in the car be tested—not just the initial four (4) test samples. In such cases, a notation must be recorded in the "Comments" section on the reverse side of this form to include: 1) which window(s) failed or defective condition(s) was/were found, 2) brief description of the failure(s)/defective condition(s), 3) that the corrective actions were satisfactorily completed, and 4) who corrected the problem along with corresponding date.

REFERENCES

- MIL-STD-105D, Sampling Procedures and Tables for Inspection by Attributes
- CFR Title 49, Section 239.107, (b) & (c).

Window Test Sample	Location Code	Force (lbs)	Accept Y	Accept N	Remarks
1	U4	46.6		✓	
2	U8	66.6		✓	
3	U12	70.0		✓	
4	U16	60.0		✓	

[redacted] INSPECTOR SIGNATURE

[redacted] SUPERVISOR SIGNATURE

CENTRAL MAINTENANCE FACILITY - LOS ANGELES

EMERGENCY WINDOW TESTS

Date: 1-14-05 Work Order No.: _____ Car No.: 177

PROCEDURE

1) Randomly select four (4) emergency windows and perform a manual pull test using a digital force gage to measure and record the force required to remove windows.
2) Avoid testing more than two of the samples previously tested within the last 92-day PM cycle.
3) Record in the spaces provided below:
   a) Location codes listed on reverse side
   b) Force required to remove each window
   c) Acceptance as "Y" for Yes or "N" for No
      - **Coach Cars #101- 182, and Cab Cars #601- 637:** 60 lbs. Max. allowable width angle of pull force parallel to floor.
      - **Coach Cars #183 & Higher, and Cab Cars #638 & Higher:** 20 to 30 lbs. Allowable with pull force at 30° to 60° angle to floor.
   d) Any appropriate remarks.

NOTE: If any defective condition is noted on any of the windows in the car or if the specified pull force limits are exceeded on any of the four (4) test samples, this will require all emergency windows in the car be tested—not just the initial four (4) test samples. In such cases, a notation must be recorded in the "Comments" section on the reverse side of this form to include: 1) which window(s) failed or defective condition(s) was/were found, 2) brief description of the failure(s)/defective condition(s), 3) that the corrective actions were satisfactorily completed, and 4) who corrected the problem along with corresponding date.

REFERENCES

- MIL-STD-105D, Sampling Procedures and Tables for Inspection by Attributes
- CFR Title 49, Section 239.107, (b) & (c).

Window Test Sample	Location Code	Force (lbs)	Accept Y	Accept N	Remarks
1	U3	64.5			
2	U7	67.7		N	
3	U11	71.1		N	
4	U15	59.3		N	

[redacted] INSPECTOR SIGNATURE

[redacted] SUPERVISOR SIGNATURE

CENTRAL MAINTENANCE FACILITY - LOS ANGELES

EMERGENCY WINDOW TESTS

Date: 1-14-05 Work Order No.: _____ Car No.: 177

PROCEDURE

1) Randomly select four (4) emergency windows and perform a manual pull test using a digital force gage to measure and record the force required to remove windows.
2) Avoid testing more than two of the samples previously tested within the last 92-day PM cycle.
3) Record in the spaces provided below:
   a) Location codes listed on reverse side
   b) Force required to remove each window
   c) Acceptance as "Y" for *Yes* or "N" for *No*
      - **Coach Cars #101-182, and Cab Cars #601-637:** 60 lbs. Max. allowable width angle of pull force parallel to floor.
      - **Coach Cars #183 & Higher, and Cab Cars #638 & Higher:** 20 to 30 lbs. Allowable with pull force at 30° to 60° angle to floor.
   d) Any appropriate remarks.

NOTE: If any defective condition is noted on any of the windows in the car or if the specified pull force limits are exceeded on any of the four (4) test samples, this will require all emergency windows in the car be tested—not just the initial four (4) test samples. In such cases, a notation must be recorded in the "Comments" section on the reverse side of this form to include: 1) which window(s) failed or defective condition(s) was/were found, 2) brief description of the failure(s)/defective condition(s), 3) that the corrective actions were satisfactorily completed, and 4) who corrected the problem along with corresponding date.

REFERENCES

- MIL-STD-105D, Sampling Procedures and Tables for Inspection by Attributes
- CFR Title 49, Section 239.107, (b) & (c).

Window Test Sample	Location Code	Force (lbs)	Accept Y	Accept N	Remarks
1	I3	75.0		✓	
2	I4	72.8		✓	
3	I9	56.9		✓	
4	I10	72.8		✓	

[redacted] INSPECTOR SIGNATURE

[redacted] SUPERVISOR SIGNATURE

CENTRAL MAINTENANCE FACILITY - LOS ANGELES

EMERGENCY WINDOW TESTS

Date: 1-14-05 Work Order No.: _____ Car No.: 177

PROCEDURE

1) Randomly select four (4) emergency windows and perform a manual pull test using a digital force gage to measure and record the force required to remove windows.
2) Avoid testing more than two of the samples previously tested within the last 92-day PM cycle.
3) Record in the spaces provided below:
   a) Location codes listed on reverse side
   b) Force required to remove each window
   c) Acceptance as "Y" for *Yes* or "N" for *No*
      - **Coach Cars #101-182, and Cab Cars #601-637:** 60 lbs. Max. allowable woith angle of pull force parallel to floor.
      - **Coach Cars #183 & Higher, and Cab Cars #638 & Higher:** 20 to 30 lbs. Allowable with pull force at 30° to 60° angle to floor.
   d) Any appropriate remarks.

NOTE: If any defective condition is noted on any of the windows in the car or if the specified pull force limits are exceeded on any of the four (4) test samples, this will require all emergency windows in the car be tested—not just the initial four (4) test samples. In such cases, a notation must be recorded in the "Comments" section on the reverse side of this form to include: 1) which window(s) failed or defective condition(s) was/were found, 2) brief description of the failure(s)/defective condition(s), 3) that the corrective actions were satisfactorily completed, and 4) who corrected the problem along with corresponding date.

REFERENCES

- MIL-STD-105D, Sampling Procedures and Tables for Inspection by Attributes
- CFR Title 49, Section 239.107, (b) & (c).

Window Test Sample	Location Code	Force (lbs)	Accept Y	Accept N	Remarks
1	L1	69.1		✓	
2	L2	67.5		✓	
3	L5	83.6		✓	
4	L6	83.0		✓	

[redacted] INSPECTOR SIGNATURE

[redacted] SUPERVISOR SIGNATURE

Car #148

BOMBARDIER
TRANSPORTATION

CENTRAL MAINTENANCE FACILITY

EQUIPMENT OUT OF SERVICE

1/6/05 4:03 PM

Equip #	In Date	W. O. #	REASON	Projected Out Date
855	12/27/04	377	3 Month Inspection / ~~WT~~ / Axle Air.	01/08/05
876	01/06/05	385	3 Month Inspection	01/10/05
886	12/29/04	379	3 Year Inspection	01/14/05
878	01/06/05	386	3 Year Inspection / Cam Shaft Stub	01/28/05
Capitals & Mods:	1. Traction Mtrs	2. HEP Fl Plates	3. HEP Hr Meter	4. Belly Pan / Transom	5. Pilot Hnd Hld	6. Yaw Damper	7. Cooling Fan
201	01/06/05	2079	3 Month Inspection	01/07/05 → Today
633	01/03/05	2068	3 Month Inspection / Carrier Irons	01/07/05 → Today
637	01/04/05	2074	3 Month Inspection	01/10/05
148	01/04/05	2072	12 Month Inspection	01/10/05 → Today
183	01/06/05	2082	12 Month Inspection	01/10/05
139	12/16/04	2025	3 Month Inspection / Mods: 11, 12, 13	01/11/05
609	12/27/04	2053	3 Month Inspection / B End Air Blower / Horn Valve BO	01/11/05
179	01/04/05	2073	12 Month Inspection	01/11/05
161	01/06/05	2078	3 Month Inspection	01/12/05
607	01/06/05	2080	12 Month Inspection	01/12/05

Capitals & Mods:	1. Strobe Lt Brkt	3. Comm Remvl	4. Roof Cut Away	5. Bio Counters		7. Duct Clean
8. Toilet Tank	9. HVAC	10. Dr Motors	11. Carpet	12. Toilet Shrd	13. LLEPM	14. Cndctrs Window	15. Dr Lf Gds	21. Trucks	22. Seat Mod
23. Window Gaskets	24. Aux Lights							Recurring Mods	

EQUIPMENT SERVICEABLE

LOCOMOTIVES	873	868						800
COACHES	101	107	6104	143				
COACHES								
CAB CARS	619							
ON HOLD	801	802	803					
SPECIAL								
DISPOSITION	113	634	608	174				

	"B"	"B" BO's	"BTR"	"BTR" BO's	Car
WHEEL SETS	6	12	2	2	OK - 13
Total TM's / TM's Built	5 - 1	2	1 - 0	4	BO - 35

METROLINK/DAILY INSPECTION SHEETS

Location: Cuyr

Date: 1-25-05 Time: [redacted]

Locomotive #: 873 Car #: 177 - 148

Control Cab #: 623

Inspection has been performed per CFR49, parts 229 & 238. Signature: [redacted]

LOCOMOTIVE - CLEANING

1.0 CAB
- 1.1 Pick up all debris, empty trash container, and replace trash bag.
- 1.2 Clean windshield (in & out), windows (in & out), and sweep floors.
- 1.3 Replenish drinking water and paper towels.

2.0 ENGINE ROOM & HEP
- 2.1 Pick up debris and rags.
- 2.2 Clean walkways, engine sump and light fixtures, and wipe down engine block.

3.0 EXTERIOR
- 3.1 Remove debris from walkways, and clean nose and fuel tanks as needed.
- 3.2 Refill locomotive fuel – no matter what level it is, and check sand level & replenish if below 1 foot minimum level.

The above listed tasks have been performed. Signature: [redacted]

LOCOMOTIVE - ELECTRICAL

1.0 CAB (Including Vestibule & Nose Compartments)
- 1.1 Check blended brakes, TMS penalty brakes and resets.
- 1.2 Voice test radio.
- 1.3 Perform ATS tests, and record results on form SMP100 (MAP100).
- 1.4 Perform ATS "Slap Test".
- 1.5 Check computer for faults.

2.0 ENGINE ROOM
- 2.1 Check HEP indicator lights, voltage & frequency
- 2.2 Check for spare MU & communication jumper cables - make sure they are available on rack.
- 2.3 Check hand-brake.

EXTERIOR
- 3.1 Inspect all jumper cables to ensure they are secured & free from damage.

I have performed the above listed tasks. Signature: [redacted]

LOCOMOTIVE - MECHANICAL

1.0 CAB (Including Vestibule & Nose Compartments)
- 1.1 Check condition of seats, walls, ceiling, floor, windows, & sun visor.
- 1.2 Check windshield wiper, door mechanisms, horn, bell for proper function.
- 1.3 Replenish supply of fuses (12) in proper container.
- 1.4 Check for red flag and first aid kit (compliance & sealed), and for spare B.P. & F.I.R. hoses.
- 1.5 Check hand brake operation & ensure correct date stenciling.
- 1.6 Check for proper operation of sanders.
- 1.7 Perform Class 1 brake test and record on SMP100 (MAP100).
- 1.8 Make sure that the GPS power supply is in the on position.

2.0 ENGINE ROOM & HEP
- 2.1 Check oil levels of main engine, HEP engine, air compressor, & governor (if low, determine cause); and bring to full mark.
- 2.2 Check coolant levels & concentration for main engine and HEP, and bring to full mark.
- 2.3 Check for fuel, oil, water, and exhaust leaks.
- 2.4 Check for unusual noises in engine, auxiliary blower, AR15 generator, air compressor, turbo, generator and HEP while running.
- 2.5 Check air compressor control air system, and drain intercooler and dirt-collector condensate.

3.0 EXTERIOR
- 3.1 Check condition of body, steps, ladders, walkways, windows, truck safety hangers, brake shoes, and wheels.
- 3.2 Drain moisture (as required) from main reservoir tank.
- 3.3 Check brake shoes for proper clearance & alignment (no overlapping), and side bearing clearance.
- 3.4 Inspect pilot clearance above top of rail (not less than 3" or more than 6").

The above listed tasks have been performed. Signature: ZH1

All discrepancies found and corresponding corrective actions taken to eliminate them, must be reported on sheet 4 of this document package, noting number of vehicles affected and corresponding discrepancies.

METROLINK/DAILY INSPECTION SHEET

Location: Date: Time:

Locomotive #: Car #: Control Cab #:

CAR - CLEANING

1.0 INTERIOR
- 1.1 Pick up all debris, empty trash containers, and replace trash bags throughout interior of car.
- 1.2 Vacuum all carpet areas, floors, seats, in between seats, heater box, and door tracks – and sweep & mop vinyl floors.
- 1.3 Remove all foreign matter (i.e., gum, scuff marks, finger prints, stains, graffiti, etc.) from doors, tables, walls, seats, etc.
- 1.4 Clean windows, window-sills, & wind screens.
- 1.5 Clean and disinfect drinking fountains
- 1.6 Restock all supplies – literature for holders and drinking cups.

2.0 RESTROOMS
- 2.1 Dump holding tanks.
- 2.2 Clean and disinfect toilets, and clean sinks, mirrors,
- 2.3 Refill potable water tanks.
- 2.4 Inspect flushing mechanism, and replenish disinfectant tank as required.
- 2.5 Replenish supply spares (i.e., liquid soap, emergency toilet cleanout kit, toilet paper & paper towels, out-of-service signs.

3.0 CAB
- 3.1 Clean console, exterior side mirrors (left & right sides) & windows.
- 3.2 Replenish crew supply of paper towels.

The above listed tasks have been performed. Signature: [redacted]

CAR - ELECTRICAL

1.0 INTERIOR
- 1.1 Check the condition and function of doors, lights, PA, heating, cooling, and exhaust systems.
- 1.2 Secure all panel latches.

2.0 CAB
- 2.1 Check blended brake operations.
- 2.2 Check TMS penalty brake operation and test resets.
- 2.3 Voice test radio.
- 2.4 Check exposed wiring and switches.
- 2.5 Perform ATS tests and record results on form SMP100 (MAP100).

3.0 EXTERIOR
- 3.1 Inspect all jumper cables to ensure they are secured and free from damage.

The above listed task have been performed. Signature: [redacted]

CAR - MECHANICAL

1.0 INTERIOR
- 1.1 Check all door mechanisms and drinking fountains for proper function, and for properly secured cabinet panels & ceiling hatches.
- 1.2 Check condition of all weather stripping, seats, walls, ceiling, flooring, and carpeting.
- 1.3 Ensure that first aid kits, fire extinguishers, emergency tools, and flashlight are properly secured & sealed.
- 1.4 Ensure the required decals and markings for proper location, completeness, and legibility.

2.0 RESTROOMS
- 2.1 Check condition of all sinks, toilets, soap dispensers, towel dispensers, and waste disposal containers.
- 2.2 Check for proper operation of sinks & toilets and adequate water seal.

3.0 BETWEEN CARS
- 3.1 Check condition of walk plates, curtains, and for properly secured safety bars.
- 3.2 Inspect handbrake.

4.0 CAB
- 4.1 Check condition of side view mirrors (left & right), and sun visor.
- 4.2 Replenish supply of fuses (12) in proper container.
- 4.3 Check for red flag, compliant first aid kit (in addition to one in B-end of coach), and spare communication and electrical cables.
- 4.4 Perform Class 1 brake test and record on form SMP100 (MAP100).

5.0 EXTERIOR
- 5.1 Check condition of car body exterior, steps, windows, lights, skirts, under carriage, brake pads & shoes, brake rigging, wheels, truck frames, air bags, ground straps, and discs.
- 5.2 Drain moisture (as required) from main reservoir tank.

The above listed task have been performed. Signature: [redacted]

NOTE: All discrepancies found and corresponding corrective actions taken to eliminate them, must be reported on sheet 4 of this document package, noting number of vehicles affected and corresponding discrepancies.

METROLINK/368 DAY INSPECTION COACH/CAB CAR II/148

Location: W# 2072

Date Shopped ____________

Task ID	Description	Completed By:

Dumping, Sanitization and Watering

C-C 1001 Empty and sanitize toilet retention tank. [redacted]

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.

C-C 1002 Sanitize and fill potable water tanks. [redacted]

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:
   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.
   a) test water using white color "ph" testing paper at drinking fountain
   b) 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.

C-C 1003 Replenish biocide disinfectant. [redacted]

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.

JAN 26 2005 - 7 - 05

Task ID	Description	Completed By:

Under Frame Inspection

C-C 1004 **Inspect condition of uncoupling lever and brackets.**

[redacted]

Ensure uncoupling lever is not cracked, broken or bent and operate as intended. Close knuckle and operate uncoupling lever and check that the lever rotates the rotary lock lift lever, which opens the lock and knuckle. Inspect for loose or missing hardware securing uncoupling lever brackets.

