

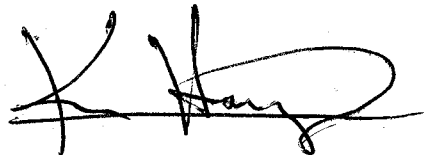
MO-3



Locomotive Release from Shop Form

To be completed on every engine released from the Shop

I have reviewed the work packet for locomotive 2000 on this date 12/18/12 and take no exception to applicable laws, rules and or MMA standards, policies and standards.

Oil sample 



## Service Operations

UNIT \_\_\_\_\_

DATE \_\_\_\_\_

### THROTTLE # INBOUND LOAD TESTS

Eng RPM (900)	EMD	_____	Lube Oil Pres	_____
Eng RPM (1050)	GE	_____	Water Temp	_____
Horsepower		_____	Overspeed Setting	_____
Volts (5.3)	B-23	_____	RACK SETTING	_____
Volts (7)	C-30	_____		
Volts (720)	B-39	_____		

### THROTTLE #1 STALL TEST

OP Mode	(PWR)	_____	
AMPS	(300)	_____	
MGA	(1220)	_____	NOT APPLICABLE TO B-23 AND C-30
Charging Rate	(70v)	_____	

**B-23, B-39, C-30, GP-7 MO3 INSPECTION**



*In-Bound Loadtest Electrical/Mechanical*

WORKED BY:

**ELECTRICAL**

- VERIFY THE OPERATION OF THE GROUND RELAY
- CHECK FOR LOW VOLTAGE GROUNDS (7 watt bulb)
- CHECK OPERATION OF:
  - A. HEATING
- COMPLETE THE IN-BOUND LOAD TEST SHEETS
- CHECK THE FOLLOWING FOR PROPER OPERATION:
  - A. CREW ALERT
  - B. RADIO AND ANTENNA
  - C. AXLE ALT. SPEEDO
  - D. MU ENGINE SHUTDOWN
  - E. FUEL CUT-OFF
  - F. TEST WARNING DEVICES

KS  
↓

**MECHANICAL**

- CLEAN AND SERVICE TOILET AND RESTROOM
- DRAIN RETENTION TANK
- PROPER LUBRICATION? FUEL LEAKS? CAM ROLLER ROTATION? ETC.
- INSPECT FUEL SYSTEM HOSES AND PIPES FOR LEAKS
- INSPECT COOLING SYSTEM:
  - A. CHECK HOSES AND PIPES FOR LEAKS
- CHECK OPERATION OF ENGINE PROTECTION DEVICES:
  - A. CRANKCASE PRESSURE
- VISUALLY INSPECT AIR COMPRESSOR FOR WATER, AIR OR OIL LEAKS
- PERFORM MANUAL AIR BRAKE TEST
  - Verify Flow Gauge
  - 130 main reservoir is 64 + or - 3, reservoir is 60 + o
- PERFORM PENALTY BRAKE TEST
- CHECK FOR CORRECT AIR PRESSURE SETTINGS:
  - A. MAIN RESERVOIR (130 - 140 PSI)
  - B. BRAKE PIPE (90 PSI)
  - C. EQUALIZING RESERVOIR (90 PSI)
  - D. BRAKE CYLINDER (72 - 74 PSI)
  - E. COMPRESSOR CONTROL (130 - 140 PSI +/-5 PSI)
- CHECK FLUID LEVELS BEFORE LOADING:
  - A. ENGINE OIL
  - B. COOLING WATER
  - C. AIR COMPRESSOR OIL
- TEST OPERATION OF THE FOLLOWING DEVICES:
  - A. BELL
  - B. SANDERS (FORWARD, REVERSE, EMERGENCY)
  - C. RADIATOR SHUTTERS

*[Handwritten signature]*

NOTE: 120-130-140 main

# B-23, B-39, C-30, GP-7 MO3 INSPECTION



**MECHANICAL IN HOUSE**

WORKED BY:

REVIEW LAB CODE AND PERFORM A COMPLETE AIRBOX/CRANKCASE INSPECTION IF A LAB CODE EXISTS

CHANGE THE FOLLOWING FILTERS AND ASSOCIATED GASKETS:

FUEL SPIN ON FILTERS. EMD ONLY

*Oil Filters*  
*Fuel Filters*

SOAK BACK FILTER. EMD ONLY

TURBO SPIN ON FILTER. EMD ONLY

COMPLETE FRA INSPECTION (DAILY INSPECTION CHECKLIST)

*R. Hargy*  
*R. Hargy*

**CARBODY**

INSURE SAND NOZZLES AND HOSES ARE IN PLACE AND SECURED. MAKE SURE THEY ARE ALIGNED WITH WHEEL AND TRACK. INSPECT SAND TRAPS AND REPAIR AS NEEDED.

