

92 DAY INSPECTION 8553

Locomotive Release from Shop Form

To be completed on every engine released from the Shop

I have reviewed the work packet for locomotive 8553 on this
date 12/6/10 and take no exception to applicable laws, rules and or MMA
standards, policies and standards.

Service Operations

THROTTLE 8 INBOUND LOAD TESTS

UNIT 8553

DATE 12-2-10

| | | | | |
|----------------|------|---------------------------|-------------------|-------------|
| Eng RPM (900) | EMD | _____ | Lube Oil Pres | _____ |
| Eng RPM (1050) | GE | _____ | Water Temp | <u>180°</u> |
| Horsepower | | <u>3580</u> | Overspeed Setting | _____ |
| Volts (5.3) | B-23 | _____ | RACK SETTING | _____ |
| Volts (7) | C-30 | _____ | | |
| Volts (720) | B-39 | 650 <u>687</u> | | |

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

| <i>In-Bound Loadtest Electrical/Mechanical</i> | WORKED BY: |
|--|--|
| ELECTRICAL | <i>PWC</i> |
| VERIFY THE OPERATION OF THE GROUND RELAY | <i>PWC</i> |
| CHECK FOR LOW VOLTAGE GROUNDS (7 watt bulb) | <i>PWC</i> |
| WHILE IN THROTTLE 3 LOAD TEST, CHECK FOR AC GROUNDS | — |
| CHECK OPERATION OF: | — |
| A. HEATING | <i>PWC</i> |
| COMPLETE THE IN-BOUND LOAD TEST SHEETS | <i>PWC</i> |
| GROUND RELAY-(TEST THREE TIMES TO VERY LOCK-OUT)(DYNAMIC & POWER) | <i>PWC</i> |
| CHECK THE FOLLOWING FOR PROPER OPERATION: | — |
| A. CREW ALERT | <i>PWC</i> |
| B. RADIO AND ANTENNA | <i>PWC</i> |
| C. AXLE ALT. SPEEDO | <i>PWC</i> |
| D. MU ENGINE SHUTDOWN | <i>PWC</i> |
| E. FUEL CUT-OFF | <i>PWC</i> |
| F. TEST WARNING DEVICES | <i>PWC</i> |
| MECHANICAL | |
| CLEAN AND SERVICE TOILET AND RESTROOM | <i>TPG / Corner</i> |
| DRAIN RETENTION TANK | <i>Joe Amas</i> |
| PROPER LUBRICATION? FUEL LEAKS? CAM ROLLER ROTATION? ETC. | <i>PWC</i> |
| INSPECT FUEL SYSTEM HOSES AND PIPES FOR LEAKS | <i>PWC</i> |
| INSPECT COOLING SYSTEM: | — |
| A: CHECK HOSES AND PIPES FOR LEAKS | <i>PWC</i> |
| CHECK OPERATION OF ENGINE PROTECTION DEVICES: | <i>PWC</i> |
| A. CRANKCASE PRESSURE | — |
| VISUALLY INSPECT AIR COMPRESSOR FOR WATER, AIR OR OIL LEAKS | <i>PWC</i> |
| PERFORM MANUAL AIR BRAKE TEST | <i>PWC</i> |
| Verify Flow Gauge 130 main reservoir is 64 + or - 3, reservoir is 60 + o | NOTE: 120- 130-140 main <i>PWC</i> |
| PERFORM PENALTY BRAKE TEST | <i>PWC</i> |
| CHECK FOR CORRECT AIR PRESSURE SETTINGS: | — |
| A. MAIN RESERVOIR (130 - 140 PSI) | <i>PWC</i> |
| B. BRAKE PIPE (90 PSI) | <i>PWC</i> |
| C. EQUALIZING RESERVOIR (90 PSI) | <i>PWC</i> |
| D. BRAKE CYLINDER (72 - 74 PSI) | <i>PWC</i> |
| E. COMPRESSOR CONTROL (130 - 140 PSI +/- 5 PSI) | <i>PWC</i> |
| CHECK FLUID LEVELS BEFORE LOADING: | <i>PWC</i> |
| A: ENGINE OIL | <i>TPG/HG</i> |
| B: COOLING WATER | <i>PWC</i> |
| C: AIR COMPRESSOR OIL | <i>TPG</i> |
| TEST OPERATION OF THE FOLLOWING DEVICES: | — |
| A. BELL | <i>PWC</i> |
| B. SANDERS (FORWARD, REVERSE, EMERGENCY) | <i>TPG/PWC</i> |
| C. RADIATOR SHUTTERS | — |