C-C 1005* **Inspect & gauge knuckle, coupler and check slack.**

[redacted]

Gauge coupler, checking, Guard Arm Distortion, Contour Wear, Knuckle Nose and Knuckle Stretch. Draft gear components, pocket and coupler pin must be inspected for slack or wear. Using a long bar between the coupler horn and striker face and prying outward, measure the distance between the coupler horn and the striker face. Then move the coupler in as far as possible towards the draft gear and again measure the distance between the coupler horn and the striker face. The distance between the two is the amount of free slack in the draft gear and coupler arrangement. Total slack must not exceed 1/2". Check anti-creep protection.

Total slack Front 1/8 Rear 1/8

C-C 1006* **Check & record coupler height.**

[redacted]

Check and record the following measurements:

	Front	Rear	Clearance Limits
Coupler Height Above Top of Rail	34 1/2	33	31-1/2" Min. 34-1/2" Max.

Ensure coupler maintained in a level position. Check coupler bounce. Excessive couple bounce and coupler carrier ears not in contact with coupler pocket stop blocks indicate weak or broken coupler carrier springs. Replace worn coupler carrier ears and stop blocks if groove is worn into bottom of block.

007* **Check and record specific gravity of each battery cell.**

[redacted]

Left Side Battery Box						Right Side Battery Box					
Cell No.		Cell No.		Cell No.		Cell No.		Cell No.		Cell No.	
1	1.21	9	1.21	17	1.23	1	1.23	9	1.22	17	1.22
2	1.21	10	1.21	18	1.23	2	1.23	10	1.22	18	1.22
3	1.23	11	1.20	19	1.22	3	1.22	11	1.23	19	1.23
4	1.23	12	1.20	20	1.22	4	1.22	12	1.23	20	1.23
5	1.22	13	1.21	21	1.22	5	1.22	13	1.22	21	1.22
6	1.22	14	1.21	22	1.22	6	1.22	14	1.22	22	1.22
7	1.22	15	1.21	23	1.20	7	1.22	15	1.22	23	1.22
8	1.22	16	1.21	24	1.20	8	1.22	16	1.22	24	1.22

Facing Battery

Note: If distilled water has been added before check specific gravity, charge the batteries for a minimum of five (5) hours.

If the specific gravity is less than 1.15, replace battery.

After checking specific gravity, turn on as many low voltage load as possible (lights, open doors at door stations, headlights, etc.) Turn off the battery charger main breaker. Allow batteries to discharge for ten (10) minutes and check the voltage drop across each cell on car nos. 183-210, and each pair of cells on all other cars. If the voltage drops to a value lower than one (1) volt on any of the cells, replace the battery with the low cell.

Task ID	Description	Completed By:
C-C 1008	**Clean battery boxes and exterior of battery sets.** Place the battery switch in the off position and open the battery switch box and remove both fuses from the fuse holder. Open the battery boxes and extend the battery trays completely. *Do not use abrasive cleansers, wire brushes, or acid washes inside the battery compartments.* Using clean water and a noncorrosive, non-caustic cleansing agent, wash the interior of the battery boxes and the exterior of the battery set.	[redacted]
C-C 1009	**Inspect battery & fluid level, add de-ionized water if needed.** Visually check batteries for cracks. Battery should be tight in tray with blocking in place. Inspect cables, terminals, connectors and terminal bars. Excessive water consumption indicates too high a charging voltage and little or no water consumption indicates that a battery is being inadequately charged. The electrolyte levels are visible through the plastic containers of the cells and have upper and lower lines on the containers to indicate the maximum and minimum levels. The cells need to be topped-up with distilled or de-ionized water when the electrolyte level is midway between the lower and upper line. Avoid leaks and spills. Note: An electrolyte spill can be neutralized with baking soda. Flush area with large amounts of fresh water once neutralized.	[redacted]
C-C 1010	**Coat battery terminals and lubricate battery tray rails.** With battery terminal wires and jumper bars disconnected, use clean water, a soft bristle brush and noncorrosive, non-caustic cleansing agent to clean all connections. Coat all terminals using Nifecote or a suitable approved substitute. Install jumper bars and connect battery terminal wires. Lubricate rails on the battery tray and ensure trolley moves freely.	[redacted]
C-C 1011	**Inspect battery compartment and switch box.** Inspect battery compartment and cover for damage, Ensure locking devices are in place and are effective. Apply battery compartment cover and secure with hardware. Inspect switch box, cover and latches. Clean battery switch box, install the fuses in the fuse holder and place the battery switch in the on position.	[redacted]

Task ID	Description
C-C 1012*	**Record wheel measurements.**

[redacted]

Record wheel measurements

	Flange Ht.	Flange Th.	Rim Th.
	Max. 1-1/2"	**Min. 1"**	**Min. 1"**
Gauge readings	24	8	16
Wheel No.1	19	6	24
Wheel No.2	19	4	22
Wheel No. 3	18	4	29
Wheel No. 4	18	12	29
Wheel No. 5	19	4	27
Wheel No. 6	15	2	27
Wheel No. 7	19	4	26
Wheel No. 8	19	4	25

Notify Supervisor if readings are at these points:

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

C-C 1013 Inspect wheels for defects.

[redacted]

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
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.

Task ID	Description	Completed By:
C-C 1014	**Inspect and record brake disc measurements.**	[redacted]

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.

Disc Wheel 1 Axle Serial No. LA31

Measurements

	1st	2nd	3rd		Smallest Value
Outside Wall Thickness	818 894	814	820	=	814
Inside Wall Thickness	832	810	819		810
Face-to-Face	3.617	3.612	3.616		3.612

Disc Renewed: Yes ____ No ✓

Disc Wheel 5 Axle Serial No. LA327

Measurements

	1st	2nd	3rd		Smallest Value
Outside Wall Thickness	842	872	835	=	835
Inside Wall Thickness	792	770	790		770
Face-to-Face	3.600	3.597	3602		3.597

Disc Renewed: Yes ____ No ✓

Disc Wheel 4 Axle Serial No. LA188

Measurements

	1st	2nd	3rd		Smallest Value
Outside Wall Thickness	894	895	875	=	875
Inside Wall Thickness	793	776	806		776
Face-to-Face	3.628	3.618	3.628		3.618

Disc Renewed: Yes ____ No ✓

Disc Wheel 8 Axle Serial No. LA404

Measurements

	1st	2nd	3rd		Smallest Value
Outside Wall Thickness	852	851	860	=	851
Inside Wall Thickness	797	777	784		777
Face-to-Face	3.605	3.602	3.606		3.602

Disc Renewed: Yes ____ No ✓

Task ID	Description	Completed By:
C-C 1015	**Inspect MU and communication cables and receptacles.** Inspect condition of MU and communication cables. Inspect condition of insulation and for signs of a stretched cable. Ensure covers are not missing, broken or cracked, are spring loaded and operate properly. Check for broken receptacle pins. Check the mica insulating plate for cracks and mounting hardware in place and secure. Inspect for dirt/moisture contamination. Remove dirt and debris using air pressure using an electrical cleaner if needed.	[redacted]
C-C 1016	**Inspect HEP cables, receptacles and 480V decals.** Inspect HEP cables for cracks, cuts, damaged insulation or signs of a stretched cable. Check for broken, flashed or partially missing pins. Ensure covers are not missing, broken, cracked and are functioning properly. Ensure "DANGER" - 480 Volt" or Danger - High Voltage decals are in place at each HEP receptacle and are legible.	[redacted]
C-C 1017	**Inspect train line hoses, piping and valves.** Inspect brake pipe and main reservoir hoses for cuts, debris damage, or evidence of being collapsed. Inspect condition of glad-hand and gasket. Ensure dummy couplings are not damaged and secured to the car. Attach free end air hose to dummy coupling. Inspect angle valves and end valves for damage. Make sure handles are not bent or broke spring is in place and effective, and the stops prevent movement of handle in the open position.	[redacted]
C-C 1018	**Inspect draft gear, yoke, coupler & coupler carrier.** Inspect coupler body and parts, yokes, and connections for cracks, broken or missing parts. Replace coupler if cracking is found in the pin protector boss or pivot lug, or if portion of the pin protector boss are missing or broken. To ensure proper locking of coupler, check for the presence of an inverted U-shaped notch located in the lower edge of both side walls of the lock hole shroud. When this recess is clear and unobstructed, the knuckle is properly locked. Inspect draft gear for signs of separation from its substrate or any signs of surface cuts or splits. Separations, cuts, or splits may not exceed 1-1/2 inches in length and 3/4 inch in depth. Check for slack in the rubber pad assembly indicating draft gear is loose in the pocket. Replace the yoke bushings if the inside diameters are worn to 3-3/16 inch.	[redacted]
C-C 1019	**Inspect truck frames, bolsters and ground straps.** Inspect truck frame and bolster for cracks that may effect structural integrity. Ensure ground straps are in place and properly secured.	[redacted]
C-C 1020	**Inspect bolster anchor assemblies, brackets and hardware.** Ensure drag link and bracket and bolster link assembly is not cracked, broken or damaged and is properly secured.	[redacted]
C-C 1021	**Inspect air spring assemblies and chevron springs.** Inspect the air spring rubber assembly for grease and oil contamination, cuts, tears, and excessive abrasion. Closely inspect the rubber around the girdle hoop. Visually check that the leveling valve lever is in the horizontal position. Use spring height GO/NOGO gauge, measure spring height. The normal working height of the air spring is 8-7/8 inches. Also check the position of the truck locking bolt where it passes through the truck locking bracket. Nominal clearance is 3/8 in. and minimum clearance is 1/8 in. Correct centering is equal spacing between truck locking bolt and truck locking bracket. If not in proper position, problem may be broken or missing stabilizer bars or leaking air spring assemblies.	[redacted]

Task ID	Description	Completed By:
C-C 1022	**Inspect vertical & lateral dampers and friction snubbers.** Inspect dampers for broken, or missing mounting hardware, cracked or broken mounting bracket. Check for oil leakage and the reservoir tube wet with oil. Inspect for damaged or dented casings.	[redacted]
C-C 1023	**Inspect laminated traction and side bearer pads.** Check pads for proper position and are not damaged or show indications of stress. Check for sharp metal edges in contact with the free rubber surface. Remove burrs carefully using a file. Do not damage the rubber surface. Inspect and replace pads that have cracks or splits that exceed a depth of 3/8 in.	[redacted]
C-C 1024*	**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.	[redacted]
C-C 1025	**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-bas grease (WABCO M-7672-01).	[redacted]
C-C 1026	**Inspect pedestal tie bars.** Inspect for damage and is properly secured.	[redacted]
C-C 1027	**Inspect wheel slide speed sensors, check air gap and cabling.** Verify the green wheel slide failure (WSF) indicator light located below the E-7 decelostat controller at the "A" end of the car is illuminated. Inspect and adjust the wheel slide speed sensors. Check the gap between the magnetic pickup assembly and the split hear. Gap should be 0.025 in ± 0.005 in. Use low pressure air (less than 30 psig) to clean and blow off any excessive buildup of dirt.	[redacted]
C-C 1028	**Inspect cabling, conduit, piping and connections.** Inspect under car for indication of a debris strike. Inspect under car wiring and clamps, piping, connections, unions, joints, valves and handles for damage.	[redacted]

Task ID	Description	Completed By:
	Car Exterior	
C-C 1029	**Inspect sides of car, end caps, and diaphragms.** Inspect body panels for damage creating jagged or sharp edges. Check for and remove any signs of graffiti.	[redacted]
C-C 1030	**Inspect side door, access and inspection panels.** Inspect doors and area around doors for damage, jagged or sharp edges. Ensure door windows are not cracked or broken and window gaskets are not torn cracked and are in place. Inspect the truck inspection panels and ensure panels and latches are not damaged, hinge and hinge pin are in place and secured. Inspect condition of cable, hook and bracket at each panel.	[redacted]
C-C 1031	**Inspect condition of car number, authority & locator decals.** Ensure that all number signs, authority logos, and car locator decals are in place, legible, and not discolored or faded.	[redacted]
C-C 1032	**Inspect condition of wheelchair, no smoking and bike decals.** Ensure that each decal is in its proper place, legible, and not discolored or faded.	[redacted]
C-C 1033	**Inspect emergency window access & removal decals.** Each emergency access window must have a fireman locator decal and an emergency window removal decal that provides instructions for operation or removal. Decals must be retro-reflective material. Decals must be in place, legible, and not faded or peeling.	[redacted]
C-C 1034	**Check emergency door locator & instruction decals.** Emergency access door locator and instruction decals must be displayed adjacent to each emergency door pull box at doors 3, 5, 4 and 6. Decals must be retro-reflective material. Decals must in place, legible and not faded or peeling.	[redacted]
C-C 1035	**Inspect all windows and condition of gaskets.** Ensure glass is not cracked or broken, window gaskets are in place and not torn. Emergency window filler gaskets split is at the bottom of the window with a 1 inch separation.	[redacted]
C-C 1036	**Inspect sill steps , horizontal and vertical handholds.** Ensure all sill steps are secure with no indication of loose bolts or fasteners. Inspect for shiny areas or rust around fastener heads indicating the fastener may be loose. With bolt heads and nuts welded, check for broken welds. Ensure steps are not bent, cracked or broken. Outside edge of the tread shall not be more than 2" inside the side of the car. Check that the PVC roof drain is in place, and not broken or damaged. Ensure all handholds are secure with a minimum 2 inches of clearance, not cracked or broken. Check for obstructions preventing the use of the handhold.	[redacted]
C-C 1037	**Inspect condition of evaporator, condenser & speaker grilles.** Inspect grilles on each side of car. Ensure each is properly secured and not damaged. Check that grills are clean and not obstructed.	[redacted]
C-C 1038	**Inspect condition of indicator lights.** Ensure indicator lights and housing is not broken or damaged and operate as intended. Repair or replace indicator lights found defective.	[redacted]

Task ID	Description	Completed By:
C-C 1039	**Inspect passenger door open assembly.** Check hardware for proper securement and for sharp edges.	[redacted]
C 1040	**Inspect side door steps and yellow anti-slip edge material.** Exterior side steps must be free of tripping hazards. Check for damage resulting from vandalism or from a debris strike. Step grates must not be cracked, broken, bent and properly secured. Ensure the yellow anti-slip material is applied to the outer edge of the step surface, clean and effective.	[redacted]

Cab Car Exterior

CC-C 1001	**Inspect headlight and auxiliary light housings.** Inspect for damage and housings are properly secured.	
CC-C 1002	**Inspect number and marker light housings.** Inspect for damage and housings are properly secured.	
CC-C 1003*	**Inspect front pilot height.** Front Pilot/Plow Height — Left ____ Right ____ 3" Min. 6" Max.	
CC-C 1004	**Inspect end door, window, barrier bar and curtain.**	
CC-C 1005	**Visually inspect upper horn (if equipped) and bell.**	
CC-C 1006	**Inspect lower horn, housing and piping.** Check for indications of damage caused by a debris strike.	
CC-C 1007	**Inspect axle generator and cabling.**	

Car Interior

C-C 2001	**Remove seat cushions, inspect shell, pan and safety retainers.** Remove seat backs and bottoms being careful not benting or distorting the pans. Examine seat shells for cracking, ensuring the hardware securing the shell is tight. Inspect and replace if needed, the safety retainer straps and clips.	
C-C 1041	**Inspect condition and securement of seats.** Ensure hardware securing seat shells to frame and hardware securing frame to wall mounted frames is not loose. Ensure arm rests and seat dividers are secured.	[redacted]
C-C 1042	**Inspect ADA folding seats and wheelchair restraints.** Ensure ADA seats raise and lock in the up position and can be lowered using the release handle. Ensure folding legs are not missing, bent, broken or inoperative.	[redacted]
C-C 1043	**Inspect ADA wheelchair ramp and securement.** Ensure wheel chair ramp is not damaged or broken. Check hinges for damage. Tie down straps should be tight and bottom strap secured properly.	[redacted]
C-C 1044	**Inspect condition and securement of tables.** Check for sharp edges on tables. Replace table top if chipped or cracked. Ensure hardware securing table pedestal at top table and floor mount is tight.	[redacted]
C-C 1045	**Inspect condition of ceiling panels and trim.** Ensure panels and molding is not cracked or broken and molding is in proper position.	[redacted]
C C 1046	**Inspect condition of window and cove frieze panels.** Ensure cove panels are not cracked, broken, or damaged.	[redacted]