INSPECT COUPLERS & DRAFT GEARS. MAKE REPAIRS AS NECESSARY

CHECK KNUCKLE CLEARANCE AND KNUCKLE THROWER, MAKE REPAIRS AS NEEDED AND APPLY SPARE KNUCKLES (E AND F TYPE) (2.5")

INSPECT PIN LIFTERS CHECKING FOR PROPER HAND CLEARANCE AND ANTI-CREEP

CHECK SNOWPLOW (IF EQUIPPED) FOR HANDHOLDS AND PROPER DISTANCE

CHECK AUTO BLOWDOWNS FOR PROPER OPERATIONS IN AUTOMATIC MODE

ENSURE SUMP DRAINS ARE OPEN AND FREE OF DEBRIS

*R. Hargy*  
*R. Hargy*  
*R. Hargy*  
*R. Hargy*

**TRUCKS**

INSPECT WICK BOLT SECUREMENT AND REPAIR IF NECESSARY

CHECK SUSPENSION BEARING OIL LEVEL

CHECK JOURNAL BOX OIL LEVEL (FILL TO POINT OF OVERFLOW)

CHECK GEAR CASES AND INSPECT BULL GEAR (ADD 6lbs. OF GEARCASE GREASE)

CHECK OIL FILLED GEAR CASES AND FILL (RECORD USAGE BELOW)

# 1 TRACTION MOTOR: OIL USED *6800*

# 2 TRACTION MOTOR: OIL USED *6800*

# 3 TRACTION MOTOR: OIL USED *6800*

# 4 TRACTION MOTOR: OIL USED *6800*

# 5 TRACTION MOTOR: OIL USED \_\_\_\_\_

# 6 TRACTION MOTOR: OIL USED \_\_\_\_\_

*M. Nelson*  
*M. Nelson*  
*M. Nelson*  
*M. Nelson*  
*M. Nelson*  
*M. Nelson*  
*M. Nelson*  
*M. Nelson*

INSPECT ALL BRAKE HANGERS, HEADS, GUIDES AND STRAPS ENSURING BRAKE SHOES ARE IN LINE WITH WHEELS

**CAB**

CHECK FIRE EXTINGUISHERS, DATE AND TAG. REPLACE IF USED OR OUT OF DATE.

CHECK HANDBRAKE AND INSPECT DATE. MAKE REPAIRS AS NECESSARY

*R. Hargy*  
*R. Hargy*

**MISC**

IN ACCORDANCE WITH FRA 229.23. VERIFY AIR GAUGES (+/- 3PSI) (CALIBRATE AT +/- 1PSI, REQUIRES 130 PSI MR)

CHECK ALL FLUID LEVELS, ENGINE OIL, COOLING WATER, AIR COMPRESSOR OIL

DRAIN RETENTION TANK

TOILET MAINTENANCE:

A. INSPECT/REPAIR AS NEEDED TOILET DRAIN VALVE & FLOOR SEALS

*R. Hargy*  
*R. Hargy*

**Cab Seat Inspection:**

A. INSPECT THE VERTICAL ADJUSTMENT LEVER. VERIFY THAT THE LEVER OPERATES AND THAT THE SEAT PAN ADJUSTS UP AND DOWN AND DOES NOT DROP SUDDENLY.

*JS*

B. LUBRICATE PIVOT POINTS

C. INSPECT ROTATION ADJUSTMENT LOCKING PIN. VERIFY THAT THE LOCKING PIN OPERATES (PULL OUT TO RELEASE LOCK) AND THAT THE SEAT ROTATES WHEN UNLOCKED.