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 | <i>Paul Conley</i> |
| VERIFY EVENT RECORDER IS WORKING | <i>P. Conley</i> |
| CHECK & RECORD THE DATE ON HEAD END DEVICE <u>3-11-09</u> | <i>Quell</i> |
| COMPLETE THE HEAD END DEVICE CONNECTOR SHEET | |
| CHECK THE FOLLOWING EQUIPMENT AND THEIR RELATED GUARDS AND LENSES FOR PROPER OPERATION: | <i>P. Conley</i> |
| 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 | <i>P. Conley</i> |
| TRACTION MOTORS AND UNDERFRAME | |
| CHECK THE TRACTION MOTOR LEADS, VERIFY NO LEADS ARE RUBBING ON THE FRAME | <i>P. Conley</i> |
| INSPECT TRACTION MOTOR COVERS AND ENSURE BOLTS ARE IN PLACE AND TIGHT | <i>P. Conley</i> |
| CHECK M.U. RECEPTACLE PINS AND LIDS. MAKE NECESSARY REPAIRS | <i>P. Conley</i> |
| MAKE SURE M.U. CABLES DO NOT FOUL COUPLERS | <i>P. Conley</i> |

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

| | |
|---|--------------------|
| G. IF THE SEAT MOVEMENT IS IMPEDED, REMOVE SEAT CUSHION AND INSPECT SEAT PAN ROLLER TRACK FOR DEBRIS, MALFUNCTION, OR LACK OF LUBRICATION. | <i>P. Berdegen</i> |
| H. INSPECT SEAT RAILS AND REPLACE IF DAMAGED OR WORN BEYOND PROVIDING SECURE, STABLE MOUNTING OF SEAT. | <i>P. Berdegen</i> |
| 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. | <i>P. Berdegen</i> |
| J. LUBRICATE THE SEAT RAILS WITH SILICONE LUBRICANT. | <i>P. Berdegen</i> |
| K. INSPECT THE BACKREST RAKE ADJUSTMENT KNOB. VERIFY THAT THE KNOB ROTATES EASILY TO ADJUST BACKREST ANGLE. | <i>P. Berdegen</i> |
| L. INSPECT KNOB FOR CRACKS OR SPLITS AND THAT IT IS SECURELY FASTENED. | <i>P. Berdegen</i> |
| M. INSPECT GEAR MECHANISM FOR ANY WEAR OR DAMAGE. | <i>P. Berdegen</i> |
| 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. | <i>P. Berdegen</i> |
| O: INSPECT THE LUMBAR SUPPORT ADJUSTMENT LEVER. VERIFY THAT THE ADJUSTMENT LEVER OPERATES EASILY TO ADJUST THE LUMBAR SUPPORT. | <i>P. Berdegen</i> |
| P: VERIFY ALL ARMREST FASTENERS ARE SECURE. REPLACE ANY MISSING OR STRIPPED OUT FASTENERS. | <i>P. Berdegen</i> |
| 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. | <i>P. Berdegen</i> |
| 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. | <i>P. Berdegen</i> |
| 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 | <i>P. Berdegen</i> |
| A. CLEAN THE CAB, WINDOWS, AND EQUIPMENT | <i>P. Berdegen</i> |
| COMPLETE WINTERIZATION SHEET (AUGUST - APRIL) | <i>P. Berdegen</i> |
| WASH LOCOMOTIVE ENGINE/ENGINE ROOM/AND AIR COMPRESSOR ROOM | <i>P. Berdegen</i> |
| WASH THE LOCOMOTIVE | <i>P. Berdegen</i> |