Task ID	Description	Completed By:
C-C 1047	**Inspect condition of carpet and exit path marking.** Inspect for conditions that may cause a tripping hazard. Check that "T" caps are in place and flush with carpet or tile and do not create a tripping hazard. Ensure low location exit path strips are secured to the sub floor and do not create a tripping hazard.	[redacted]
C-C 1048	**Inspect condition of windows and gaskets.** Check for windows that are cracked or broken. Inspect for graffiti etched in window or gasket. Check for gaskets that appear to sag, indicated inner portion of gasket is cut.	[redacted]
C-C 1049	**Check for low voltage grounds.**	[redacted]
C-C 1050	**Check for high voltage system grounds.**	
C-C 1051	**Inspect interior lighting.** Ensure all lighting throughout car is working properly. Replace burned out lamps and ballast as needed. Ensure cove light lens and caps are not broken or cracked.	
C-C 1052	**Inspect and test emergency lighting.** Ensure emergency lighting operates as intended: a) Ensure the battery switch is in the ON position. b) Ensure all circuit breakers for interior lights are up or closed. c) Open or turn off the "FWD MAIN SERVICES" and "REAR MAIN SERVICES" circuit breakers. d) Check upper level, mid-level and lower level to ensure emergency lighting operates as intended. e) Turn "FWD and REAR" Main Services circuit breakers on.	[redacted]
C-C 1053*	**Measure & record pull force of emergency exit windows.** Randomly select four (4) interior emergency exit windows and perform a manual pull test using a pull force indicator to measure the force required to remove windows. Check form SMP 200 completed at time of last maintenance to avoid testing the same windows. **Maximum Pull Forces:** Cars Numbered **101-182**, Cab Cars **601-637**: 60 lbs. Maximum allowable pull force when measured at an angle parallel to the floor. Cars Numbered **183-210**: 30 lbs. Maximum allowable pull force when measured at a 30 to 60 degree angle to the floor. **Important Note:** If any defective condition is noted on any of the windows in the car or if the pull force limit is exceeded on any of the four (4) windows tested, *ALL* of the emergency windows must be tested. Form SMP 200, Emergency Window Tests, must be completed and retained for two (2) years in the car's maintenance file.	[redacted]
C-C 1054	**Inspect emergency exit window decals.** All emergency window exits must be identified with EXIT decals including window removal instructions of photo luminescent material. The decals must be in place, legible, not faded or peeling.	[redacted]

Task ID	Description	Completed By:
C-C 1055	**Check emergency brake valve cable pull and decals.** Ensure handles are in place, not obstructed from use and decals are in place and legible.	[redacted]
C-C 1056	**Check emergency flashlight, tools and first aid kit.** Inspect condition of frangible glass, gasket and pull ring if equipped. Check that emergency equipment, including emergency flashlight, saw, sledge hammer, pry bar, axe, and a maul is in place and in serviceable condition. Observe LED on flashlight is flashing indicating batteries are in serviceable condition. Inspect condition of bracket and that seal is in tact. Ensure first aid kit is in place and sealed (shrink wrapped). If not sealed, replace first aid kit.	[redacted]
C-C 1057	**Inspect and test destination sign controller and signs.** Check operation of destination sign controller and signs ensuring it is operating as intended.	[redacted]
C-C 1058	**Check drinking water fountain.** Check operation of water fountain and inspect for broken or damaged parts. Water pressure should be approx. 14 lbs.	[redacted]
C-C 1059	**Inspect condition of steps and handrails.** Ensure nosing on all steps is not loose and matches the level of the flooring material and is of a contrasting color. Repair or replace loose carpeting, step riser material, and nosing if tripping hazard is found. Handrails must be secure and provide at least 2 inches of usable clearance.	[redacted]
C-C 1060	**Inspect and operate end doors.** Adjust end door closer mechanism or use speed adjusting screw as need for correct operation. Closing force of on door panel leading edge should be approximately 5 lbs. Inspect weather stripping for damage. Lubricate the top hung sliding end doors and hinges on cab car end doors using DriSlide.	[redacted]
C-C 2002	**Examine door control panel relay contacts.** Examine the relay contracts for pitting or burning. When in doubt of a contact's condition, make a continuity check with a multimeter (zero ohms, for a good contact, using the 1000 ohm scale).	[redacted]
C-C 1061	**Inspect all door motors and associated hardware.** Tighten any leaking hose connections. When any internal leakage is found, replace the door motor assembly. Check the electro pneumatic valves for air leaks. If leaks are found, replace the valve.	[redacted]
C-C 2003	**Wipe clean & dust vacuum complete door operator assembly.** Completely clean the door control relay panel and the door control station using clean dry compressed air and vacuum away any dust or lint.	[redacted]

Task ID	Description	Completed By:
C-C 1062	**Inspect & test door operation from both door control stations.**	[redacted]

Check both door control stations for loose hardware, check all terminal connections for tightness and continuity, the slide panel completely clears door buttons, and the PA/INT indicator lights function. Clean away any dust or lint using low pressure dry compressed air. Clean and apply DriSlide, a molybdenum disulfide lubricant to the side door ball retainers. Test all door functions from each door control station including the door enable feature and the crew door. Check that the door control system energizes the doors by observing that each door open and close in a smooth, complete way checking:

a) the doors open and close simultaneously at each door entrance.

b) with the doors closed, check that the door rubber seals fit properly and that no gaps exist.

c) if the door drags, check by a problem with the door tracking.

d) if a door does not open or close fully, there is a problem with the door linkage.

Check for worn or frayed bristles on brush seals. And worn or torn rubber seals.

Door operator adjustment screw are located on the large cylinder of the door motor operator. Adjust screws include:

Door Cushioning Adjustment: Use for adjusting the door's cushioning to prevent the door from slamming open and recoiling. Rotate the screw clockwise for more cushioning, or counterclockwise for less cushioning. Make all adjustments in small increments (1/4 turn or less.

Door Opening Speed Adjustment: Door opening speed should be 1.6 to 2.0 seconds. Rotate the screw clockwise to increase opening speed or counterclockwise to decrease opening speed. Make adjustments in small increments (1/4 turn or less).

Door Closing Speed Adjustment: Door closing speed should be 2.0 to 2.6 seconds. Rotate the screw clockwise to increase door closing speed or counterclockwise to decrease door closing speed. Make adjustments in small increments (1/4 turn or less).

C-C 1063 **Check ADA sonalert, door lights and exterior indicator lights.**

[redacted]

Sonalert alarm sounds intermittently and starts when door close buttons are energized and should sound for 2 - 3 seconds before doors begin to close. White door lights will also begin to flash when door close buttons are energized and continues until doors are closed.

C-C 1064 **Check operation and Db level of PA and intercom.**

C-C 1065 **Inspect diaphragms, vestibule curtains and walkway plates.**

[redacted]

Diaphragms: Inspect aluminum mounting plate, sponge return spring, stainless steel fasteners and the graphite phenol resin wear plate. Check tightness of hardware, holes or tears in rubber parts, cracks or broken wear plates, bent or cracked face plate or mounting plate.

Vestibule Curtains: Inspect upper and lower roller brackets for damage, curtains for holes or tears, and curtains recoil properly and are spring loaded.

Check footing condition in walkway areas including the effectiveness of yellow anti slip surface. Replace walkway plugs if missing.

Task ID	Description	Completed By:
C-C 1066	**Inspect, lubricate and test handbrake.** Inspect handbrake rigging for wear and free movement. Lubricate lever fulcrum pins. Adjust cable slack, if required, and ensure slack adjuster	[redacted]
C-C 1067	**Inspect and test emergency door pull cable rings.** Ensure that the frangible plastic cover is in serviceable condition and is not cracked or broken. Remove the cover housing, pull the cable ring until the door opens or releases sufficiently to be opened manually. Ensure cable is free moving and not frayed. Replace cover housing and tighten hardware.	
C-C 1068	**Inspect emergency exit door decals.** Decals must be in place located at emergency door pull locations at doors 3, 5, 4 and 6. Decals must be of photo luminescent material, must be legible, not faded or peeling.	[redacted]
C-C 1069	**Inspect emergency evacuation, safety & system map posters.** Inspect poster frames for sharp edges. Emergency evacuation poster must be displayed in frame located on lower level on sloped wall "A" end of car. Check for graffiti and not bent or creased.	
C-C 1070	**Inspect electrical cabinets and lockers and check decals.** Inspect wiring and insulation, check all electrical components for indications of overheating. Check to ensure wires are firmly attached and routed properly. Check circuit breakers ensuring that each spring and latch when closed and circuit breaker does not bind. Check battery charging. Open the access panel at the "B" end circuit breaker panel. Check the battery status monitor for the following: a) Status Normal green lamp is illuminated. b) Battery Percent Capacity meter registers a reading above 50. c) No red lamps are illuminated. Ensure "DANGER - High Voltage" decals are in place and legible on hi-voltage cabinet.	[redacted]
C-C 1071	**Check all fire extinguishers.** Remove fire extinguisher and ensure seal is not missing or broken. Check that gauge is not damaged and needle is in the green zone indicating proper pressure. Check for defects in the hose, nozzle, corrosion to canister and other visible defects. Ensure inspection tag is in date (1 year) and will remain in date before next maintenance due date (92 days). Clean compartment, inspect housing and frangible glass. Place fire extinguisher in holder, and is secure.	[redacted]
C-C 1072	**Self test E-7 wheel slide system and correct faults if required.**	[redacted]

Task ID	Description	Completed By:
C-C 1073	**Inspect HVAC.**	[redacted]

a) Check the oil level in the compressor crankcase sight glass. The level should be approximately 1/2 the sight glass.
b) Check all electrical circuits for continuity and tight connections.
c) Check the following for grounds, using a 500 V megger, one (1) megohm or greater is acceptable:

1. Compressor motor
2. Condenser fan motor
3. Evaporator blower/motor

d) Inspect the motors for dirt, friction, vibration, and proper rotation. Vacuum any dirt from the motor.
e) Check the oil and refrigerant levels during steady state operating conditions (275 psig discharge pressure and 70 psig suction pressure).

f) Check the refrigerant lines for leaks using a leak detector.
Presence or accumulation of oily dirt on lines or insulation normally indicates a leak.
g) If necessary, repair leak and add refrigerant and oil.
h) Monitor the moisture and liquid indicator to determine the system dryness of refrigerant. If a condition other than Safe or Dry is indicated, change the filter-drier assembly.
i) Inspect the resilient mounts for set or surface cracks.
j) Inspect the surface of the condenser and evaporator coil. Remove any major blockage and clean the surface.
k) Inspect the drain pan under the evaporator coil and the drain lines to ensure free water drainage.
l) Clean the temperature sensors and thermostats with a soft cloth.

m) Lubricate evaporator fan shaft bearings and condenser and evaporator motor bearings with grease. Check alignment tension and condition of fan belts and couplings. If the belt is correctly tensioned, the belt should deflect 1/4 inch at the center of the span if a force of 8 lbs. is applied at that point perpendicular to the belt.

n) Test the HVAC system with the heating and air conditioning sequence tester.

C-C 2004	**Inspect HVAC heaters, sensors, thermostats & control panels.**	[redacted]

Perform a thorough inspection and perform a complete check of controls, all safety devices, and electrical and mechanical connections. Inspect evaporator blowers and condenser fan for proper alignment, tightness on shaft, and proper rotation.

Inspect floor heaters. Inspect the wiring and terminations. Examine the heater terminals and mounting insulators, remove any dirt or debris from components.

Inspect overhead heaters. Inspect and examine the terminals and connections, removing dust and dirt from the assembly.

Sensors. Examine the sensor assemblies. Remove all dust from sensors with a camels-hair brush. (Do Not Use Compressed Air). Examine the wiring and terminal connections for tightness.

Thermostats, Thermoswitches. Wipe the barrel clean with a dry lint-free cloth. Examine wire and terminations.

Temperature control panels. Vacuum the panels free of all dust and dirt. Examine all terminations for tightness. Check the condition of the contacts of the relays and contactors. Remove any dust from the boards of the Electronic Control Modules with a camels-hair brush.

Door pocket heaters. Inspect and examine the terminals and connections. Remove dust and dirt from the assembly, clean the cover and remove dirt from the openings.

Under seat heaters. Clean cover and openings. Vacuum dust from the inside enclosure. Inspect and examine the terminals and connections.

Door track heaters. Examine terminal connections for tightness. Check the seal at the ends of heater element. Check mountings and ensure element is firmly in place. Brush the surface of the element, removing material lodged around element.

Task ID	Description	Completed By:
C-C 1074	**Inspect condition & securement of windscreens.** Ensure glass wind screens are not broken or cracked with no sharp edges, and are secure in mountings.	[redacted]
1075	**Inspect condition of bicycle rack securement.** Check securement of brackets and condition of nylon cord.	[redacted]
C-C 1076	**Inspect vertical handholds and handrails.** Ensure all handholds and handrails are properly secured checking for loose bolts or fasteners with at least 2 inches of clearance. Ensure handholds are not bent with no obstruction preventing its use.	
C-C 1077	**Inspect heater strip and air filter grilles.** Inspect for loose or missing hardware securing the heater grill or air filter grill. Ensure latches securing the air grilles function properly and tightly secures the air grill in place.	[redacted]
C-C 1078	**Inspect all access panel doors and latches.** Ensure all access panel doors, hinges and latches are not broken or damaged. Secure all panel door latches upon completion of inspection.	
C-C 1079	**Inspect condition of all trash receptacles.** Inspect trash receptacles for damage, being bent, cracked, or having sharp corners or edges.	[redacted]
	Cab Car Interior	
CC-C 1008	**Inspect wheelchair storage partitions.** Check for loose or missing hardware securing each panel to the brackets. Ensure panels are not cracked broken or chipped.	
CC-C 1009	**Inspect compartment door, door latch and door stop.**	
2005	**Check calibration of load meter.** Using a test device to check the calibration of the load meter, apply 3 volts to pins no. 1 and no. 11 in the locomotive MU receptacle (yellow). Verify amount of voltage applied using a meter. With 150 amps/volt conversion, 3 volts applied to the load meter should indicate 450 amps if accurate..	
CC-C 1010	**Check instrument panel, cab, and indicator lights.** Inspect all gauge and panel lights including speed indicator and gauge dimmer switch. Operate push to test feature to verify lamps are working properly.	
CC-C 1011	**Test air brake, safety controls and warning devices.** Check operation of 26B automatic brake valve it functions as intended in all positions. Test graduated release feature, TMS and emergency.	
CC-C 1012	**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.	
CC-C 1013	**Test air brake gauges.** Verify accuracy of each needle (4) using a CO_2 tester at 100 lbs. of pressure	
CC-C 1014	**Perform brake pipe leakage test.** Brake pipe leakage must not exceed 3 lbs. per minute.	

Task ID	Description	Completed By:
CC-C 1015	**Check controller for proper operation.** Ensure controller and reverser interlock as intended. Check electrical cannon plug under desk top to ensure connection is tight.	
CC-C 1016	**Ensure proper operation of all exterior lights.** 1) Front Headlight (all positions). 2) Auxiliary lights (steady state and flashing). 3) Marker lights.	
CC-C 1017	**Check speed recorder.**	
CC-C 1018	**Inspect cab seat and mounting.** Ensure operators seat is securely mounted and is adjustable.	
CC-C 1019	**Inspect cab window, mirrors, and sun visor.** Ensure cab windows and windshields are not cracked or broken and provide a clear unobstructed view. Ensure mirror is not damaged, cracked or broken. Check condition of mounting bracket and that hardware is not loose or missing. Inspect condition of sun visor.	
CC-C 1020	**Inspect and test windshield wiper.** Ensure windshield wiper blades are in good serviceable condition and windshield wiper(s) are operating properly.	
CC-C 1021	**Check operation of ATS.** Verify ATS receiver is properly secured and the washboards are aligned. Perform a slap test. Perform ATS test and complete form SMP 8.	
CC-C 1022	**Inspect, download, reset time & seal event recorder.**	
CC-C 1023*	**Check radio output using Watt meter and voice test radio.**	
CC-C 1024*	**Test and record Db level of horn and test bell.** Using a sound level meter, within 1 yr. Of calibration, position meter 100 ft. forward of cab car with the microphone 4 ft. above ground at centerline of track. Minimum sound level of 96db(A) must be registered. Sign and attach sound level printout to cap car maintenance file.	
CC-C 1025	**Inspect crew locker door and door latch hardware.**	
CC-C 1026	**Inspect crew locker light and test on/off switch.** Inspect light bracket, hardware and protective lens cover. Check on/off switch is functioning.	
CC-C 1027	**Check "Quiet Area" sign, bracket and nylon cord.** Replace sign if missing, illegible, cracked or broken. Check condition of nylon cord and wall mounted bracket and hardware.	
CC-C 1028	**Check condition of "Compliant" first aid kit.** Ensure "FRA/CPUC" compliant first aid is available and sealed (shrink wrapped). Ensure contents of kit is on back side of container and legible. Replace first aid kit if seal is broken.	
CC-C 1029	**Check air hoses, wrench, supplies, and condition of step.** Supplies should include: 1 red flag, 12 fuses, pipe wrench, brake pipe hose.	
CC-C 1030	**Stencil PM date on handbrake cover.**	
CC-C 1031	**Complete form FRA F6180-49A (Blue Card).**	

Task ID	Description	Completed By:

Restroom

C-C 1080 **Inspect the two section sliding doors.**

Inspect the door tracks for excessive wear or foreign material that may interfere with proper door operation. Inspect the door panels and door hanger track for signs of excessive wear or damage. Access the door hanger track by unlocking the three locks that secure the hinged vestibule ceiling panel and lower panel. With the doors closed, doors should be parallel to header and jamb. Operate door to check that the bottom guides engage in bottom track and door lock properly engages the striker plate. Adjust the door tracks using the hanger nuts. Adjust doors for smooth operation and correct vibration. Clean door track and apply DriSlide to lubricate roller bearing track.