*JS*

D. LUBRICATE THE PIN MECHANISM.

E. SEAT PAN COMPONENTS: INSPECT THE FORE-AFT FINE ADJUSTMENT LEVER.

F. VERIFY THAT THE LEVER SLIDES SIDEWAYS TO UNLOCK SEAT FOR/AFT ADJUSTMENT AND SEAT SLIDES FOR/AFT EASILY

G. IF THE SEAT MOVEMENT IS IMPEDED, REMOVE SEAT CUSHION AND INSPECT SEAT PAN ROLLER TRACK FOR DEBRIS, MALFUNCTION, OR LACK OF LUBRICATION.

H. INSPECT SEAT RAILS AND REPLACE IF DAMAGED OR WORN BEYOND PROVIDING SECURE, STABLE MOUNTING OF SEAT.

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**B-23, B-39, C-30, GP-7 MO3 INSPECTION**

I. INSPECT THE FORE/AFT SEAT POSITIONING TRACK. INSPECT THE SEAT RAILS AND REPLACE IF DAMAGED OR WORN BEYOND PROVIDING SECURE, STABLE MOUNTING OF SEAT.	
J. LUBRICATE THE SEAT RAILS WITH SILICONE LUBRICANT.	
K. INSPECT THE BACKREST RAKE ADJUSTMENT KNOB. VERIFY THAT THE KNOB ROTATES EASILY TO ADJUST BACKREST ANGLE.	
L. INSPECT KNOB FOR CRACKS OR SPLITS AND THAT IT IS SECURELY FASTENED.	
M. INSPECT GEAR MECHANISM FOR ANY WEAR OR DAMAGE.	
N. ENSURE THAT THE BACKREST MECHANICAL STOP IS INTACT AND FUNCTIONS AS INTENDED-- PREVENTS THE SEAT BACKREST FROM RECLINING BEYOND APPROXIMATELY 45 DEGREES BACKWARDS FROM A VERTICAL POSITION.	
O: INSPECT THE LUMBAR SUPPORT ADJUSTMENT LEVER. VERIFY THAT THE ADJUSTMENT LEVER OPERATES EASILY TO ADJUST THE LUMBAR SUPPORT.	
P: VERIFY ALL ARMREST FASTENERS ARE SECURE. REPLACE ANY MISSING OR STRIPPED OUT FASTENERS.	
Q: INSPECT ARMREST SWIVEL FASTENERS. ENSURE SWIVEL FASTENER IS SECURE ON EACH ARMREST SUCH THAT THE ARMREST IS WITHOUT SIDE TO SIDE MOVEMENT. ARMREST SHOULD SWIVEL TO VERTICAL. ARMREST SHOULD NOT DROP DOWN PAST IT'S ORIGINAL STOP.	
R: INSPECT SEAT FABRIC ON SEAT PAN AND BACKREST. INSPECT FOR RIPS, TEARS, OR HOLES. SEAT PAN OR BACKREST COMPONENT MAY BE REPLACED IF THERE IS AN EXCESSIVE RIP, TEAR, OR HOLE.	
<b>SEAT PART NUMBERS:</b> Cab Seat, Freight with arms: 2043511 Cab Seat Mid Back: 20425731 Wall Mounted Pedestal: 20435541 Trunion Pedestal Assembly: 20425721 Seat Pedestal Rail Left Side 65": 20422211 Seat Pedestal Rail Right Side 46": 20422221	
<b>INSPECT AND REPAIR AS REQUIRED:</b>	
A. CAB / CARBODY/DOORS/HINGES/WINDOWS/LATCH SEALS/WEATHER STRIPPING AND SEALS/MIRRORS. ALSO LUBRICATE/CHANGE AS NEEDED	JS
A. CLEAN THE CAB, WINDOWS, AND EQUIPMENT	JS
COMPLETE WINTERIZATION SHEET (AUGUST - APRIL)	
WASH LOCOMOTIVE ENGINE/ENGINE ROOM/AND AIR COMPRESSOR ROOM	
WASH THE LOCOMOTIVE	

**B-23, B-39, C-30, GP-7 MO3 INSPECTION**

Revision Date: 8/18/2010  
 Issued By: Tim Scalia



**Electrical in House**

WORKED BY:

SERVICE THE BATTERIES AND COMPLETE JSP-010

JS

VERIFY EVENT RECORDER IS WORKING

JS

CHECK & RECORD THE DATE ON HEAD END DEVICE \_\_\_\_\_

JS

CHECK THE FOLLOWING EQUIPMENT AND THEIR RELATED GUARDS AND LENSES FOR PROPER OPERATION:

JS

CHECK ALL GROUND AND STEP LIGHTS, FRONT AND REAR HEADLIGHTS, DITCH LIGHTS, CAB LIGHTS, GAUGE LIGHTS, NUMBER PLATES, PLATFORM LIGHTS, ALL WARNING AND INDICATOR LIGHTS

JS

**TRACTION MOTORS AND UNDERFRAME**

CHECK ALL BRUSHES

JS

CHECK THE TRACTION MOTOR LEADS, VERIFY NO LEADS ARE RUBBING ON THE FRAME

JS

INSPECT TRACTION MOTOR COVERS AND ENSURE BOLTS ARE IN PLACE AND TIGHT

JS

CHECK M.U. RECEPTACLE PINS AND LIDS. MAKE NECESSARY REPAIRS

JS

MAKE SURE M.U. CABLES DO NOT FOUL COUPLERS

JS

MONTREAL, MAINE, & ATLANTIC RAILWAY  
BRUSH RECORD

UNIT # \_\_\_\_\_

DATE \_\_\_\_\_

MAIN ALTERNATOR

POS	1	2	3	4	B	W
9						
10	OK					
11						
12						
1						
2						

SIGNATURE JS

NO. 1 TRACTION MOTOR

POS	1	2	3	B	W
3					
6	OK				
9					
12					

SIGNATURE JS

NO. 2 TRACTION MOTOR

POS	1	2	3	B	W
3					
6	OK				
9					
12					

SIGNATURE JS

NO. 3 TRACTION MOTOR

POS	1	2	3	B	W
3					
6	OK				
9					
12					

SIGNATURE JS

NO. 4 TRACTION MOTOR

POS	1	2	3	B	W
3					
6	OK				
9					
12					

SIGNATURE JS

AUXILIARY GENERATOR

POS	1	2	3	B	W
2					
4	OK				
8					
10					

SIGNATURE JS

NO. 5 TRACTION MOTOR

POS	1	2	3	B	W
3					
6					
9					
12					

SIGNATURE \_\_\_\_\_

NO. 6 TRACTION MOTOR

POS	1	2	3	B	W
3					
6					
9					
12					

SIGNATURE \_\_\_\_\_

EXCITER GENERATOR

POS	1	2	3	B	W
2					
4	OK				
8					
10					

SIGNATURE JS

Cab Heater

DYNAMIC BRAKING BLOWER MOTORS

FRONT

POS	1	3	W
2			
4	OK		
8			
10			

SIGNATURE \_\_\_\_\_

REAR

POS	1	B	W
2			
4			
8			
10			

SIGNATURE \_\_\_\_\_

FUEL PUMP MOTOR

POS	1	B	W
3			
9	OK		

SIGNATURE \_\_\_\_\_

16. On MUI engines, pull the Governor button and hold back the Lay-shaft while cranking the engine over to prevent unit from starting.

18. Based on the cranking voltages, is any battery suspect of needing replaced? YES NO

2 Battery Units	Specific Gravity				Water Added			Battery Replaced-Reason
	Cell 1	Cell 2	Cell 3	Cell 4	Yes	No	Yes	
Battery 1								0
Section A	<i>Added Water</i>						<input checked="" type="checkbox"/>	
Section B							<input checked="" type="checkbox"/>	
Section C							<input checked="" type="checkbox"/>	
Section D							<input checked="" type="checkbox"/>	

2 Battery Units	Specific Gravity				Water Added			Battery Replaced-Reason
	Cell 1	Cell 2	Cell 3	Cell 4	Yes	No	Yes	
Battery 2								0
Section A	<i>Added Water</i>						<input checked="" type="checkbox"/>	
Section B							<input checked="" type="checkbox"/>	
Section C							<input checked="" type="checkbox"/>	
Section D							<input checked="" type="checkbox"/>	

8 Battery Units	Specific Gravity				Water Added			Battery Replaced-Reason
	Cell 1	Cell 2	Cell 3	Cell 4	Yes	No	Yes	
Battery 1								
Battery 2								
Battery 3								
Battery 4								
Battery 5								
Battery 6								
Battery 7								
Battery 8								

