

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 5078 on this date 2/26/13 and take no exception to applicable laws, rules and or MMA standards, policies and standards.

TOOK oil SAMPLE - 02-26-13 JBlack
[NEEDS WATER TREATMENT.



Service Operations

UNIT _____

DATE _____

THROTTLE & INBOUND LOAD TESTS

Eng RPM (900)	EMD	_____	Lube Oil Pres	_____
Eng RPM (1050)	GE	_____	Water Temp	_____
Horsepower		<u>2847</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)	_____	

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

MECHANICAL

CLEAN AND SERVICE TOILET AND RESTROOM	
DRAIN RETENTION TANK	J. Anderson
PROPER LUBRICATION? FUEL LEAKS? CAM ROLLER ROTATION? ETC.	J. Black
INSPECT FUEL SYSTEM HOSES AND PIPES FOR LEAKS	J. Black
INSPECT COOLING SYSTEM:	J. Black
A. CHECK HOSES AND PIPES FOR LEAKS	J. Black
CHECK OPERATION OF ENGINE PROTECTION DEVICES:	
A. CRANKCASE PRESSURE	
VISUALLY INSPECT AIR COMPRESSOR FOR WATER, AIR OR OIL LEAKS	J. Black
PERFORM MANUAL AIR BRAKE TEST	J. Black
Verify Flow Gauge	NOTE: 120-130-140 main
130 main reservoir is 64 + or - 3, reservoir is 60 + o	
PERFORM PENALTY BRAKE TEST	
CHECK FOR CORRECT AIR PRESSURE SETTINGS:	J. Black
A. MAIN RESERVOIR (130 - 140 PSI)	J. Black
B. BRAKE PIPE (90 PSI)	J. Black
C. EQUALIZING RESERVOIR (90 PSI)	J. Black
D. BRAKE CYLINDER (72 - 74 PSI)	J. Black
E. COMPRESSOR CONTROL (130 - 140 PSI +/- 5 PSI)	J. Black
CHECK FLUID LEVELS BEFORE LOADING:	J. Black
A. ENGINE OIL	J. Black
B. COOLING WATER	NOSES TREATMENT
C. AIR COMPRESSOR OIL	J. Black
TEST OPERATION OF THE FOLLOWING DEVICES:	
A. BELL	J. Anderson
B. SANDERS (FORWARD, REVERSE, EMERGENCY)	J. Anderson
C. RADIATOR SHUTTERS	

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

SOAK BACK FILTER. EMD ONLY

TURBO SPIN ON FILTER. EMD ONLY

COMPLETE FRA INSPECTION (DAILY INSPECTION CHECKLIST)

X

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

J Black
J Black
J Black
J Black
J. Anderson

TRUCKS

INSPECT WICK BOLT SECUREMENT AND REPAIR IF NECESSARY

CHECK SUSPENSION BEARING OIL LEVEL

CHECK JOURNAL BOX OIL LEVEL (FILL TO POINT OF OVERFLOW) (*CHANGED oil in boxes*)

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

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

J Black
J Black
J Black
J Black

1 TRACTION MOTOR: OIL USED *Completely out*

2 TRACTION MOTOR: OIL USED

3 TRACTION MOTOR: OIL USED *4 pkgs 6800*

4 TRACTION MOTOR: OIL USED *u u*

5 TRACTION MOTOR: OIL USED *u u*

6 TRACTION MOTOR: OIL USED *u u*

J Black
J Black
J Black

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

J Black

CAB

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

CHECK HANDBRAKE AND INSPECT DATE. MAKE REPAIRS AS NECESSARY

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

B. Whit
J. Anderson
J. Anderson

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.

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.

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.