C-C 1081 **Inspect condition of handholds.**

Ensure handholds are properly secured and provide 2 inches of usable clearance.

C-C 1082 **Inspect ceiling and plumbing compartment light.**

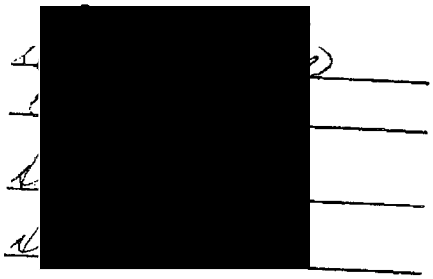
C-C 1083 **Inspect sink vanity mirror and wall mounted mirror.**

Ensure mirrors are not cracked or broken and is properly secured.

C-C 1084 **Inspect access panel and compartment type doors.**

C-C 1085 **Check operation of toilet and sink.**

Check toilet flush timing cycle, check for proper metering of water and biocide. Ensure adequate water seal is maintained in bowl. Check water pressure at sink, (14 psi) and ensure water spring loaded faucet plunger operates as intended and water does not drip.

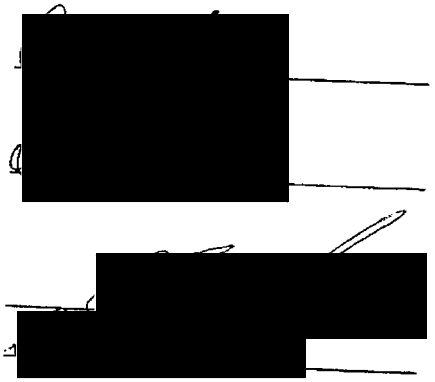


086 **Renew coalescent and particulate filters.**

Remove and clean threaded polycarbonate bowl and renew coalescent and particulate filter elements.

C-C 1087 **Renew water cooler filter.**

Close valve to isolate water cooler from supply tank. Depress valve until water flow ceases. Disassemble threaded body of filter shell and replace cartridge.



C-C 1088 **Inspect exhaust fan & components in plumbing compartment.**

C-C 1089 **Inspect condition of floor, wall panels and molding.**

Inspect floor for tripping hazards, and check wall panels and molding for being cracked or broken.

Cab Car Interior Cleaning

CC-CL 1001 Clean console, side and upper switch and indicator panels.

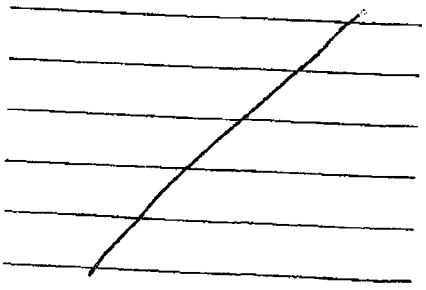
CC-CL 1002 Clean ceiling and wall panels.

CC-CL 1003 Clean seat and windows.

CC-CL 1004 Sweep and mop floor.

CC-CL 1005 Clean crew locker walls and ceiling.

CC-CL 1006 Sweep and mop crew locker floor.



Task ID	Description	Completed By:
	Interior Cleaning	
CL 1007	Remove all trash (newspapers, cups, etc.).	
L 1008	Wash ceilings, side Kydex panels, and bulkheads.	
C-CL 1009	Wash wind screens and kickboards under seats.	
C-CL 1010	Clean handrails, stanchions, and handhold.	
C-CL 1011	Clean windows and glass windscreens.	
C-CL 1012	Inspect for and remove all graffiti.	
C-CL 1013	Empty trash receptacles and wash interior of receptacles.	
C-CL 1014	Clean exterior of trash receptacles and replace trash bag.	
C-CL 1015	Clean interior and exterior of cove light fixtures.	
C-CL 1016	Remove and clean air grilles over mid-to-upper level stairs.	
C-CL 1017	Clean air conditioning vents.	
C-CL 2100	With seat cushions remove, thoroughly clean seat shells.	
C-CL 1018	Replace seat bottoms, backs and headrests as required.	
C-CL 1019	Clean seat shells, seat dividers and armrests.	
C-CL 1020	Vacuum seat backs and bottoms and clean headrests.	
C-CL 1021	Clean area between wall and table. Clean and sanitize tables.	
1022	Wipe down heater guards and heater boxes.	
C-CL 1023	Clean and disinfect water fountain including drain sink.	
C-CL 1024	Clean end doors and floor tracks.	
C-CL 1025	Clean diaphragms, vestibule curtains and walkway plates.	
C-CL 1026	Clean side doors, windows, and door tracks. Completely clean dirt and debris in door track. Clean the guide slot of the door threshold. Remove any debris in the door pockets. Ensure drain holes are not plugged.	
C-CL 1027	Sweep and mop tile floors and steps.	
C-CL 1028	Strip tile floors, reapply sealant if required and wax floors.	
C-CL 1029	Vacuum and shampoo all carpeted areas.	

Task ID	Description	Completed By:
	Car Exterior Cleaning	
C-CL 1030	Wash door pockets, car end caps, and diaphragms.	[redacted]
1031	Clean side door step platforms and yellow anti slip surface.	
C-CL 1032	Clean cab car window(s).	

Review and 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.

Signature: [redacted]

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

Serial Numbers Car 148 Date 1-6-05 Employee Signature [redacted]

A-End Truck J92 - 902

B-End Truck 863 892

Axle 1 Serial # LA 31

Axle 2 Serial # LA 327

Axle 3 Serial # LA 188

Axle 4 Serial # LA 404

Wheel # 1 64968

Wheel # 2 64847

Wheel # 3 64941

Wheel # 4 NA

Wheel # 5 ~~NA~~ RP 64921

Wheel # 6 64882

Wheel # 7 58559

Wheel # 8 NA

METROLINK

CENTRAL MAINTENANCE FACILITY - LOS ANGELES

EMERGENCY WINDOW TESTS

Date: 1-6-06 Work Order No.: _____ Car No.: 148

PROCEDURE

1) Randomly select four (4) emergency windows and perform a manual pull test using a digital force gage to measure and record the force required to remove windows.
2) Avoid testing more than two of the samples previously tested within the last 92-day PM cycle.
3) Record in the spaces provided below:
   a) Location codes listed on reverse side
   b) Force required to remove each window
   c) Acceptance as "Y" for *Yes* or "N" for *No*
      - **Coach Cars #101-182, and Cab Cars #601-637:** 60 lbs. Max. allowable woith angle of pull force parallel to floor.
      - **Coach Cars #183 & Higher, and Cab Cars #638 & Higher:** 20 to 30 lbs. Allowable with pull force at 30° to 60° angle to floor.
   d) Any appropriate remarks.

NOTE: If any defective condition is noted on any of the windows in the car or if the specified pull force limits are exceeded on any of the four (4) test samples, this will require all emergency windows in the car be tested—not just the initial four (4) test samples. In such cases, a notation must be recorded in the "Comments" section on the reverse side of this form to include: 1) which window(s) failed or defective condition(s) was/were found, 2) brief description of the failure(s)/defective condition(s), 3) that the corrective actions were satisfactorily completed, and 4) who corrected the problem along with corresponding date.

REFERENCES

- MIL-STD-105D, Sampling Procedures and Tables for Inspection by Attributes
- CFR Title 49, Section 239.107, (b) & (c).

Window Test Sample	Location Code	Force (lbs)	Accept Y	Accept N	Remarks
1	U4	47.6	✓		
2	U8	49.3	✓		
3	U12	44.7	✓		
4	U16	48.5	✓		

[redacted] INSPECTOR SIGNATURE

[redacted] SUPERVISOR SIGNATURE

SMP200 09/24/04

METROLINK

CENTRAL MAINTENANCE FACILITY - LOS ANGELES

EMERGENCY WINDOW TESTS

Date: 1-6-05 Work Order No.: _____ Car No.: 148

PROCEDURE

1) Randomly select four (4) emergency windows and perform a manual pull test using a digital force gage to measure and record the force required to remove windows.
2) Avoid testing more than two of the samples previously tested within the last 92-day PM cycle.
3) Record in the spaces provided below:
   a) Location codes listed on reverse side
   b) Force required to remove each window
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   d) Any appropriate remarks.

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REFERENCES

- MIL-STD-105D, Sampling Procedures and Tables for Inspection by Attributes
- CFR Title 49, Section 239.107, (b) & (c).

Window Test Sample	Location Code	Force (lbs)	Accept Y	Accept N	Remarks
1	43	50.1	✓		
2	47	48.2	✓		
3	411	39.8	✓		
4	415	47.7	✓		

[redacted] [redacted]

INSPECTOR SIGNATURE SUPERVISOR SIGNATURE

SMP200 09/24/04

METROLINK

CENTRAL MAINTENANCE FACILITY - LOS ANGELES

EMERGENCY WINDOW TESTS

Date: 1-6-05 Work Order No.: _____ Car No.: 148

PROCEDURE

1) Randomly select four (4) emergency windows and perform a manual pull test using a digital force gage to measure and record the force required to remove windows.
2) Avoid testing more than two of the samples previously tested within the last 92-day PM cycle.
3) Record in the spaces provided below:
   a) Location codes listed on reverse side
   b) Force required to remove each window
   c) Acceptance as "Y" for *Yes* or "N" for *No*
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      - **Coach Cars #183 & Higher, and Cab Cars #638 & Higher:** 20 to 30 lbs. Allowable with pull force at 30° to 60° angle to floor.
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REFERENCES

- MIL-STD-105D, Sampling Procedures and Tables for Inspection by Attributes
- CFR Title 49, Section 239.107, (b) & (c).

Window Test Sample	Location Code	Force (lbs)	Accept Y	Accept N	Remarks
1	I 3	42.6	✓		
2	I 4	50.1	✓		
3	I 9	46.6	✓		
4	I 10	48.6	✓		

[redacted] INSPECTOR SIGNATURE

[redacted] SUPERVISOR SIGNATURE

METROLINK

CENTRAL MAINTENANCE FACILITY - LOS ANGELES

EMERGENCY WINDOW TESTS

Date: 1-6-05 Work Order No.: _____ Car No.: 148

PROCEDURE

1) Randomly select four (4) emergency windows and perform a manual pull test using a digital force gage to measure and record the force required to remove windows.
2) Avoid testing more than two of the samples previously tested within the last 92-day PM cycle.
3) Record in the spaces provided below:
   a) Location codes listed on reverse side
   b) Force required to remove each window
   c) Acceptance as "Y" for *Yes* or "N" for *No*
      - **Coach Cars #101-182, and Cab Cars #601-637:** 60 lbs. Max. allowable width angle of pull force parallel to floor.
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   d) Any appropriate remarks.

NOTE: If any defective condition is noted on any of the windows in the car or if the specified pull force limits are exceeded on any of the four (4) test samples, this will require all emergency windows in the car be tested—not just the initial four (4) test samples. In such cases, a notation must be recorded in the "Comments" section on the reverse side of this form to include: 1) which window(s) failed or defective condition(s) was/were found, 2) brief description of the failure(s)/defective condition(s), 3) that the corrective actions were satisfactorily completed, and 4) who corrected the problem along with corresponding date.

REFERENCES

- MIL-STD-105D, Sampling Procedures and Tables for Inspection by Attributes
- CFR Title 49, Section 239.107, (b) & (c).

Window Test Sample	Location Code	Force (lbs)	Accept Y	Accept N	Remarks
1	I3	77.7		✓	
2	I4	70.4		✓	
3	I9	73.4		✓	
4	I10	83.9		✓	

[redacted]
INSPECTOR SIGNATURE

[redacted]
SUPERVISOR SIGNATURE

METROLINK

CENTRAL MAINTENANCE FACILITY - LOS ANGELES

EMERGENCY WINDOW TESTS

Date: 1-6-05 Work Order No.: _____ Car No.: 148

PROCEDURE

1) Randomly select four (4) emergency windows and perform a manual pull test using a digital force gage to measure and record the force required to remove windows.
2) Avoid testing more than two of the samples previously tested within the last 92-day PM cycle.
3) Record in the spaces provided below:
   a) Location codes listed on reverse side
   b) Force required to remove each window
   c) Acceptance as "Y" for Yes or "N" for No
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      - **Coach Cars #183 & Higher, and Cab Cars #638 & Higher:** 20 to 30 lbs. Allowable with pull force at 30° to 60° angle to floor.
   d) Any appropriate remarks.

NOTE: If any defective condition is noted on any of the windows in the car or if the specified pull force limits are exceeded on any of the four (4) test samples, this will require all emergency windows in the car be tested—not just the initial four (4) test samples. In such cases, a notation must be recorded in the "Comments" section on the reverse side of this form to include: 1) which window(s) failed or defective condition(s) was/were found, 2) brief description of the failure(s)/defective condition(s), 3) that the corrective actions were satisfactorily completed, and 4) who corrected the problem along with corresponding date.

REFERENCES

- MIL-STD-105D, Sampling Procedures and Tables for Inspection by Attributes
- CFR Title 49, Section 239.107, (b) & (c).

Window Test Sample	Location Code	Force (lbs)	Accept Y	Accept N	Remarks
1	L1	83.0		✓	
2	L2	80.3		✓	
3	L5	76.9		✓	
4	L6	74.7		✓	

[redacted]

INSPECTOR SIGNATURE

[redacted]

SUPERVISOR SIGNATURE

METROLINK

CENTRAL MAINTENANCE FACILITY - LOS ANGELES

EMERGENCY WINDOW TESTS

Date: 1-6-05 Work Order No.: _____ Car No.: 148

PROCEDURE

1) Randomly select four (4) emergency windows and perform a manual pull test using a digital force gage to measure and record the force required to remove windows.
2) Avoid testing more than two of the samples previously tested within the last 92-day PM cycle.
3) Record in the spaces provided below:
   a) Location codes listed on reverse side
   b) Force required to remove each window
   c) Acceptance as "Y" for *Yes* or "N" for *No*
      - **Coach Cars #101- 182, and Cab Cars #601- 637:** 60 lbs. Max. allowable woith angle of pull force parallel to floor.
      - **Coach Cars #183 & Higher, and Cab Cars #638 & Higher:** 20 to 30 lbs. Allowable with pull force at 30° to 60° angle to floor.
   d) Any appropriate remarks.

NOTE: If any defective condition is noted on any of the windows in the car or if the specified pull force limits are exceeded on any of the four (4) test samples, this will require all emergency windows in the car be tested—not just the initial four (4) test samples. In such cases, a notation must be recorded in the "Comments" section on the reverse side of this form to include: 1) which window(s) failed or defective condition(s) was/were found, 2) brief description of the failure(s)/defective condition(s), 3) that the corrective actions were satisfactorily completed, and 4) who corrected the problem along with corresponding date.

REFERENCES

- MIL-STD-105D, Sampling Procedures and Tables for Inspection by Attributes
- CFR Title 49, Section 239.107, (b) & (c).

Window Test Sample	Location Code	Force (lbs)	Accept Y	Accept N	Remarks
1	L1	51.8	✓		
2	L2	52.9	✓		
3	L5	45.8	✓		
4	L6	50.6	✓		

[redacted] _____ [redacted] _____

INSPECTOR SIGNATURE SUPERVISOR SIGNATURE

METROLINK

CENTRAL MAINTENANCE FACILITY - LOS ANGELES

EMERGENCY WINDOW TESTS

Date: 1-6-05 Work Order No.: _____ Car No.: 148

PROCEDURE

1) Randomly select four (4) emergency windows and perform a manual pull test using a digital force gage to measure and record the force required to remove windows.
2) Avoid testing more than two of the samples previously tested within the last 92-day PM cycle.
3) Record in the spaces provided below:
   a) Location codes listed on reverse side
   b) Force required to remove each window
   c) Acceptance as "Y" for *Yes* or "N" for *No*
      - **Coach Cars #101- 182, and Cab Cars #601- 637:** 60 lbs. Max. allowable width angle of pull force parallel to floor.
      - **Coach Cars #183 & Higher, and Cab Cars #638 & Higher:** 20 to 30 lbs. Allowable with pull force at 30° to 60° angle to floor.
   d) Any appropriate remarks.