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 | _____ |
| WITH THE ENGINE WARM, PRESSURE TEST COOLING SYSTEM AT 20 PSI FOR 15 MINUTES AND IF THE PRESSURE ON THE GAUGE DOES NOT DROP, THEN NO FURTHER ACTION IS REQUIRED | _____ |
| 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) | _____ |
| 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. | <i>P. Lebeles</i> |
| 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") | <i>P. Lebeles</i> |
| INSPECT PIN LIFTERS CHECKING FOR PROPER HAND CLEARANCE AND ANTI-CREEP | <i>P. Lebeles</i> |
| CHECK SNOWPLOW (IF EQUIPPED) FOR HANDHOLDS AND PROPER DISTANCE | <i>P. Lebeles</i> |
| CHECK AUTO BLOWDOWNS FOR PROPER OPERATIONS IN AUTOMATIC MODE | |
| ENSURE SUMP DRAINS ARE OPEN AND FREE OF DEBRIS | _____ |
| TRUCKS | |
| INSPECT WICK BOLT SECUREMENT AND REPAIR IF NECESSARY <i>(See defect sheet)</i> | <i>Amer</i> |
| CHECK SUSPENSION BEARING OIL LEVEL | <i>Amer</i> |
| CHECK JOURNAL BOX OIL LEVEL (FILL TO POINT OF OVERFLOW) | <i>Amer</i> |
| CHECK GEAR CASES AND INSPECT BULL GEAR (ADD 6lbs. OF GEARCASE GREASE) | <i>Amer</i> |
| CHECK OIL FILLED GEAR CASES AND FILL (RECORD USAGE BELOW) | <i>Amer</i> |
| # 1 TRACTION MOTOR: OIL USED <u>6800</u> | <i>Amer</i> |
| # 2 TRACTION MOTOR: OIL USED <u>6800</u> | <i>Amer</i> |
| # 3 TRACTION MOTOR: OIL USED <u>6800</u> | <i>Amer</i> |
| # 4 TRACTION MOTOR: OIL USED <u>6800</u> | <i>Amer</i> |
| # 5 TRACTION MOTOR: OIL USED <u>X</u> | _____ |
| # 6 TRACTION MOTOR: OIL USED <u>X</u> | _____ |
| INSPECT ALL BRAKE HANGERS, HEADS, GUIDES AND STRAPS. ENSURING BRAKE SHOES ARE IN LINE WITH WHEELS | <i>P. Lebeles</i> |
| CAB | |
| CHECK FIRE EXTINGUISHERS, DATE AND TAG. REPLACE IF USED OR OUT OF DATE. | <i>P. Lebeles</i> |
| CHECK CAB SEATS FOR PROPER OPERATION INSURING ALL BOLTS ARE IN PLACE AND TIGHT. | <i>P. Lebeles</i> |
| CHECK HANDBRAKE AND INSPECT DATE. MAKE REPAIRS AS NECESSARY | <i>P. Lebeles</i> |
| MISC | |
| IN ACCORDANCE WITH FRA 229.23. VERIFY AIR GAUGES (+/- 3PSI) (CALIBRATE AT +/- 1PSI, REQUIRES 130 PSI MR) | <i>P. Lebeles</i> |
| CHECK ALL FLUID LEVELS, ENGINE OIL, COOLING WATER, AIR COMPRESSOR OIL | <i>P. Lebeles</i> |
| DRAIN RETENTION TANK | <i>P. Lebeles</i> |
| TOILET MAINTENANCE: | <i>T.P.G.</i> |
| A. INSPECT/REPAIR AS NEEDED TOILET DRAIN VALVE & FLOOR SEALS | <i>T.P.G.</i> |
| 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. | <i>P. Lebeles</i> |
| B. LUBRICATE PIVOT POINTS | <i>P. Lebeles</i> |
| C. INSPECT ROTATION ADJUSTMENT LOCKING PIN. VERIFY THAT THE LOCKING PIN OPERATES (PULL OUT TO RELEASE LOCK) AND THAT THE SEAT ROTATES WHEN UNLOCKED. | <i>P. Lebeles</i> |
| D. LUBRICATE THE PIN MECHANISM. | <i>P. Lebeles</i> |
| E. SEAT PAN COMPONENTS: INSPECT THE FORE-AFT FINE ADJUSTMENT LEVER. | <i>P. Lebeles</i> |
| F. VERIFY THAT THE LEVER SLIDES SIDEWAYS TO UNLOCK SEAT FOR/AFT ADJUSTMENT AND SEAT SLIDES FOR/AFT EASILY | <i>P. Lebeles</i> |