**BATTERY CRANKING VOLTAGE CHART**

	Battery 1	Battery 2	Battery 3	Battery 4	Battery 5	Battery 6	Battery 7	Battery 8
Battery Voltage	<i>33.2</i>	<i>33.8</i>						
	Battery 1	Battery 2	Battery 3	Battery 4	Battery 5	Battery 6	Battery 7	Battery 8
Battery Voltage								

	Battery 1	Battery 2	Battery 3	Battery 4	Battery 5	Battery 6	Battery 7	Battery 8
Cranking Battery Voltage								
Battery Voltage								

	Battery 1	Battery 2	Battery 3	Battery 4	Battery 5	Battery 6	Battery 7	Battery 8
Cranking Battery Voltage								



<b>LOCOMOTIVE</b> <span style="font-size: 2em; font-family: cursive;">2000</span>										<b>DATE</b> <span style="font-size: 1.5em; font-family: cursive;">12-17-12</span>	
--	--	--	--	--	--	--	--	--	--	--	--

	Start Readings				Has Shims			END READING				Has Shims		OLD GAUGE
	Flange Height	Flange Thickness	Rim Thickness	Witness Groove	YES	NO		Flange Height	Flange Thickness	Rim Thickness	Witness Groove	YES	NO	
L#1	0-17	0-0	1.10				L#1							<b>FLANGE THICKNESS MEASUREMENT</b> 0-on 0-1-17/64" 1-on 0-1-15/64" 2-on 0-1-7/32" 3-on 0-1-5/32" 4-on 0-1-7/64" 5-on 0-1-3/64" 6-on 0-1-1/32" 7-on 0-63/64" 8-on 0-15/16"
L#2	0-19	0-0	1.12				L#2							
L#3	0-20	0-0	2.				L#3							
L#4	0-17	0-0	2.4				L#4							
L#5							L#5							
L#6							L#6							
<b>OLD GAUGE</b>														
R#1	0-17	0-0	1.10				R#1							<b>FLANGE HEIGHT MEASUREMENT</b> 0-on 0-1" 0-on 1-1-1/16" 0-on 2-1-1/8" 0-on 3-1-3/16" 0-on 4-1-1/4" 0-on 5-1-5/16" 0-on 6-1-3/8" 2-on 6-1-13/32" 4-on 6-1-7/16" 6-on 6-1-31/64"
R#2	0-20	0-0	1.13				R#2							
R#3	0-20	0-0	2.				R#3							
R#4	0-17	0-0	2.4				R#4							
R#5							R#5							
R#6							R#6							

WEAR LIMITS FOR ROAD & SWITCH LOCOMOTIVES - MINIMUM DAILY REQUIREMENTS

FRA 1 1/2"	MMA 1 7/16"	Flange Height
FRA 7/8"	MMA 15/16"	Flange Thickness
FRA 1"	MMA 1 1/16"	Rim Thickness
FRA 5/16"	MMA 1/4"	Tread Wear

FLANGE HEIGHT MEASUREMENT

WEAR LIMITS - ROAD & SWITCH LOCOS - MIN. 92 DAY REQ				WEAR LIMITS - PASSENGER LOCOS - MIN 92 DAY REQ			
FLANGE Height	Flange THICKNESS	Rim THICKNESS	Tread WEAR	Flange HEIGHT	Flange THICKNESS	Rim THICKNESS	Tread WEAR
FRA 1 1/2"	FRA 7/8"	FRA 1"	FRA 5/16"	FRA 1 1/2"	FRA 7/8"	FRA 1"	FRA 5/16"
MMA 1 7/16"	MMA 1 1/32"	MMA 1 1/8"	MMA 1/4"	MMA 1 7/16"	MMA 1"	MMA 1 1/4"	MMA 1/4"

NEW GAUGE
0-on 17-1-1/16"
0-on 18-1-1/8"
0-on 19-1-3/16"
0-on 20-1-1/4"
0-on 21-1-5/16"
0-on 22-1-3/8"
2-on 22-1-13/32"
4-on 22-1-7/16"
6-on 22-1-15/32"
8-on 22-1-1/2"