NOTE: If any defective condition is noted on any of the windows in the car or if the specified pull force limits are exceeded on any of the four (4) test samples, this will require all emergency windows in the car be tested—not just the initial four (4) test samples. In such cases, a notation must be recorded in the "Comments" section on the reverse side of this form to include: 1) which window(s) failed or defective condition(s) was/were found, 2) brief description of the failure(s)/defective condition(s), 3) that the corrective actions were satisfactorily completed, and 4) who corrected the problem along with corresponding date.

REFERENCES

- MIL-STD-105D, Sampling Procedures and Tables for Inspection by Attributes
- CFR Title 49, Section 239.107, (b) & (c).

Window Test Sample	Location Code	Force (lbs)	Accept Y	Accept N	Remarks
1	4 4	87.8		✓	
2	4 8	89.2		✓	
3	4 12	81.2		✓	
4	4 16	89.2		✓	

[redacted] _____

INSPECTOR SIGNATURE

[redacted] _____

SUPERVISOR SIGNATURE

SMP200 09/24/04

METROLINK

CENTRAL MAINTENANCE FACILITY - LOS ANGELES

EMERGENCY WINDOW TESTS

Date: 1-6-05 Work Order No.: _____ Car No.: 148

PROCEDURE

1) Randomly select four (4) emergency windows and perform a manual pull test using a digital force gage to measure and record the force required to remove windows.
2) Avoid testing more than two of the samples previously tested within the last 92-day PM cycle.
3) Record in the spaces provided below:
   a) Location codes listed on reverse side
   b) Force required to remove each window
   c) Acceptance as "Y" for *Yes* or "N" for *No*
      - **Coach Cars #101-182, and Cab Cars #601-637:** 60 lbs. Max. allowable woith angle of pull force parallel to floor.
      - **Coach Cars #183 & Higher, and Cab Cars #638 & Higher:** 20 to 30 lbs. Allowable with pull force at 30° to 60° angle to floor.
   d) Any appropriate remarks.

NOTE: If any defective condition is noted on any of the windows in the car or if the specified pull force limits are exceeded on any of the four (4) test samples, this will require all emergency windows in the car be tested—not just the initial four (4) test samples. In such cases, a notation must be recorded in the "Comments" section on the reverse side of this form to include: 1) which window(s) failed or defective condition(s) was/were found, 2) brief description of the failure(s)/defective condition(s), 3) that the corrective actions were satisfactorily completed, and 4) who corrected the problem along with corresponding date.

REFERENCES

- MIL-STD-105D, Sampling Procedures and Tables for Inspection by Attributes
- CFR Title 49, Section 239.107, (b) & (c).

Window Test Sample	Location Code	Force (lbs)	Accept Y	Accept N	Remarks
1	43	99.5		✓	
2	47	95.0		✓	
3	411	78.8		✓	
4	415	95.6		✓	

[redacted] INSPECTOR SIGNATURE

[redacted] SUPERVISOR SIGNATURE

Cab Car #623

METROLINK

Southern California Regional Rail Authority
Equipment Condition Report

SMP 100

NO. B224692

OMOTIVE NUMBER: S.C.A.X. - 623 POSITION IN CONSIST: LEAD

USE SEPARATE REPORT FOR EACH UNIT IN CONSIST.

Each locomotive unit shall be inspected in accordance with CFR title 49 parts 229.21, and 236.587.
Cab Card SMP 101 must be signed.

NAME OF EMPLOYEE MAKING DAILY INSPECTION	EMPLOYEE #	OCCUPATION	PLACE	DATE	TIME
[redacted]	1018	MECH	CMF	1-26-07	400

SEAL NUMBERS

ATS	0174426	SPEEDOMETER OVERSPEED	0145735
ALERTOR	0158018	DOOR OVERRIDE	0170086
ZERO SPEED	0128915	EVENT RECORDER	0128919
HORN	0183731		

ATS DEPARTURE TEST

NAME OF EMPLOYEE MAKING ATS TEST	EMPLOYEE #	OCCUPATION	PLACE	DATE	TIME

CONDITION OF EQUIPMENT

SPEED INDICATOR		CROSSING BELL	
H.E.P.		HORN	
DYNAMIC BRAKES		ATS	
BRAKES & RIGGING		ALERTOR	
RADIO		WIPERS	
SANDERS		MAIN RESERVOIR PRESSURE	PSI
BRAKE PIPE PRESSURE	PSI		

FAILURES EN ROUTE	ENGR. INIT.	REPAIRED BY

THE ABOVE WORK HAS BEEN PERFORMED, EXCEPT AS NOTED, THE REPORT IS APPROVED, AND THIS UNIT IS AVAILABLE FOR SERVICE.

SIGNATURE OF EMPLOYEE APPROVING UNIT FOR SERVICE	OCCUPATION	PLACE	DATE	TIME

SIGNATURE OF LOCOMOTIVE ENGINEER	LOCATION	DATE	TIME

USE REVERSE SIDE FOR ADDITIONAL COMMENTS OR DETAILS

ORIG. – MECHANICAL MAINTENANCE FACILITY / COPY – RETAINED AT ENGINES INITIAL TERMINAL

METROLINK

Southern California Regional Rail Authority
Class 1 Brake Test and Inspection Certificate

SMP 1173

☐ **An Initial Terminal Air Brake Test has been satisfactorily performed per CFR49 Part 232.12 for freight/work trains.**

BE COMPLETED AND SIGNED BY PERSON(S) PERFORMING AIR BRAKE TEST AND INSPECTION

Class 1 Brake Test has been satisfactorily performed as required by CFR 49 Part 238.313

Loco #	Loco #	Loco #	Cab Car #	Number of Cars
873	—	—	623	3

Date	Time	Location	Name	Employee No.
1.26.05	400A	CMF	[redacted]	1018

Following equipment has received an Exterior and Interior Calendar Day Mechanical Inspection as required by CFR 49 Part 238.303 and 238.305.

Car #	Car #	Car #	Car #	Car #	Car #	Car #	Car #	Car #	Car #
177	148	623							

Exterior Inspection performed by:

Name	Employee No.	Date	Time	Location
[redacted]	1618	1.26.05	400A	CMF

Interior Inspection performed by:

Name	Employee No.	Date	Time	Location
[redacted]	1018	1.26.05	400P	CMF

Communications System: ☑ Operative ☐ Inoperative **Train Set for:** ☑ **Graduated Release** ☐ **Direct Release**

TO BE COMPLETED AND SIGNED BY INBOUND ENGINEER (AMT-3, 14.4):

Locomotive #(s) or Cab Car #	Date	Time	Number of Cars	Condition of Brakes	Engineer's Signature
				☐ Acceptable ☐ Unacceptable	
				☐ Acceptable ☐ Unacceptable	
				☐ Acceptable ☐ Unacceptable	

METROLINK/DAILY INSPECTION SHEETS

Location: Cuyp Date: 1-25-05 Time: [redacted]

Locomotive #: 873 Car #: 177 - 148 Control Cab #: 623

Inspection has been performed per CFR49, parts 229 & 238. Signature: [redacted]

LOCOMOTIVE - CLEANING

1.0 CAB

1.1 Pick up all debris, empty trash container, and replace trash bag.
1.2 Clean windshield (in & out), windows (in & out), and sweep floors.
1.3 Replenish drinking water and paper towels.

2.0 ENGINE ROOM & HEP

2.1 Pick up debris and rags.
2.2 Clean walkways, engine sump and light fixtures, and wipe down engine block.

3.0 EXTERIOR

3.1 Remove debris from walkways, and clean nose and fuel tanks as needed.
3.2 Refill locomotive fuel – no matter what level it is, and check sand level & replenish if below 1 foot minimum level.

The above listed tasks have been performed. Signature: [redacted]

LOCOMOTIVE - ELECTRICAL

1.0 CAB (Including Vestibule & Nose Compartments)

1.1 Check blended brakes, TMS penalty brakes and resets.
1.2 Voice test radio.
1.3 Perform ATS tests, and record results on form SMP100 (MAP100).
1.4 Perform ATS "Slap Test".
1.5 Check computer for faults.

2.0 ENGINE ROOM

2.1 Check HEP indicator lights, voltage & frequency
2.2 Check for spare MU & communication jumper cables - make sure they are available on rack.
2.3 Check hand-brake.

EXTERIOR

3.1 Inspect all jumper cables to ensure they are secured & free from damage.

I have performed the above listed tasks. Signature: [redacted]

LOCOMOTIVE - MECHANICAL

1.0 CAB (Including Vestibule & Nose Compartments)

1.1 Check condition of seats, walls, ceiling, floor, windows, & sun visor.
1.2 Check windshield wiper, door mechanisms, horn, bell for proper function.
1.3 Replenish supply of fuses (12) in proper container.
1.4 Check for red flag and first aid kit (compliance & sealed), and for spare B.P. & F.I.R. hoses.
1.5 Check hand brake operation & ensure correct date stenciling.
1.6 Check for proper operation of sanders.
1.7 Perform Class 1 brake test and record on SMP100 (MAP100).
1.8 Make sure that the GPS power supply is in the on position.

2.0 ENGINE ROOM & HEP

2.1 Check oil levels of main engine, HEP engine, air compressor, & governor (if low, determine cause); and bring to full mark.
2.2 Check coolant levels & concentration for main engine and HEP, and bring to full mark.
2.3 Check for fuel, oil, water, and exhaust leaks.
2.4 Check for unusual noises in engine, auxiliary blower, AR15 generator, air compressor, turbo, generator and HEP while running.
2.5 Check air compressor control air system, and drain intercooler and dirt-collector condensate.

3.0 EXTERIOR

3.1 Check condition of body, steps, ladders, walkways, windows, truck safety hangers, brake shoes, and wheels.
3.2 Drain moisture (as required) from main reservoir tank.
3.3 Check brake shoes for proper clearance & alignment (no overlapping), and side bearing clearance.
3.4 Inspect pilot clearance above top of rail (not less than 3" or more than 6").

The above listed tasks have been performed. Signature: [redacted]

All discrepancies found and corresponding corrective actions taken to eliminate them, must be reported on sheet 4 of this document package, noting number of vehicles affected and corresponding discrepancies.

METROLINK/DAILY INSPECTION SHEET

Location: Date: Time:

Locomotive #: Car #: Control Cab #:

CAR - CLEANING

1.0 INTERIOR
- 1.1 Pick up all debris, empty trash containers, and replace trash bags throughout interior of car.
- 1.2 Vacuum all carpet areas, floors, seats, in between seats, heater box, and door tracks – and sweep & mop vinyl floors.
- 1.3 Remove all foreign matter (i.e., gum, scuff marks, finger prints, stains, graffiti, etc.) from doors, tables, walls, seats, etc.
- 1.4 Clean windows, window-sills, & wind screens.
- 1.5 Clean and disinfect drinking fountains
- 1.6 Restock all supplies – literature for holders and drinking cups.

2.0 RESTROOMS
- 2.1 Dump holding tanks.
- 2.2 Clean and disinfect toilets, and clean sinks, mirrors,
- 2.3 Refill potable water tanks.
- 2.4 Inspect flushing mechanism, and replenish disinfectant tank as required.
- 2.5 Replenish supply spares (i.e., liquid soap, emergency toilet cleanout kit, toilet paper & paper towels, out-of-service signs.

3.0 CAB
- 3.1 Clean console, exterior side mirrors (left & right sides) & windows.
- 3.2 Replenish crew supply of paper towels.

The above listed tasks have been performed. Signature: [redacted]

CAR - ELECTRICAL

1.0 INTERIOR
- 1.1 Check the condition and function of doors, lights, PA, heating, cooling, and exhaust systems.
- 1.2 Secure all panel latches.

2.0 CAB
- 2.1 Check blended brake operations.
- 2.2 Check TMS penalty brake operation and test resets.
- 2.3 Voice test radio.
- 2.4 Check exposed wiring and switches.
- 2.5 Perform ATS tests and record results on form SMP100 (MAP100).

3.0 EXTERIOR
- 3.1 Inspect all jumper cables to ensure they are secured and free from damage.

The above listed task have been performed. Signature: [redacted]

CAR - MECHANICAL

1.0 INTERIOR
- 1.1 Check all door mechanisms and drinking fountains for proper function, and for properly secured cabinet panels & ceiling hatches.
- 1.2 Check condition of all weather stripping, seats, walls, ceiling, flooring, and carpeting.
- 1.3 Ensure that first aid kits, fire extinguishers, emergency tools, and flashlight are properly secured & sealed.
- 1.4 Ensure the required decals and markings for proper location, completeness, and legibility.

2.0 RESTROOMS
- 2.1 Check condition of all sinks, toilets, soap dispensers, towel dispensers, and waste disposal containers.
- 2.2 Check for proper operation of sinks & toilets and adequate water seal.

3.0 BETWEEN CARS
- 3.1 Check condition of walk plates, curtains, and for properly secured safety bars.
- 3.2 Inspect handbrake.

4.0 CAB
- 4.1 Check condition of side view mirrors (left & right), and sun visor.
- 4.2 Replenish supply of fuses (12) in proper container.
- 4.3 Check for red flag, compliant first aid kit (in addition to one in B-end of coach), and spare communication and electrical cables.
- 4.4 Perform Class 1 brake test and record on form SMP100 (MAP100).

5.0 EXTERIOR
- 5.1 Check condition of car body exterior, steps, windows, lights, skirts, under carriage, brake pads & shoes, brake rigging, wheels, truck frames, air bags, ground straps, and discs.
- 5.2 Drain moisture (as required) from main reservoir tank.

The above listed task have been performed. Signature: [redacted]

NOTE: All discrepancies found and corresponding corrective actions taken to eliminate them, must be reported on sheet 4 of this document package, noting number of vehicles affected and corresponding discrepancies.

METROLINK/92 DAY INSPECTION COACH/CAB CAR #623

Location: 4/0 2117 Date Shopped _____

Task ID	Description	Completed By:

Dumping, Sanitization and Watering

C-C 1001 Empty and sanitize toilet retention tank. [redacted]

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.

C-C 1002 Sanitize and fill potable water tanks. [redacted]

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:
   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.
   a) test water using white color "ph" testing paper at drinking fountain
   b) 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.

C-C 1003 Replenish biocide disinfectant. [redacted]

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.

1-20-05

Task ID	Description	Completed By:

Under Frame Inspection

C-C 1004 **Inspect condition of uncoupling lever and brackets.** [redacted]

Ensure uncoupling lever is not cracked, broken or bent and operate as intended. Close knuckle and operate uncoupling lever and check that the lever rotates the rotary lock lift lever, which opens the lock and knuckle. Inspect for loose or missing hardware securing uncoupling lever brackets.

C-C 1005* **Inspect & gauge knuckle, coupler and check slack.** [redacted]

Gauge coupler, checking, Guard Arm Distortion, Contour Wear, Knuckle Nose and Knuckle Stretch. Draft gear components, pocket and coupler pin must be inspected for slack or wear. Using a long bar between the coupler horn and striker face and prying outward, measure the distance between the coupler horn and the striker face. Then move the coupler in as far as possible towards the draft gear and again measure the distance between the coupler horn and the striker face. The distance between the two is the amount of free slack in the draft gear and coupler arrangement. Total slack must not exceed 1/2". Check anti-creep protection.

Total slack Front 1 1/4 Rear 1 1/4

C-C 1006* **Check & record coupler height.** [redacted]

Check and record the following measurements:

	Front	Rear	Clearance Limits
Coupler Height Above Top of Rail	34"	34"	31-1/2" Min. 34-1/2" Max.

Ensure coupler maintained in a level position. Check coupler bounce. Excessive couple bounce and coupler carrier ears not in contact with coupler pocket stop blocks indicate weak or broken coupler carrier springs. Replace worn coupler carrier ears and stop blocks if groove is worn into bottom of block.

C-C 1007* **Check and record specific gravity of each battery cell.** [redacted]

Left Side Battery Box						Right Side Battery Box					
Cell No.		Cell No.		Cell No.		Cell No.		Cell No.		Cell No.	
1	1.20	9	1.20	17	1.20	1	1.19	9	1.20	17	1.20
2	1.20	10	1.20	18	1.20	2	1.19	10	1.20	18	1.20
3	1.20	11	1.20	19	1.20	3	1.20	11	1.20	19	1.20
4	1.20	12	1.20	20	1.20	4	1.20	12	1.20	20	1.20
5	1.23	13	1.21	21	1.21	5	1.20	13	1.21	21	1.20
6	1.23	14	1.21	22	1.21	6	1.20	14	1.21	22	1.20
7	1.23	15	1.22	23	1.21	7	1.21	15	1.23	23	1.21
8	1.23	16	1.22	24	1.21	8	1.21	16	1.23	24	1.21

Facing Battery

Note: If distilled water has been added before check specific gravity, charge the batteries for a minimum of five (5) hours.

If the specific gravity is less than 1.15, replace battery.