JS
JS
JS
JS
JS
JS
JS

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.	JS
J. LUBRICATE THE SEAT RAILS WITH SILICONE LUBRICANT.	JS
K. INSPECT THE BACKREST RAKE ADJUSTMENT KNOB. VERIFY THAT THE KNOB ROTATES EASILY TO ADJUST BACKREST ANGLE.	JS
L. INSPECT KNOB FOR CRACKS OR SPLITS AND THAT IT IS SECURELY FASTENED.	JS
M. INSPECT GEAR MECHANISM FOR ANY WEAR OR DAMAGE.	JS
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.	JS
O. INSPECT THE LUMBAR SUPPORT ADJUSTMENT LEVER. VERIFY THAT THE ADJUSTMENT LEVER OPERATES EASILY TO ADJUST THE LUMBAR SUPPORT.	JS
P. VERIFY ALL ARMREST FASTENERS ARE SECURE. REPLACE ANY MISSING OR STRIPPED OUT FASTENERS.	JS
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.	JS
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.	JS
SEAT PART NUMBERS: 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	
INSPECT AND REPAIR AS REQUIRED:	
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	B White
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		B White
VERIFY EVENT RECORDER IS WORKING		
CHECK & RECORD THE DATE ON HEAD END DEVICE <u>NA</u>		
CHECK THE FOLLOWING EQUIPMENT AND THEIR RELATED GUARDS AND LENSES FOR PROPER OPERATION:		B w
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		B White
TRACTION MOTORS AND UNDERFRAME		
CHECK ALL BRUSHES		JS / B w
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 # _____

MAIN ALTERNATOR

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

SIGNATURE B White

AUXILIARY GENERATOR

POS	1	2	3	B	W
2					
4	OK				
8					
10					

SIGNATURE B White

EXCITER GENERATOR

POS	1	2	3	B	W
2					
4	OK				
8					
10					

SIGNATURE B White

FUEL PUMP MOTOR

POS	1	B	W
3	OK		
9			

SIGNATURE B White

#2

NO. 1 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. 5 TRACTION MOTOR

POS	1	2	3	B	W
3					
6	OK				
9					
12					

SIGNATURE JS

#1 Traction

NO. 2 TRACTION MOTOR

POS	1	2	3	B	W
3					
6	Bad				
9	Bird nest?				
12					

SIGNATURE JS

Replaced TM
TPG/J.B

NO. 4 TRACTION MOTOR

POS	1	2	3	B	W
3					
6	OK				
9					
12					

SIGNATURE JS

NO. 6 TRACTION MOTOR

POS	1	2	3	B	W
3					
6	OK				
9					
12					

SIGNATURE JS

DYNAMIC BRAKING BLOWER MOTORS

FRONT

POS	1	B	W
2			
4	NA		
8			
10			

SIGNATURE _____

REAR

POS	1	B	W
2			
4	NA		
8			
10			

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								o
Section A	1250	Frozen	Low	Low	✓			
Section B	1300	1275	1250	Low	✓			
Section C	1275	1300	1300	Low	✓			
Section D	Low	1300	Low	1275	✓			

2 Battery Units	Specific Gravity				Water Added			Battery Replaced-Reason
	Cell 1	Cell 2	Cell 3	Cell 4	Yes	No	Yes	
Battery 2								o
Section A	1250	1250	1250	1250		✓		
Section B	1250	1250	1250	1250		✓		
Section C	1250	1250	1250	1275		✓		
Section D	1250	1275	1275	1250		✓		

8 Battery Units	Specific Gravity				Water Added			Battery Replaced-Reason
	Cell 1	Cell 2	Cell 3	Cell 4	Yes	No	Yes	
Battery 1								o
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	35.89	34.4						
	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								

LOCOMOTIVE 5078										DATE 02-26-13	
---	--	--	--	--	--	--	--	--	--	---	--

	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	FLANGE THICKNESS MEASUREMENT
L#1	0-19	00	48										0-on 0-1-17/64"
L#2	0-21	00	46										1-on 0-1-15/64"
L#3	0-18	00	48										2-on 0-1-7/32"
L#4	0-20	00	48										3-on 0-1-5/32"
L#5	0-21	00	46										4-on 0-1-7/64"
L#6	0-20	00	28										5-on 0-1-3/64"
													6-on 0-1-7/32"
													7-on 0-63/64"
													8-on 0-15/16"
R#1	0-18	00	48										
R#2	0-21	06	46										
R#3	0-18	00	48										
R#4	0-21	00	48										
R#5	0-20	00	46										
R#6	0-19	00	28										

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
 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"

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 1/2"	

CONVERSION CHART FOR WHEEL DIAMETER

8= 37"	15= 37 7/8"	22= 38 1/4"	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 7/8"
11= 37 3/8"	18= 38 1/2"	25= 39 1/8"	32= 40"	39= 40 7/8"
12= 37 1/2"	19= 38 3/8"	26= 39 1/4"	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"