**CONVERSION CHART FOR WHEEL DIAMETER**

8= 37"	15= 37 7/8"	22= 38 3/4"	29= 39 5/8"	36= 40 1/2"
9= 37 1/8"	16= 38"	23= 38 7/8"	30= 39 3/4"	37= 40 5/8"
10= 37 1/4"	17= 38 1/8"	24= 39"	31= 39 7/8"	38= 40 3/4"
11= 37 3/8"	18= 38 1/4"	25= 39 1/8"	32= 40"	39= 40 7/8"
12= 37 1/2"	19= 38 3/8"	26= 39 1/2"	33= 40 1/8"	40= 41"
13= 37 5/8"	20= 38 1/2"	27= 39 3/8"	34= 40 1/4"	41= 41 1/8"
14= 37 3/4"	21= 38 5/8"	28= 39 1/2"	35= 40 3/8"	42= 41 1/4"

FLANGE THICKNESS MEASUREMENT

**LOCOMOTIVE RAIL CLEARANCE**

COUPLER HEIGHT		PILOT HEIGHT		HEIGHT OF HORIZONTAL END HANDHOLD OR UNCOUPLING LEVER IF USED AS HORIZONTAL HANDHOLD		LOCO RAIL CLEARANCE
FRA	MAX 34 1/2" MIN 31 1/2"	FRA	MAX 6" MIN 3"	FRONT	53 1/4"	FRA MIN 2 1/2"
MMA	MAX 34 1/2" MIN 32 1/2"	MMA	MAX 6" MIN 3 1/2"	REAR	53 1/4"	MMA MIN 3"

WHEEL DIAMETER MEASUREMENTS ARE TAKEN FROM THE TOP OF THE WITNESS GROOVE 40" DIAMETER WHEELS WITNESS GROOVE = 36"  
 42" DIAMETER WHEEL WITNESS GROOVE = 38"

WHEEL MATCHING STANDARDS FOR 6 AXLE LOCOMOTIVES (FRA & MMA STANDARDS ARE THE SAME)  
 1/2" IS THE MAXIMUM VARIATION ALLOWED, IN WHEEL DIAMETER, BETWEEN ANY 2 WHEELS IN THE SAME TRUCK WITHOUT SHIMS.  
 1 1/4" IS THE MAXIMUM VARIATION ALLOWED, IN WHEEL DIAMETER, BETWEEN ANY 2 WHEELS IN THE SAME TRUCK WITH SHIMS APPLIED.  
 1 1/2" IS THE MAXIMUM VARIATION ALLOWED, IN WHEEL DIAMETER, BETWEEN ANY 2 WHEELS ON DIFFERENT TRUCKS.

NOTE:  
 WHEN FIGURING THE DIFFERENCE IN WHEEL DIAMETER, TO DETERMINE IF SHIMS ARE REQUIRED, YOU MUST USE THE AVERAGE WHEEL DIAMETER FIGURES  
**REMEMBER THIS RULE**  
 0 TO 5 DIAMETER DIFFERENCE NO SHIMS REQUIRED 6 TO 10 DIAMETER DIFFERENCE ADD APPROPRIATE SHIMS TO BOTH BOXES ON BOTH SIDES OVER 10 IN DIAMETER DIFFERENCE REQUIRES WHEEL CHANGE OR TRUED NOTE: ON EMD LOCOMOTIVES USE ONLY ONE 1/2" SHIM EMD PART NUMBER 8455981 SHELLED TREAD AND FLAT SPOTS MUST BE TRUED OR CHANGED WHEN FOUND ON PERIODIC OR UNSCHEDULED MAINTENANCE. KCS CONDEMNING LIMITS FOR SHELLED TREAD ON A SERVICE TRACK:  
 \*ONE SHELLED SPOT 1" OR GREATER IN LENGTH \*ONE SHELLED SPOT WITH A DEPTH OF 1/4" OR MORE.

EMPLOYEES SIGNATURE		SUPERVISORS SIGNATURE
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Montreal, Maine, & Atlantic Railway  
Mechanical Department

Unit Number. 2000

Date 12/18/12

1. Inspect traction motor wicks and report action

#1.	GOOD	GOOD	...	Dec. 18, 2012	M. Nelson
#2.	GOOD	GOOD	...		M. Nelson
#3.	GOOD	GOOD	...		M. Nelson
#4.	GOOD	GOOD	...	Dec. 18, 2012	M. Nelson
#5.			...		
#6.			...		