After checking specific gravity, turn on as many low voltage load as possible (lights, open doors at door stations, headlights, etc.) Turn off the battery charger main breaker. Allow batteries to discharge for ten (10) minutes and check the voltage drop across each cell on car nos. 183-210, and each pair of cells on all other cars. If the voltage drops to a value lower than one (1) volt on any of the cells, replace the battery with the low cell.

Task ID	Description	Completed By:
C-C 1008	**Clean battery boxes and exterior of battery sets.** Place the battery switch in the off position and open the battery switch box and remove both fuses from the fuse holder. Open the battery boxes and extend the battery trays completely. *Do not use abrasive cleansers, wire brushes, or acid washes inside the battery compartments.* Using clean water and a noncorrosive, non-caustic cleansing agent, wash the interior of the battery boxes and the exterior of the battery set.	[redacted]
C-C 1009	**Inspect battery & fluid level, add de-ionized water if needed.** Visually check batteries for cracks. Battery should be tight in tray with blocking in place. Inspect cables, terminals, connectors and terminal bars. Excessive water consumption indicates too high a charging voltage and little or no water consumption indicates that a battery is being inadequately charged. The electrolyte levels are visible through the plastic containers of the cells and have upper and lower lines on the containers to indicate the maximum and minimum levels. The cells need to be topped-up with distilled or de-ionized water when the electrolyte level is midway between the lower and upper line. Avoid leaks and spills. Note: An electrolyte spill can be neutralized with baking soda. Flush area with large amounts of fresh water once neutralized.	[redacted]
C-C 1010	**Coat battery terminals and lubricate battery tray rails.** With battery terminal wires and jumper bars disconnected, use clean water, a soft bristle brush and noncorrosive, non-caustic cleansing agent to clean all connections. Coat all terminals using Nifecote or a suitable approved substitute. Install jumper bars and connect battery terminal wires. Lubricate rails on the battery tray and ensure trolley moves freely.	[redacted]
1011	**Inspect battery compartment and switch box.** Inspect battery compartment and cover for damage, Ensure locking devices are in place and are effective. Apply battery compartment cover and secure with hardware. Inspect switch box, cover and latches. Clean battery switch box, install the fuses in the fuse holder and place the battery switch in the on position.	[redacted]

Task ID	Description	Completed By:
C-C 1012	**Record wheel measurements.**	[redacted]

Record wheel measurements

	Flange Ht.	Flange Th.	Rim Th.
	Max. 1-1/2"	**Min. 1"**	**Min. 1"**
Gauge readings	24	8	16
Wheel No.1	19	2	42
Wheel No.2	19	2	42
Wheel No. 3	19	3	42
Wheel No. 4	19	2	42
Wheel No. 5	19	2	38
Wheel No. 6	21	4	36
Wheel No. 7	19	4	38
Wheel No. 8	19	3	38

Notify Supervisor if readings are at these points:

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

C-C 1013	**Inspect wheels for defects.**	[redacted]

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
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.

Task ID C-C 1014

Description

Inspect and record brake disc measurements.

Completed By: [redacted]

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.

Disc Wheel 1 Axle Serial No. 347039B

Measurements

	1st	2nd	3rd		Smallest Value
Outside Wall Thickness	.742	.746	.738	=	.738
Inside Wall Thickness	.741	.735	.739		.735
Face-to-Face	3.450	3.449	3.442		3.442

Disc Renewed: Yes ____ No X

Disc Wheel 5 Axle Serial No. FD 48

Measurements

	1st	2nd	3rd		Smallest Value
Outside Wall Thickness	.702	.706	.710	=	.702
Inside Wall Thickness	.773	.779	.781		.773
Face-to-Face	3.435	3.440	3.438		3.435

Disc Renewed: Yes ____ No X

Disc Wheel 4 Axle Serial No. SA7039A

Measurements

	1st	2nd	3rd		Smallest Value
Outside Wall Thickness	.727	.737	.731	=	.727
Inside Wall Thickness	.748	.741	.736		.736
Face-to-Face	3.446	3.438	3.442		3.438

Disc Renewed: Yes ____ No X

Disc Wheel 8 Axle Serial No. ____

Measurements

	1st	2nd	3rd		Smallest Value
Outside Wall Thickness	.711	.715	.704	=	.704
Inside Wall Thickness	.757	.750	.761		.750
Face-to-Face	3.422	3.426	3.430		3.422

Disc Renewed: Yes ____ No X

Task ID	Description	Completed By:
C-C 1015	**Inspect MU and communication cables and receptacles.** Inspect condition of MU and communication cables. Inspect condition of insulation and for signs of a stretched cable. Ensure covers are not missing, broken or cracked, are spring loaded and operate properly. Check for broken receptacle pins. Check the mica insulating plate for cracks and mounting hardware in place and secure. Inspect for dirt/moisture contamination. Remove dirt and debris using air pressure using an electrical cleaner if needed.	[redacted]
C-C 1016	**Inspect HEP cables, receptacles and 480V decals.** Inspect HEP cables for cracks, cuts, damaged insulation or signs of a stretched cable. Check for broken, flashed or partially missing pins. Ensure covers are not missing, broken, cracked and are functioning properly. Ensure "DANGER" - 480 Volt" or Danger - High Voltage decals are in place at each HEP receptacle and are legible.	[redacted]
C-C 1017	**Inspect train line hoses, piping and valves.** Inspect brake pipe and main reservoir hoses for cuts, debris damage, or evidence of being collapsed. Inspect condition of glad-hand and gasket. Ensure dummy couplings are not damaged and secured to the car. Attach free end air hose to dummy coupling. Inspect angle valves and end valves for damage. Make sure handles are not bent or broke spring is in place and effective, and the stops prevent movement of handle in the open position.	[redacted]
C-C 1018	**Inspect draft gear, yoke, coupler & coupler carrier.** Inspect coupler body and parts, yokes, and connections for cracks, broken or missing parts. Replace coupler if cracking is found in the pin protector boss or pivot lug, or if portion of the pin protector boss are missing or broken. To ensure proper locking of coupler, check for the presence of an inverted U-shaped notch located in the lower edge of both side walls of the lock hole shroud. When this recess is clear and unobstructed, the knuckle is properly locked. Inspect draft gear for signs of separation from its substrate or any signs of surface cuts or splits. Separations, cuts, or splits may not exceed 1-1/2 inches in length and 3/4 inch in depth. Check for slack in the rubber pad assembly indicating draft gear is loose in the pocket. Replace the yoke bushings if the inside diameters are worn to 3-3/16 inch.	[redacted]
C-C 1019	**Inspect truck frames, bolsters and ground straps.** Inspect truck frame and bolster for cracks that may effect structural integrity. Ensure ground straps are in place and properly secured.	[redacted]
C-C 1020	**Inspect bolster anchor assemblies, brackets and hardware.** Ensure drag link and bracket and bolster link assembly is not cracked, broken or damaged and is properly secured.	[redacted]
C-C 1021	**Inspect air spring assemblies and chevron springs.** Inspect the air spring rubber assembly for grease and oil contamination, cuts, tears, and excessive abrasion. Closely inspect the rubber around the girdle hoop. Visually check that the leveling valve lever is in the horizontal position. Use spring height GO/NOGO gauge, measure spring height. The normal working height of the air spring is 8-7/8 inches. Also check the position of the truck locking bolt where it passes through the truck locking bracket. Nominal clearance is 3/8 in. and minimum clearance is 1/8 in. Correct centering is equal spacing between truck locking bolt and truck locking bracket. If not in proper position, problem may be broken or missing stabilizer bars or leaking air spring assemblies.	[redacted]

Task ID	Description	Completed By:
C-C 1022	**Inspect vertical & lateral dampers and friction snubbers.** Inspect dampers for broken, or missing mounting hardware, cracked or broken mounting bracket. Check for oil leakage and the reservoir tube wet with oil. Inspect for damaged or dented casings.	[redacted]
C-C 1023	**Inspect laminated traction and side bearer pads.** Check pads for proper position and are not damaged or show indications of stress. Check for sharp metal edges in contact with the free rubber surface. Remove burrs carefully using a file. Do not damage the rubber surface. Inspect and replace pads that have cracks or splits that exceed a depth of 3/8 in.	[redacted]
C-C 1024*	**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 X **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.	[redacted]
C-C 1025	**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-bas grease (WABCO M-7672-01).	[redacted]
C-C 1026	**Inspect pedestal tie bars.** Inspect for damage and is properly secured.	[redacted]
C-C 1027	**Inspect wheel slide speed sensors, check air gap and cabling.** Verify the green wheel slide failure (WSF) indicator light located below the E-7 decelostat controller at the "A" end of the car is illuminated. Inspect and adjust the wheel slide speed sensors. Check the gap between the magnetic pickup assembly and the split hear. Gap should be 0.025 in ± 0.005 in. Use low pressure air (less than 30 psig) to clean and blow off any excessive buildup of dirt.	[redacted]
C-C 1028	**Inspect cabling, conduit, piping and connections.** Inspect under car for indication of a debris strike. Inspect under car wiring and clamps, piping, connections, unions, joints, valves and handles for damage.	[redacted]

Task ID	Description	Completed By:
	Car Exterior	
C-C 1029	**Inspect sides of car, end caps, and diaphragms.** Inspect body panels for damage creating jagged or sharp edges. Check for and remove any signs of graffiti.	[redacted]
C-C 1030	**Inspect side door, access and inspection panels.** Inspect doors and area around doors for damage, jagged or sharp edges. Ensure door windows are not cracked or broken and window gaskets are not torn cracked and are in place. Inspect the truck inspection panels and ensure panels and latches are not damaged, hinge and hinge pin are in place and secured. Inspect condition of cable, hook and bracket at each panel.	
C-C 1031	**Inspect condition of car number, authority & locator decals.** Ensure that all number signs, authority logos, and car locator decals are in place, legible, and not discolored or faded.	[redacted]
C-C 1032	**Inspect condition of wheelchair, no smoking and bike decals.** Ensure that each decal is in its proper place, legible, and not discolored or faded.	
C-C 1033	**Inspect emergency window access & removal decals.** Each emergency access window must have a fireman locator decal and an emergency window removal decal that provides instructions for operation or removal. Decals must be retro-reflective material. Decals must be in place, legible, and not faded or peeling.	
C-C 1034	**Check emergency door locator & instruction decals.** Emergency access door locator and instruction decals must be displayed adjacent to each emergency door pull box at doors 3, 5, 4 and 6. Decals must be retro-reflective material. Decals must in place, legible and not faded or peeling.	[redacted]
C-C 1035	**Inspect all windows and condition of gaskets.** Ensure glass is not cracked or broken, window gaskets are in place and not torn. Emergency window filler gaskets split is at the bottom of the window with a 1 inch separation.	[redacted]
C-C 1036	**Inspect sill steps , horizontal and vertical handholds.** Ensure all sill steps are secure with no indication of loose bolts or fasteners. Inspect for shiny areas or rust around fastener heads indicating the fastener may be loose. With bolt heads and nuts welded, check for broken welds. Ensure steps are not bent, cracked or broken. Outside edge of the tread shall not be more than 2" inside the side of the car. Check that the PVC roof drain is in place, and not broken or damaged. Ensure all handholds are secure with a minimum 2 inches of clearance, not cracked or broken. Check for obstructions preventing the use of the handhold.	[redacted]
C-C 1037	**Inspect condition of evaporator, condenser & speaker grilles.** Inspect grilles on each side of car. Ensure each is properly secured and not damaged. Check that grills are clean and not obstructed.	[redacted]
C-C 1038	**Inspect condition of indicator lights.** Ensure indicator lights and housing is not broken or damaged and operate as intended. Repair or replace indicator lights found defective.	[redacted]

Task ID	Description	Completed By:
C-C 1039	**Inspect passenger door open assembly.** Check hardware for proper securement and for sharp edges.	[redacted]
1040	**Inspect side door steps and yellow anti-slip edge material.** Exterior side steps must be free of tripping hazards. Check for damage resulting from vandalism or from a debris strike. Step grates must not be cracked, broken, bent and properly secured. Ensure the yellow anti-slip material is applied to the outer edge of the step surface, clean and effective.	

Cab Car Exterior

CC-C 1001	**Inspect headlight and auxiliary light housings.** Inspect for damage and housings are properly secured.	[redacted]
CC-C 1002	**Inspect number and marker light housings.** Inspect for damage and housings are properly secured.	
CC-C 1003*	**Inspect front pilot height.** Front Pilot/Plow Height — Left 4¼" — Right 4½" — 3" Min. 6" Max.	
CC-C 1004	**Inspect end door, window, barrier bar and curtain.**	[redacted]
CC-C 1005	**Visually inspect upper horn (if equipped) and bell.**	
CC-C 1006	**Inspect lower horn, housing and piping.** Check for indications of damage caused by a debris strike.	
CC-C 1007	**Inspect axle generator and cabling.**	[redacted]

Car Interior

1041	**Inspect condition and securement of seats.** Ensure hardware securing seat shells to frame and hardware securing frame to wall mounted frames is not loose. Ensure arm rests and seat dividers are secured.	[redacted]
C-C 1042	**Inspect ADA folding seats and wheelchair restraints.** Ensure ADA seats raise and lock in the up position and can be lowered using the release handle. Ensure folding legs are not missing, bent, broken or inoperative.	[redacted]
C-C 1043	**Inspect ADA wheelchair ramp and securement.** Ensure wheel chair ramp is not damaged or broken. Check hinges for damage. Tie down straps should be tight and bottom strap secured properly.	[redacted]
C-C 1044	**Inspect condition and securement of tables.** Check for sharp edges on tables. Replace table top if chipped or cracked. Ensure hardware securing table pedestal at top table and floor mount is tight.	[redacted]
C-C 1045	**Inspect condition of ceiling panels and trim.** Ensure panels and molding is not cracked or broken and molding is in proper position.	[redacted]
C-C 1046	**Inspect condition of window and cove frieze panels.** Ensure cove panels are not cracked, broken, or damaged.	[redacted]
C-C 1047	**Inspect condition of carpet and exit path marking.** Inspect for conditions that may cause a tripping hazard. Check that "T" caps are in place and flush with carpet or tile and do not create a tripping hazard. Ensure low location exit path strips are secured to the sub floor and do not create a tripping hazard.	[redacted]

Task ID	Description
C-C 1048	**Inspect condition of windows and gaskets.** Check for windows that are cracked or broken. Inspect for graffiti etched in window or gasket. Check for gaskets that appear to sag, indicated inner portion of gasket is cut.
C-C 1049	**Check for low voltage grounds.**
C-C 1050	**Check for high voltage system grounds.**
C-C 1051	**Inspect interior lighting.** Ensure all lighting throughout car is working properly. Replace burned out lamps and ballast as needed. Ensure cove light lens and caps are not broken or cracked.
C-C 1052	**Inspect and test emergency lighting.** Ensure emergency lighting operates as intended: a) Ensure the battery switch is in the ON position. b) Ensure all circuit breakers for interior lights are up or closed. c) Open or turn off the "FWD MAIN SERVICES" and "REAR MAIN SERVICES" circuit breakers. d) Check upper level, mid-level and lower level to ensure emergency lighting operates as intended. e) Turn "FWD and REAR" Main Services circuit breakers on.
C-C 1053*	**Measure & record pull force of emergency exit windows.** Randomly select four (4) interior emergency exit windows and perform a manual pull test using a pull force indicator to measure the force required to remove windows. Check form SMP 200 completed at time of last maintenance to avoid testing the same windows. **Maximum Pull Forces:** Cars Numbered **101-182**, Cab Cars **601-637**: 60 lbs. Maximum allowable pull force when measured at an angle parallel to the floor. Cars Numbered **183-210**: 30 lbs. Maximum allowable pull force when measured at a 30 to 60 degree angle to the floor. **Important Note:** If any defective condition is noted on any of the windows in the car or if the pull force limit is exceeded on any of the four (4) windows tested, ***ALL*** of the emergency windows must be tested. Form SMP 200, Emergency Window Tests, must be completed and retained for two (2) years in the car's maintenance file.
C-C 1054	**Inspect emergency exit window decals.** All emergency window exits must be identified with EXIT decals including window removal instructions of photo luminescent material. The decals must be in place, legible, not faded or peeling.
C-C 1055	**Check emergency brake valve cable pull and decals.** Ensure handles are in place, not obstructed from use and decals are in place and legible.
C-C 1056	**Check emergency flashlight, tools and first aid kit.** Inspect condition of frangible glass, gasket and pull ring if equipped. Check that emergency equipment, including emergency flashlight, saw, sledge hammer, pry bar, axe, and a maul is in place and in serviceable condition. Observe LED on flashlight is flashing indicating batteries are in serviceable condition. Inspect condition of bracket and that seal is in tact. Ensure first aid kit is in place and sealed (shrink wrapped). If not sealed, replace first aid kit.
C-C 1057	**Inspect and test destination sign controller and signs.** Check operation of destination sign controller and signs ensuring it is operating as intended.