NEW GAUGE
 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"

LOCOMOTIVE RAIL CLEARANCE				HEIGHT OF HORIZONTAL END HANDHOLD OR UNCOUPLING LEVER IF USED AS HORIZONTAL HANDHOLD		LOCO RAIL CLEARANCE	
COUPLER HEIGHT	FRONT	PILOT HEIGHT	FRONT	FRONT	REAR	FRONT	REAR
FRA	MAX 34 1/2" MIN 31 1/2"	33 1/2"	FRA MAX 6" MIN 3"	6	FRA MIN 30" MMA MIN 30" FRA MAX 50" MMA MAX 50"	FRA MIN 2 1/2"	MMA MIN 3"
MMA	MAX 34 1/2" MIN 32 1/2"	33 1/2"	MMA MAX 6" MIN 3 1/2"	6			

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
 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 J. W. Black SUPERVISORS SIGNATURE

Montreal, Maine, & Atlantic Railway
Mechanical Department

Unit Number. _____

Date _____

1. Inspect traction motor wicks and report action

- #1. Coming out (motor) ... New-Brass pit TP6/1JB
- #2. Coming out (axle) ... ✓ TP6/1JB
- #3. OK OK ...
- #4. OK OK ...
- #5. OK OK ...
- #6. OK OK ...

[Handwritten signature]

Montreal, Maine, & Atlantic Railway
Locomotive

Unit 5078

Date 2-27-13


3 Month Federal Air Work

Signature
J. P. Boudle

1. Inspect and repair air piping and valves for leaksJ. P. Boudle
2. Test all air gauges with gauge tester and set if required.....J. P. Boudle
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.....J. P. Boudle
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.....J. P. Boudle
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.....J. P. Boudle
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.....J. P. Boudle
7. Check all MU valve handles to ensure the locking devices work properly. Lubricate or replace as necessary.....J. P. Boudle
8. Check knuckle thrower to make sure it opens the knuckle. Lubricate or repair as necessary.....J. P. Boudle

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

WINTERIZATION

WINTERIZATION	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.	

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



Out Bound Loadtest Electrical/Mechanical

WORKED BY:

ELECTRICAL

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

J. P. Boudreau

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

J. P. Boudreau
↓

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

J. P. Boudreau
↓

Verify Flow Gauge
 130 main reservoir is 64 + or - 3,
 reservoir is 60 + 0

NOTE: 120-
130-140 main

130-141

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)

J. P. Boudreau
↓

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



UNIT 5028
 DATE 2-28-13

Service Operations

THROTTLE 8 OUTBOUND LOAD TESTS

Eng RPM (900)	EMD	_____	Lube Oil Pres	<u>95</u>
Eng RPM (1050)	GE	_____	Water Temp	<u>181</u>
Horsepower		<u>2850</u>	Overspeed Setting	<u>19.50</u>
Volts (5.3)	B-23	_____	RACK SETTING	<u>↓</u>
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

Locomotive ID	Time Started	Time Finished

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

Description of Work Performed

Locomotive ID _____

Time Started _____

Time Finished _____

Unit: _____

Date: _____

DEFECTS FOUND DURING INSPECTION

DEFECT <u>#1 Traction motor</u> <u>Bird nesting</u>	INSPECTED BY: <u>JS</u>
REPAIR <u>Replaced TM #1 with new E-motor / same wheel</u>	CORRECTED BY: <u>J. Black</u>

DEFECT <u>#2 wheel thin flange, High flange</u> <u>coming out</u>	INSPECTED BY: <u>J. Black</u>
REPAIR <u>Replaced #2 TM & wheel - with good used</u> <u>motor/wheel combo</u>	CORRECTED BY: <u>J. Black</u>

DEFECT <u>AXLE DUST SEAL MISSING on #5 wheel</u>	INSPECTED BY: <u>J. Black</u>
REPAIR <u>Replaced w/ New Seal & Clamp</u>	CORRECTED BY: <u>J. Black</u>

DEFECT <u>Oil in Hyatt style journal boxes</u> <u>Dirty, Rusty.</u>	INSPECTED BY: <u>J. Black</u>
REPAIR <u>Changed oil in boxes, Rewound</u> <u>plugs</u>	CORRECTED BY: <u>JB/gjs</u>

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: _____