DRAIN all wick boxes,  
refilled with new oil & rewired

Michael W. Nelson Dec 18, 2012

Montreal, Maine, & Atlantic Railway  
Locomotive

Unit 2000

Date 12-18-12

3 Month Federal Air Work

Signature

1. Inspect and repair air piping and valves for leaks ..... [Signature]
2. Test all air gauges with gauge tester and set if required ..... OK B White
3. With full brake pipe pressure, make a 20lb. reduction, move the cutoff valve to "OUT" position and move the lead - dead valve to "DEAD" position. Brakes must remain applied for 5 minutes ..... [Signature]
4. Cover each trainline hose coupling with hand and test for leakage through valve, then apply blank dummy couplings to the trainline hoses on each end of the unit and open trainline valves. Make a 20lb. reduction with the Automatic, move the cutoff valve to "OUT" position and check for brake pipe leakage. Leakage shall not exceed 5 lb. per minute ..... Mike N.
5. Reduce main reservoir pressure to 85 lbs. by draining #2 main reservoir.(\*). Check cab gauge for leakage from main reservoirs and piping for 3 minutes. Leakage must not exceed an average of 3 lb. per minute during the test ..... Mike N.
6. Drain #1 main reservoir (\*) completely and test check valve between reservoirs. Pressure should remain on the main reservoir gauge in the cab as #1 main reservoir is drained ..... Mike N.
7. Check all MU valve handles to ensure the locking devices work properly. Lubricate or replace as necessary ..... M. Nelson
8. Check knuckle thrower to make sure it opens the knuckle. Lubricate or repair as necessary ..... [Signature]

Note (\*) #1 reservoir is without the check valve. # 2 is with the check valve.

<b>WINTERIZATION</b>	
	Signature
Winterization - All MMA Locomotives. (August - April)	
Inspect front and rear cab door seals replace, as needed (NO TAPE)	
Inspect left and right side window seals replace as needed.	
Inspect Electric cabinet door seals replace as needed.	
Operate Cab Heaters-Check condition of Heater Assembly @ 45o F above Ambient Temperature.	
Operate Window Defrosters-Check condition of Defroster @ 45o F above Ambient Temperature.	
If equipped, test the Auto Dump valve for proper operation.	
Test Manual Water Dump Valves, Proper Handle, Location, Orifice is Open.	
Close Winter/ Summer doors if equipped.	
Check Traction Motor cover gaskets, install as needed.	
Check condition of Cab Door Hinges (Lubricate all Hinges)	
Check condition of Cab Door Locks (Lubricate all Locks)	
Inspect Cab Windows Slider Rail, Adjust Top Rail as needed, Lubricate with Silicone Grease.	
Renew all Wiper Blades.	
Criteria for Door seal Replacement: A. Seal shows signs of Deterioration and or Medium to Heavy Cracking. B. Door seal is Torn or Loose from Door. C. With Door in the fully closed position has noticeable crack between door jam and cab carbody.	
Criteria for Window seal Replacement: A. Seals shows signs of Deterioration and or Medium to Heavy Cracking. B. Seal is Torn or Loose from window seal. C. With windows fully in the closed position there is a gap between window frame and carbody.	

200

**B-23, B-39, C-30, GP-7 MO3 INSPECTION**



**Out Bound Loadtest Electrical/Mechanical**

WORKED BY:

**ELECTRICAL**

JS

- VERIFY THE OPERATION OF THE GROUND RELAY
- CHECK FOR LOW VOLTAGE GROUNDS (7 watt bulb)
- WHILE IN THROTTLE 3 LOAD TEST, CHECK FOR AC GROUNDS
- CHECK OPERATION OF:
  - A. HEATING
- COMPLETE THE IN-BOUND LOAD TEST SHEETS
- GROUND RELAY-(TEST THREE TIMES TO VERY LOCK-OUT)(DYNAMIC & POWER)
- CHECK THE FOLLOWING FOR PROPER OPERATION:
  - A. CREW ALERT
  - B. RADIO AND ANTENNA
  - C. AXLE ALT. SPEEDO
  - D. MU ENGINE SHUTDOWN
  - E. FUEL CUT-OFF
  - F. TEST WARNING DEVICES