Task ID	Description	Completed By:
C-C 1058	**Check drinking water fountain.** Check operation of water fountain and inspect for broken or damaged parts. Water pressure should be approx. 14 lbs.	[redacted]
C-C 1059	**Inspect condition of steps and handrails.** Ensure nosing on all steps is not loose and matches the level of the flooring material and is of a contrasting color. Repair or replace loose carpeting, step riser material, and nosing if tripping hazard is found. Handrails must be secure and provide at least 2 inches of usable clearance.	[redacted]
C-C 1060	**Inspect and operate end doors.** Adjust end door closer mechanism or use speed adjusting screw as need for correct operation. Closing force of on door panel leading edge should be approximately 5 lbs. Inspect weather stripping for damage. Lubricate the top hung sliding end doors and hinges on cab car end doors using DriSlide.	[redacted]
C-C 1061	**Inspect all door motors and associated hardware.** Tighten any leaking hose connections. When any internal leakage is found, replace the door motor assembly. Check the electro pneumatic valves for air leaks. If leaks are found, replace the valve.	[redacted]
C-C 1062	**Inspect & test door operation from both door control stations.** Check both door control stations for loose hardware, check all terminal connections for tightness and continuity, the slide panel completely clears door buttons, and the PA/INT indicator lights function. Clean away any dust or lint using low pressure dry compressed air. Clean and apply DriSlide, a molybdenum disulfide lubricant to the side door ball retainers. Test all door functions from each door control station including the door enable feature and the crew door. Check that the door control system energizes the doors by observing that each door open and close in a smooth, complete way checking: a) the doors open and close simultaneously at each door entrance. b) with the doors closed, check that the door rubber seals fit properly and that no gaps exist. c) if the door drags, check by a problem with the door tracking. d) if a door does not open or close fully, there is a problem with the door linkage. Check for worn or frayed bristles on brush seals. And worn or torn rubber seals. Door operator adjustment screw are located on the large cylinder of the door motor operator. Adjust screws include: **Door Cushioning Adjustment:** Use for adjusting the door's cushioning to prevent the door from slamming open and recoiling. Rotate the screw clockwise for more cushioning, or counterclockwise for less cushioning. Make all adjustments in small increments (1/4 turn or less. **Door Opening Speed Adjustment:** Door opening speed should be 1.6 to 2.0 seconds. Rotate the screw clockwise to increase opening speed or counterclockwise to decrease opening speed. Make adjustments in small increments (1/4 turn or less). **Door Closing Speed Adjustment:** Door closing speed should be 2.0 to 2.6 seconds. Rotate the screw clockwise to increase door closing speed or counterclockwise to decrease door closing speed. Make adjustments in small increments (1/4 turn or less).	[redacted]

Task ID	Description	Completed By:
C-C 1063	**Check ADA sonalert, door lights and exterior indicator lights.** Sonalert alarm sounds intermittently and starts when door close buttons are energized and should sound for 2 - 3 seconds before doors begin to close. White door lights will also begin to flash when door close buttons are energized and continues until doors are closed.	[redacted]
C-C 1064	**Check operation and Db level of PA and intercom.**	[redacted]
C-C 1065	**Inspect diaphragms, vestibule curtains and walkway plates.** Diaphragms: Inspect aluminum mounting plate, sponge return spring, stainless steel fasteners and the graphite phenol resin wear plate. Check tightness of hardware, holes or tears in rubber parts, cracks or broken wear plates, bent or cracked face plate or mounting plate. Vestibule Curtains: Inspect upper and lower roller brackets for damage, curtains for holes or tears, and curtains recoil properly and are spring loaded. Check footing condition in walkway areas including the effectiveness of yellow anti slip surface. Replace walkway plugs if missing.	[redacted]
C-C 1066	**Inspect, lubricate and test handbrake.** Inspect handbrake rigging for wear and free movement. Lubricate lever fulcrum pins. Adjust cable slack, if required, and ensure slack adjuster	[redacted]
C-C 1067	**Inspect and test emergency door pull cable rings.** Ensure that the frangible plastic cover is in serviceable condition and is not cracked or broken. Remove the cover housing, pull the cable ring until the door opens or releases sufficiently to be opened manually. Ensure cable is free moving and not frayed. Replace cover housing and tighten hardware.	[redacted]
C-C 1068	**Inspect emergency exit door decals.** Decals must be in place located at emergency door pull locations at doors 3, 5, 4 and 6. Decals must be of photo luminescent material, must be legible, not faded or peeling.	[redacted]
C-C 1069	**Inspect emergency evacuation, safety & system map posters.** Inspect poster frames for sharp edges. Emergency evacuation poster must be displayed in frame located on lower level on sloped wall "A" end of car. Check for graffiti and not bent or creased.	[redacted]
C-C 1070	**Inspect electrical cabinets and lockers and check decals.** Inspect wiring and insulation, check all electrical components for indications of overheating. Check to ensure wires are firmly attached and routed properly. Check circuit breakers ensuring that each spring and latch when closed and circuit breaker does not bind. Check battery charging. Open the access panel at the "B" end circuit breaker panel. Check the battery status monitor for the following: a) Status Normal green lamp is illuminated. b) Battery Percent Capacity meter registers a reading above 50. c) No red lamps are illuminated. Ensure "DANGER - High Voltage" decals are in place and legible on hi-voltage cabinet.	[redacted]

Task ID	Description	Completed By:
C-C 1071	**Check all fire extinguishers.** Remove fire extinguisher and ensure seal is not missing or broken. Check that gauge is not damaged and needle is in the green zone indicating proper pressure. Check for defects in the hose, nozzle, corrosion to canister and other visible defects. Ensure inspection tag is in date (1 year) and will remain in date before next maintenance due date (92 days). Clean compartment, inspect housing and frangible glass. Place fire extinguisher in holder, and is secure.	[redacted]
C-C 1072	**Self test E-7 wheel slide system and correct faults if required.**	[redacted]
C-C 1073	**Inspect HVAC.** a) Check the oil level in the compressor crankcase sight glass. The level should be approximately 1/2 the sight glass. b) Check all electrical circuits for continuity and tight connections. c) Check the following for grounds, using a 500 V megger, a 1 megohm or greater is acceptable: 1. Compressor motor 2. Condenser fan motor 3. Evaporator blower/motor d) Inspect the motors for dirt, friction, vibration, and proper rotation. Vacuum any dirt from the motor. e) Check the oil and refrigerant levels during steady state operating conditions (275 psig discharge pressure and 70 psig suction pressure). f) Check the refrigerant lines for leaks using a leak detector. g) If necessary, repair leak and add refrigerant and oil. h) Monitor the moisture and liquid indicator to determine the system dryness of refrigerant. If a condition other than Safe or Dry is indicated, change the filter-drier assembly. i) Inspect the resilient mounts for set or surface cracks. j) Inspect the surface of the condenser and evaporator coil. Remove any major blockage and clean the surface. k) Inspect the drain pan under the evaporator coil and the drain lines to ensure free water drainage. l) Clean the temperature sensors and thermostats with a soft cloth. m) Lubricate evaporator fan shaft bearings and condenser and evaporator motor bearings with grease. Check alignment tension and condition of fan belts and couplings. If the belt is correctly tensioned, the belt should deflect 1/4 inch at the center of the span if a force of 8 lbs. is applied at that point perpendicular to the belt. n) Test the HVAC system with the heating and air conditioning sequence tester.	[redacted]
C-C 1074	**Inspect condition & securement of windscreens.** Ensure glass wind screens are not broken or cracked with no sharp edges, and are secure in mountings.	[redacted]
C-C 1075	**Inspect condition of bicycle rack securement.** Check securement of brackets and condition of nylon cord.	[redacted]
C-C 1076	**Inspect vertical handholds and handrails.** Ensure all handholds and handrails are properly secured checking for loose bolts or fasteners with at least 2 inches of clearance. Ensure handholds are not bent with no obstruction preventing its use.	[redacted]
C-C 1077	**Inspect heater strip and air filter grilles.** Inspect for loose or missing hardware securing the heater grill or air filter grill. Ensure latches securing the air grilles function properly and tightly secures the air grill in place.	[redacted]

Task ID	Description	Completed By:
C-C 1078	**Inspect all access panel doors and latches.** Ensure all access panel doors, hinges and latches are not broken or damaged. Secure all panel door latches upon completion of inspection.	[redacted]
C-C 1079	**Inspect condition of all trash receptacles.** Inspect trash receptacles for damage, being bent, cracked, or having sharp corners or edges.	[redacted]
	Cab Car Interior	
CC-C 1008	**Inspect wheelchair storage partitions.** Check for loose or missing hardware securing each panel to the brackets. Ensure panels are not cracked broken or chipped.	[redacted]
CC-C 1009	**Inspect compartment door, door latch and door stop.**	[redacted]
CC-C 1010	**Check instrument panel, cab, and indicator lights.** Inspect all gauge and panel lights including speed indicator and gauge dimmer switch. Operate push to test feature to verify lamps are working properly.	[redacted]
CC-C 1011	**Test air brake, safety controls and warning devices.** Check operation of 26B automatic brake valve it functions as intended in all positions. Test graduated release feature, TMS and emergency.	[redacted]
CC-C 1012	**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.	[redacted]
CC-C 1013	**Test air brake gauges.** Verify accuracy of each needle (4) using a CO_2 tester at 100 lbs. of pressure	[redacted]
CC-C 1014	**Perform brake pipe leakage test.** Brake pipe leakage must not exceed 3 lbs. per minute.	[redacted]
CC-C 1015	**Check controller for proper operation.** Ensure controller and reverser interlock as intended. Check electrical cannon plug under desk top to ensure connection is tight.	[redacted]
CC-C 1016	**Ensure proper operation of all exterior lights.** 1) Front Headlight (all positions). 2) Auxiliary lights (steady state and flashing). 3) Marker lights.	[redacted]
CC-C 1017	**Check speed recorder.**	[redacted]
CC-C 1018	**Inspect cab seat and mounting.** Ensure operators seat is securely mounted and is adjustable.	[redacted]
CC-C 1019	**Inspect cab window, mirrors, and sun visor.** Ensure cab windows and windshields are not cracked or broken and provide a clear unobstructed view. Ensure mirror is not damaged, cracked or broken. Check condition of mounting bracket and that hardware is not loose or missing. Inspect condition of sun visor.	[redacted]
CC-C 1020	**Inspect and test windshield wiper.** Ensure windshield wiper blades are in good serviceable condition and windshield wiper(s) are operating properly.	[redacted]

Task ID	Description	Completed By:
CC-C 1021	**Check operation of ATS.** Verify ATS receiver is properly secured and the washboards are aligned. Perform a slap test. Perform ATS test and complete form SMP 8.	[redacted]
CC-C 1022	**Inspect, download, reset time & seal event recorder.**	[redacted]
CC-C 1023*	**Check radio output using Watt meter and voice test radio.**	[redacted]
CC-C 1024*	**Test and record Db level of horn and test bell.** Using a sound level meter, within 1 yr. Of calibration, position meter 100 ft. forward of cab car with the microphone 4 ft. above ground at centerline of track. Minimum sound level of 96db(A) must be registered. Sign and attach sound level printout to cab car maintenance file.	[redacted]
CC-C 1025	**Inspect crew locker door and door latch hardware.**	[redacted]
CC-C 1026	**Inspect crew locker light and test on/off switch.** Inspect light bracket, hardware and protective lens cover. Check on/off switch is functioning.	[redacted]
CC-C 1027	**Check "Quiet Area" sign, bracket and nylon cord.** Replace sign if missing, illegible, cracked or broken. Check condition of nylon cord and wall mounted bracket and hardware.	[redacted]
CC-C 1028	**Check condition of "Compliant" first aid kit.** Ensure "FRA/CPUC" compliant first aid is available and sealed (shrink wrapped). Ensure contents of kit is on back side of container and legible. Replace first aid kit if seal is broken.	[redacted]
CC-C 1029	**Check air hoses, wrench, supplies, and condition of step.** Supplies should include: 1 red flag, 12 fuses, pipe wrench, brake pipe hose.	[redacted]
CC-C 1030	**Stencil PM date on handbrake cover.**	[redacted]
CC-C 1031	**Complete form FRA F6180-49A (Blue Card).**	[redacted]
	Restroom	
C-C 1080	**Inspect the two section sliding doors.** Inspect the door tracks for excessive wear or foreign material that may interfere with proper door operation. Inspect the door panels and door hanger track for signs of excessive wear or damage. Access the door hanger track by unlocking the three locks that secure the hinged vestibule ceiling panel and lower panel. With the doors closed, doors should be parallel to header and jamb. Operate door to check that the bottom guides engage in bottom track and door lock properly engages the striker plate. Adjust the door tracks using the hanger nuts. Adjust doors for smooth operation and correct vibration. Clean door track and apply DriSlide to lubricate roller bearing track.	[redacted]
C-C 1081	**Inspect condition of handholds.** Ensure handholds are properly secured and provide 2 inches of usable clearance.	[redacted]
C-C 1082	**Inspect ceiling and plumbing compartment light.**	[redacted]
C-C 1083	**Inspect sink vanity mirror and wall mounted mirror.** Ensure mirrors are not cracked or broken and is properly secured.	[redacted]
C .084	**Inspect access panel and compartment type doors.**	[redacted]

Task ID	Description	Completed By:
C-C 1085	**Check operation of toilet and sink.** Check toilet flush timing cycle, check for proper metering of water and biocide. Ensure adequate water seal is maintained in bowl. Check water pressure at sink, (14 psi) and ensure water spring loaded faucet plunger operates as intended and water does not drip.	[redacted]
C-C 1086	**Renew coalescent and particulate filters.** Remove and clean threaded polycarbonate bowl and renew coalescent and particulate filter elements.	[redacted]
C-C 1087	**Renew water cooler filter.** 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]
C-C 1088	**Inspect exhaust fan & components in plumbing compartment.**	[redacted]
C-C 1089	**Inspect condition of floor, wall panels and molding.** Inspect floor for tripping hazards, and check wall panels and molding for being cracked or broken.	[redacted]
	Cab Car Interior Cleaning	
CC-CL 1001	**Clean console, side and upper switch and indicator panels.**	[redacted]
CC-CL 1002	**Clean ceiling and wall panels.**	[redacted]
CC-CL 1003	**Clean seat and windows.**	[redacted]
CC-CL 1004	**Sweep and mop floor.**	[redacted]
CC-CL 1005	**Clean crew locker walls and ceiling.**	[redacted]
CL 1006	**Sweep and mop crew locker floor.**	[redacted]
	Interior Cleaning	
C-CL 1007	**Remove all trash (newspapers, cups, etc.).**	[redacted]
C-CL 1008	**Wash ceilings, side Kydex panels, and bulkheads.**	[redacted]
C-CL 1009	**Wash wind screens and kickboards under seats.**	[redacted]
C-CL 1010	**Clean handrails, stanchions, and handhold.**	[redacted]
C-CL 1011	**Clean windows and glass windscreens.**	[redacted]
C-CL 1012	**Inspect for and remove all graffiti.**	[redacted]
C-CL 1013	**Empty trash receptacles and wash interior of receptacles.**	[redacted]
C-CL 1014	**Clean exterior of trash receptacles and replace trash bag.**	[redacted]
C-CL 1015	**Clean interior and exterior of cove light fixtures.**	[redacted]
C-CL 1016	**Remove and clean air grilles over mid-to-upper level stairs.**	[redacted]
C-CL 1017	**Clean air conditioning vents.**	[redacted]
C-CL 1018	**Replace seat bottoms, backs and headrests as required.**	[redacted]
C-CL 1019	**Clean seat shells, seat dividers and armrests.**	[redacted]
C-CL 1020	**Vacuum seat backs and bottoms and clean headrests.**	[redacted]
C-CL 1021	**Clean area between wall and table. Clean and sanitize tables.**	[redacted]
C-CL 1022	**Wipe down heater guards and heater boxes.**	[redacted]
C-CL 1023	**Clean and disinfect water fountain including drain sink.**	[redacted]

Task ID	Description	Completed By:
C-CL 1024	Clean end doors and floor tracks.	[redacted]
C-CL 1025	Clean diaphragms, vestibule curtains and walkway plates.	
C-CL 1026	Clean side doors, windows, and door tracks.	
	Completely clean dirt and debris in door track. Clean the guide slot of the door threshold. Remove any debris in the door pockets. Ensure drain holes are not plugged.	
C-CL 1027	Sweep and mop tile floors and steps.	[redacted]
C-CL 1028	Strip tile floors, reapply sealant if required and wax floors.	
C-CL 1029	Vacuum and shampoo all carpeted areas.	
	Car Exterior Cleaning	
C-CL 1030	Wash door pockets, car end caps, and diaphragms.	
C-CL 1031	Clean side door step platforms and yellow anti slip surface.	
C-CL 1032	Clean cab car window(s).	

Review and 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.