**MECHANICAL**

- CLEAN AND SERVICE TOILET AND RESTROOM
- DRAIN RETENTION TANK
- PROPER LUBRICATION? FUEL LEAKS? CAM ROLLER ROTATION? ETC.
- INSPECT FUEL SYSTEM HOSES AND PIPES FOR LEAKS
- INSPECT COOLING SYSTEM:
  - A. CHECK HOSES AND PIPES FOR LEAKS
- CHECK OPERATION OF ENGINE PROTECTION DEVICES:
  - A. CRANKCASE PRESSURE
- VISUALLY INSPECT AIR COMPRESSOR FOR WATER, AIR OR OIL LEAKS
- PERFORM MANUAL AIR BRAKE TEST
- Verify Flow Gauge  
130 main reservoir is 64 + or - 3,  
reservoir is 60 + 0
- PERFORM PENALTY BRAKE TEST
- CHECK FOR CORRECT AIR PRESSURE SETTINGS:
  - A. MAIN RESERVOIR (130 - 140 PSI)
  - B. BRAKE PIPE (90 PSI)
  - C. EQUALIZING RESERVOIR (90 PSI)
  - D. BRAKE CYLINDER (72 - 74 PSI)
  - E. COMPRESSOR CONTROL (130 - 140 PSI +/-5 PSI)
- CHECK FLUID LEVELS BEFORE LOADING:
  - A. ENGINE OIL
  - B. COOLING WATER
  - C. AIR COMPRESSOR OIL
- TEST OPERATION OF THE FOLLOWING DEVICES:
  - A. BELL
  - B. SANDERS (FORWARD, REVERSE, EMERGENCY)
  - C. RADIATOR SHUTTERS

NOTE: 120-130-140 main



# Service Operations

## THROTTLE & OUTBOUND LOAD TESTS

UNIT \_\_\_\_\_

DATE \_\_\_\_\_

Eng RPM (900)	EMD	_____	Lube Oil Pres	_____
Eng RPM (1050)	GE	_____	Water Temp	_____
Horsepower		<u>2105</u>	Overspeed Setting	_____
Volts (5.3)	B-23	_____	RACK SETTING	_____
Volts (7)	C-30	_____		
Volts (720)	B-39	_____		

### THROTTLE #1 STALL TEST

OP Mode	(PWR)	_____	NOT APPLICABLE TO B-23 AND C-30
AMPS	(300)	_____	
MGA	(1220)	_____	
Charging Rate	(70v)	_____	

# Description of Work Performed

Locomotive ID

Time Started

Time Finished

Employee Signature \_\_\_\_\_ Form to fill out completely and Signature must be legible.





Unit: \_\_\_\_\_

Date: \_\_\_\_\_

### DEFECTS FOUND DURING INSPECTION

DEFECT <u>4 Brake Shoes</u>	INSPECTED BY: <u>JS</u>
REPAIR <u>New Shoes</u>	CORRECTED BY: <u>JS</u>

DEFECT _____	INSPECTED BY: _____
REPAIR _____	CORRECTED BY: _____

DEFECT _____	INSPECTED BY: _____
REPAIR _____	CORRECTED BY: _____

DEFECT _____	INSPECTED BY: _____
REPAIR _____	CORRECTED BY: _____

DEFECT _____	INSPECTED BY: _____
REPAIR _____	CORRECTED BY: _____

Unit: \_\_\_\_\_

Date: \_\_\_\_\_

### DEFECTS FOUND DURING INSPECTION

DEFECT _____ _____ _____	INSPECTED BY: _____ _____
REPAIR _____ _____ _____	CORRECTED BY: _____ _____

DEFECT _____ _____ _____	INSPECTED BY: _____ _____
REPAIR _____ _____ _____	CORRECTED BY: _____ _____

DEFECT _____ _____ _____	INSPECTED BY: _____ _____
REPAIR _____ _____ _____	CORRECTED BY: _____ _____

DEFECT _____ _____ _____	INSPECTED BY: _____ _____
REPAIR _____ _____ _____	CORRECTED BY: _____ _____

DEFECT _____ _____ _____	INSPECTED BY: _____ _____
REPAIR _____ _____ _____	CORRECTED BY: _____ _____