Signature: [redacted]

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

Serial Numbers Car 623 Date 1-20-05 Employee Signature [redacted]

A-End Truck F-92 -847

B-End Truck B92- 789

Axle 1 Serial # 3H7039B

Axle 2 Serial # 5A7034A

Axle 3 Serial # FD 48

Axle 4 Serial # LA 186

Wheel # 1 77309

Wheel # 2 76370

Wheel # 3 76360

Wheel # 4 69774

Wheel # 5

Wheel # 6 94161

Wheel # 7 94132

Wheel # 8

CEL INSTRUMENTS NOISE DOSIMETER SURVEY REPORT

#23

Company name [Bombardier..............................]

User name [redacted]

Location [CMR.................S&R Tank #3]

Department [21 Shop.................. Br. Stapper]

Job Function [..Hom Tester........(Lower..)....]

Employee number [......................................]

Social Security number [......................................]

Model number		[CEL-360]	Serial-no	[......]
Measurement range	(dB)	[70-140]	Version	[1.01]
Frequency weighting	RMS	[A]	Peak	[Lin]
Profiles recorded	stored	[NO]	interval	[---]

	dd/mm/yy	hh:mm:ss		
Start of run	[19/01/05	21:14:54]		
End of run	[19/01/05	21:15:01]		
Duration of run	[	00:00:04]		
Total pause time	[	00:00:03]		
Calibrated before run on	[12/01/05	10:31:40]	at	[113.6] dB
Calibrated after run on	[--/--/--	--------]	at	[---.-] dB
Microphone serial number	[	80007702884]		

Equivalent sound level LAeq	(dB)	[99.0]	Q=3 No threshold
Sound exposure level LAE	(dB)	[105.5]	Q=3 No threshold
Average sound level [SLOW]	(dB)	[98.6]	Q=5 No threshold
RMS maximum level [SLOW]	(dB)	[99.3]	at [19/01/05 21:14:58]
RMS minimum level [SLOW]	(dB)	[97.3]	at [19/01/05 21:14:54]
Peak exceedance level	(dB)	[117.6]	at [19/01/05 21:14:58]
LAS[10.0] %	(dB)	[99.0]	
LAS[50.0] %	(dB)	[98.5]	
LAS[90.0] %	(dB)	[98.0]	
LAS[95.0] %	(dB)	[97.5]	
LAS[99.0] %	(dB)	[97.5]	
Time under-loaded		[0:00:00]	(%) [0.00]
Time overloaded		[0:00:00]	(%) [0.00]

OSHA 1910.95 Occupational Noise Exposure Regulations (1983)

Instrument setup name		[OSHA]		
Threshold level	(dB)	80		90
Criterion level	(dB)	90		90
Exchange rate	(Q)	5		5
Time weighting		[SLOW]		[SLOW]
Time weighted average TWA	(dB)	[---.-]		[---.-]
Actual measured dose	(%)	[0.1]		[0.1]
8 hour projected dose	(%)	[328.5]		[328.5]
Time above or equal to 85 dB		[0:00:04]	(%)	[100.00]
Time above or equal to 90 dB		[0:00:04]	(%)	[100.00]

CEL INSTRUMENTS NOISE DOSIMETER SURVEY REPORT

#623

Company name	[Bombardier]
User name	[[redacted]]
Location	[Camp ... SAZ MK #3]
Department	[2nd Shift ... Bm. Stefan]
Job Function	[Horn Test ... (Upper)]
Employee number	[ ]
Social Security number	[ ]

Model number		[CEL-360]	Serial-no	[......]
Measurement range	(dB)	[70-140]	Version	[1.01]
Frequency weighting	RMS	[A]	Peak	[Lin]
Profiles recorded	stored	[NO]	interval	[---]

	dd/mm/yy	hh:mm:ss		
Start of run	[19/01/05	21:14:01]		
End of run	[19/01/05	21:14:08]		
Duration of run	[	00:00:05]		
Total pause time	[	00:00:02]		
Calibrated before run on	[12/01/05	10:31:40]	at	[113.6] dB
Calibrated after run on	[--/--/--	--------]	at	[---.-] dB
Microphone serial number	[	80007702884]		

Equivalent sound level LAeq	(dB)	[106.8]	Q=3 No threshold
Sound exposure level LAE	(dB)	[113.9]	Q=3 No threshold
Average sound level [SLOW]	(dB)	[105.8]	Q=5 No threshold
RMS maximum level [SLOW]	(dB)	[107.4]	at [19/01/05 21:14:06]
RMS minimum level [SLOW]	(dB)	[100.8]	at [19/01/05 21:14:01]
Peak exceedance level	(dB)	[121.2]	at [19/01/05 21:14:03]
LAS[10.0] %	(dB)	[107.5]	
LAS[50.0] %	(dB)	[106.5]	
LAS[90.0] %	(dB)	[102.0]	
LAS[95.0] %	(dB)	[101.5]	
LAS[99.0] %	(dB)	[101.0]	
Time under-loaded		[0:00:00]	(%) [0.00]
Time overloaded		[0:00:00]	(%) [0.00]

OSHA 1910.95 Occupational Noise Exposure Regulations (1983)

Instrument setup name		[OSHA]		
Threshold level	(dB)	80		90
Criterion level	(dB)	90		90
Exchange rate	(Q)	5		5
Time weighting		[SLOW]		[SLOW]
Time weighted average TWA	(dB)	[43.6]		[43.6]
Actual measured dose	(%)	[0.2]		[0.2]
8 hour projected dose	(%)	[896.3]		[896.3]
Time above or equal to 85 dB		[0:00:05]	(%)	[100.00]
Time above or equal to 90 dB		[0:00:05]	(%)	[100.00]

METROLINK

CENTRAL MAINTENANCE FACILITY - LOS ANGELES

EMERGENCY WINDOW TESTS

Date: 1-20-05 Work Order No.: _____ Car No.: 623

PROCEDURE

1) Randomly select four (4) emergency windows and perform a manual pull test using a digital force gage to measure and record the force required to remove windows.
2) Avoid testing more than two of the samples previously tested within the last 92-day PM cycle.
3) Record in the spaces provided below:
   a) Location codes listed on reverse side
   b) Force required to remove each window
   c) Acceptance as "Y" for *Yes* or "N" for *No*
      - **Coach Cars #101-182, and Cab Cars #601-637:** 60 lbs. Max. allowable width angle of pull force parallel to floor.
      - **Coach Cars #183 & Higher, and Cab Cars #638 & Higher:** 20 to 30 lbs. Allowable with pull force at 30° to 60° angle to floor.
   d) Any appropriate remarks.

NOTE: If any defective condition is noted on any of the windows in the car or if the specified pull force limits are exceeded on any of the four (4) test samples, this will require all emergency windows in the car be tested—not just the initial four (4) test samples. In such cases, a notation must be recorded in the "Comments" section on the reverse side of this form to include: 1) which window(s) failed or defective condition(s) was/were found, 2) brief description of the failure(s)/defective condition(s), 3) that the corrective actions were satisfactorily completed, and 4) who corrected the problem along with corresponding date.

REFERENCES

- MIL-STD-105D, Sampling Procedures and Tables for Inspection by Attributes
- CFR Title 49, Section 239.107, (b) & (c).

Window Test Sample	Location Code	Force (lbs)	Accept Y	Accept N	Remarks
1	I3	74.5		/	
2	I4	74.6		/	
3	I9	63.1		/	
4	I10	68.0		/	

[redacted]

INSPECTOR SIGNATURE

SUPERVISOR SIGNATURE

METROLINK

CENTRAL MAINTENANCE FACILITY - LOS ANGELES

EMERGENCY WINDOW TESTS

Date: 1-20-05 Work Order No.: _____ Car No.: 625

PROCEDURE

1) Randomly select four (4) emergency windows and perform a manual pull test using a digital force gage to measure and record the force required to remove windows.
2) Avoid testing more than two of the samples previously tested within the last 92-day PM cycle.
3) Record in the spaces provided below:
   a) Location codes listed on reverse side
   b) Force required to remove each window
   c) Acceptance as "Y" for *Yes* or "N" for *No*
      - **Coach Cars #101-182, and Cab Cars #601-637:** 60 lbs. Max. allowable width angle of pull force parallel to floor.
      - **Coach Cars #183 & Higher, and Cab Cars #638 & Higher:** 20 to 30 lbs. Allowable with pull force at 30° to 60° angle to floor.
   d) Any appropriate remarks.

NOTE: If any defective condition is noted on any of the windows in the car or if the specified pull force limits are exceeded on any of the four (4) test samples, this will require all emergency windows in the car be tested—not just the initial four (4) test samples. In such cases, a notation must be recorded in the "Comments" section on the reverse side of this form to include: 1) which window(s) failed or defective condition(s) was/were found, 2) brief description of the failure(s)/defective condition(s), 3) that the corrective actions were satisfactorily completed, and 4) who corrected the problem along with corresponding date.

REFERENCES

- MIL-STD-105D, Sampling Procedures and Tables for Inspection by Attributes
- CFR Title 49, Section 239.107, (b) & (c).

Window Test Sample	Location Code	Force (lbs)	Accept Y	Accept N	Remarks
1	U4	73.8		✓	
2	U8	64.3		✓	
3	U12	69.2		✓	
4	U16	61.8		✓	

[redacted]

INSPECTOR SIGNATURE

SUPERVISOR SIGNATURE

METROLINK

CENTRAL MAINTENANCE FACILITY - LOS ANGELES

EMERGENCY WINDOW TESTS

Date: 1-20-05 Work Order No.: _____ Car No.: 623

PROCEDURE

1) Randomly select four (4) emergency windows and perform a manual pull test using a digital force gage to measure and record the force required to remove windows.
2) Avoid testing more than two of the samples previously tested within the last 92-day PM cycle.
3) Record in the spaces provided below:
   a) Location codes listed on reverse side
   b) Force required to remove each window
   c) Acceptance as "Y" for *Yes* or "N" for *No*
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REFERENCES

- MIL-STD-105D, Sampling Procedures and Tables for Inspection by Attributes
- CFR Title 49, Section 239.107, (b) & (c).

Window Test Sample	Location Code	Force (lbs)	Accept Y	Accept N	Remarks
1	L1	52.1			
2	L2	58.5			
3	L5	53.2			
4	L6	56.3			

[redacted]

INSPECTOR SIGNATURE

SUPERVISOR SIGNATURE

METROLINK

CENTRAL MAINTENANCE FACILITY - LOS ANGELES

EMERGENCY WINDOW TESTS

Date: 1-20-05 Work Order No.: _____ Car No.: 623

PROCEDURE

1) Randomly select four (4) emergency windows and perform a manual pull test using a digital force gage to measure and record the force required to remove windows.
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REFERENCES

- MIL-STD-105D, Sampling Procedures and Tables for Inspection by Attributes
- CFR Title 49, Section 239.107, (b) & (c).

Window Test Sample	Location Code	Force (lbs)	Accept Y	Accept N	Remarks
1	U3	65.7		✓	
2	U7	64.2		✓	
3	U11	64.2	✓	✓	
4	U15	72.0		✓	

[redacted]

INSPECTOR SIGNATURE

SUPERVISOR SIGNATURE

US Department of Transportation
Federal Railroad Administration

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 2005 Check if new loco. ☐ If loco. renumbered give previous no.

OPERATED BY	RR CODE	2. OWNED BY (Railroad)	RR CODE
AMTRAK	0 1 5 0	SO. CA. REGIONAL RAIL AUTHORITY	

3. MODEL NO.	4. LOCO. NO.	5. YR. BUILT	6. PROPELLED BY	7. HORSEPOWER	8. TYPE OF SERVICE: PASSENGER ☒ ROAD ☐ YARD ☐ OTHER ☐
TRC-2-85-L	623	1992	NMUC	N/A	

9. STEAM GEN.	GEN. #1.	Working Pressure	GEN. #2.	Working Pressure
NOT EQUIPPED				

10. MAXIMUM PISTON TRAVEL	TYPE OF AIR BRAKE	11. OUT OF USE CREDIT
4.5 INCHES inches	26 C	

12. LAST PERIODIC INSPECTION DATE	PLACE
10-22-04 (M03 INSP.)	LOS ANGELES, CA.

PERIODIC INSPECTIONS

13. DATE MO DAY YR	14. PLACE	15.* ITEMS	16. PERSON CONDUCTING	15.* ITEMS	16. PERSON CONDUCTING	17. CERTIFIED BY
OUT OF USE FROM 1-19-05		TO	1-20-05 LOS ANGELES, CA.			
1-20-05	LOS ANGELES, CA	1-4 & 7	[redacted]	5	[redacted]	[redacted]
OUT OF USE FROM		TO	LOS ANGELES, CA.			
	LOS ANGELES, CA	1-4 & 7		5		
OUT OF USE FROM		TO	LOS ANGELES, CA.			
	LOS ANGELES, CA	1-4 & 7		5		
OF USE FROM		TO	LOS ANGELES, CA.			
	LOS ANGELES, CA	1-4 & 7		5		

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

TESTS

H & H TEST PRESSURE DRILLED

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		LOS ANGELES, CA.		04-19-04 LOS ANGELES, CA.
HAMMER AND HYDRO	736 calendar days		DRILLED		DRILLED
AIRBRAKE 229.27	368 calendar days		LOS ANGELES, CA.		04-19-04 LOS ANGELES, CA.
AIRBRAKE 229.29	NUMBER OF CALENDAR DAYS 1104		LOS ANGELES, CA.		04-23-02 LOS ANGELES, CA.

ertification of true copy.
certif hat this is a true copy of the inspection and repair record of locomotive no. 623

(Officer-in-charge) DATE

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

ORM FRA F6180-49 A (3-85)

OMB Approval No. 2130-0004

GOVERNMENT PROPERTY DO NOT REMOVE

MAINTENANCE ANALYSIS PROGRAM
DIESEL ELECTRIC LOCOMOTIVES AND CAB CARS
INTERMITTENT INDUCTIVE TRAIN STOP INSPECTION

✓ PERIODIC _____ FAILURE

UNIT NO.	LOCATION	DATE	TIME
SCAX 623	CMF - Los Angeles, CA	1-20-05	2:45 PM

	FOUND	LEFT
1. Receiver height should be 4½ ± ¼".	4½"	4½"
2. Resistance B32/B31 to ground. (System de-energized). Should be no less than 250,000 Ohms.	∞	∞
3. Resistance C32/C31 to ground. (System de-energized). Should be no less than 250,000 Ohms.	∞	∞
4. Receiver resistance NA and A. Should be 12 to 21 Ohms.	14 Ω	14 Ω
5. Receiver resistance NS and A. Should be 27 to 41 Ohms.	33 Ω	33 Ω
6. Receiver resistance NA and NS. Should be 37 to 56 Ohms.	44 Ω	44 Ω
System voltage. Should be 30 to 32 volts.	31vdc	31vdc
8. Acknowledge time. Hold ACK switch down and time start of air blow (MV open). Should be 6 to 8 seconds.	7 SEC.	7 SEC.
9. Brake cylinder pressure after ATS reduction. Should be equal or greater than full service.	46 LB.	46 LB.
10. Delay time from MV open (air blow) to ATS penalty (PCS open). Maximum allowed 8 seconds.	8 SEC.	8 SEC.
11. Condition of audible alarm and penalty indicators.	Good	Good
12. Test ATS system by using the ATS portable tester.	Pass	Pass

ATS CONTROL BOX DATE: 9-7-04

ATS CONTROL BOX SERIAL NO.: 0393001

ATS MAGNET VALVE DATE: 1-20-05

REMARKS

ATS CONTROL BOX SEAL NO: 018102

[redacted] _____

MECHANIC

_____ [redacted]

SUPERVISOR

Down. .d File: 015A0623.D20.

Start Time:	Mon Jan 03 03:46:50 2005.
Stop Time:	Thu Jan 20 15:19:57 2005.
Laptop Time:	Thu Jan 20 14:00:10 2005.
Event Recorder Time:	Thu Jan 20 15:19:51 2005.
Previous Download:	Fri Oct 22 07:33:44 2004.
KBytes used since then:	2098.

Analog Thresholds:

A1 (SPD): 2	A2 (BPP): 4	A3 (BCP): 99	A4 (HVT): 5
A5 (ATE): 99	A6 (ATK): 99	A7 (TM+): 99	A8 (TM-): 99

Record Type Summary:

POWERUP	15	LOCO ID	388	DOWNLOAD	1
TEST	4	CHG_TIME	0	ENABLE	196
DISABLE	192	ANL_THRES	0	DELTA	40378
PRIORITY	0	PERIODIC	4697		

Download Programme Version:	3.24
Event Recorder Programme Version:	2.61
Download came from Cab Car:	0623

Downloaded from TS 404 Event Recorder.

Road#: 0623
Wheel Size: 33.0
File: 015A0623.D20

Graph Data

Dnld Date: 05/01/20
Dnld Time: 15:19:51