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 | DWC |
| CHECK FOR LOW VOLTAGE GROUNDS (7 watt bulb) | DWC |
| WHILE IN THROTTLE 3 LOAD TEST, CHECK FOR AC GROUNDS | DWC |
| CHECK OPERATION OF: | |
| A. HEATING | DWC |
| COMPLETE THE IN-BOUND LOAD TEST SHEETS | DWC |
| GROUND RELAY-(TEST THREE TIMES TO VERY LOCK-OUT)(DYNAMIC & POWER) | DWC |
| CHECK THE FOLLOWING FOR PROPER OPERATION: | |
| A. CREW ALERT | |
| B. RADIO AND ANTENNA | DWC |
| C. AXLE ALT. SPEEDO | |
| D. MU ENGINE SHUTDOWN | DWC |
| E. FUEL CUT-OFF | DWC |
| F. TEST WARNING DEVICES | DWC |
| MECHANICAL | |
| CLEAN AND SERVICE TOILET AND RESTROOM | AMES |
| DRAIN RETENTION TANK | AMES |
| PROPER LUBRICATION? FUEL LEAKS? CAM ROLLER ROTATION? ETC. | AMES |
| INSPECT FUEL SYSTEM HOSES AND PIPES FOR LEAKS | AMES |
| INSPECT COOLING SYSTEM: | |
| A: CHECK HOSES AND PIPES FOR LEAKS | DWC/AMES |
| CHECK OPERATION OF ENGINE PROTECTION DEVICES: | |
| A. CRANKCASE PRESSURE | AMES/DWC |
| VISUALLY INSPECT AIR COMPRESSOR FOR WATER, AIR OR OIL LEAKS | DWC |
| PERFORM MANUAL AIR BRAKE TEST | AMES |
| Verify Flow Gauge | NOTE: 120-130-140 main |
| 130 main reservoir is 64 + or - 3, reservoir is 60 + o | AMES/DWC |
| PERFORM PENALTY BRAKE TEST | AMES/DWC |
| CHECK FOR CORRECT AIR PRESSURE SETTINGS: | |
| A. MAIN RESERVOIR (130 - 140 PSI) | AMES |
| B. BRAKE PIPE (90 PSI) | AMES |
| C. EQUALIZING RESERVOIR (90 PSI) | AMES |
| D. BRAKE CYLINDER (72 - 74 PSI) | AMES |
| E. COMPRESSOR CONTROL (130 - 140 PSI +/- 5 PSI) | AMES |
| CHECK FLUID LEVELS BEFORE LOADING: | |
| A: ENGINE OIL | DWC |
| B: COOLING WATER | DWC |
| C: AIR COMPRESSOR OIL | DWC |
| TEST OPERATION OF THE FOLLOWING DEVICES: | |
| A. BELL | AMES |
| B. SANDERS (FORWARD, REVERSE, EMERGENCY) | AMES |
| C. RADIATOR SHUTTERS | --- |

JSP-010 (BATTERY MAINTENANCE AND QUALIFICATION)

JOB SPECIFIC PROCESS

Locomotive Type: ALL MODELS

Valid for Road Numbers: (All Models)

Overview: This job process sheet will assist with the maintenance and qualification of batteries.

SPECIAL TOOLS OR EQUIPMENT:

SEQUENCE OF JOB STEPS

Please print your name.
NO signatures

1. Ensure the locomotive is shutdown, discharged, all of the circuit breakers are open and the battery knife switch is open.

Paul Coughe

Battery Qualification/Maintenance

2. **NOTE: If batteries are dead, connect the charger until the charge rate falls below 10 amps to determine state of charge. Readings under 20 V are suspect for units with just 2 batteries.**

3. Insert hose stem into battery cell and squeeze bulb.

4. Release pressure until enough acid solution is drawn into the tube allowing the float to float freely. Be sure float does not touch rubber stopper at the top of the tube.

5. The float reading at the water line is the uncorrected charge level of the battery.

6. Read and record the specific gravity of all 16 pilot cells. "record readings below": acceptable range is 1.225 – 1.300 (if out of this range notify tech support)

Note 1: the sheet below is set up for 2 or 8 batteries as some units have 8 batteries.

Note 2: accurate readings cannot be obtained if water has recently been added to cells. Differences of 50 points or more between readings in battery cells may indicate pending battery failure.

7. Based on the above specific gravity readings, do any batteries need replaced? Remember, if the unit came in with already dead batteries, an attempt to charge the batteries must be made before taking the specific gravity readings. YES

8. Return acid to cell from which it was drawn.

9. Be sure all vent plugs are replaced and tight.

10. With Unit shut down measure the voltage reading across each battery at the terminals, record readings on the chart below.

11. Make a general check of the battery as to proper blocking, clean and tight connections at all points, and any unusual appearance or condition. If any unusual appearance or conditions exit, like corrosion, clean with scotch-brite buffer or wire br

12. Apply approved protective coating to connections after terminals are cleaned and dried

13. Add water as required (Add water to bottom of filler neck).

Battery Cranking Voltage Test

14. Close battery knife switch, and circuit breakers.

15. Open the injector toggle switch, on EUI units to prevent unit from starting.

NOTE: Battery cranking voltage readings do not need to be taken on Air Start Locomotives.

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**

QWC

| 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 | | | | | | | | |
| Section B | | | | | | | | |
| Section C | | | | | | | | |
| Section D | | | | | | | | |

| 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 | | | | | | | | |
| Section B | | | | | | | | |
| Section C | | | | | | | | |
| Section D | | | | | | | | |

| 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 | 33.4 | 33.6 | | | | | | |
| Battery Voltage | | | | | | | | |
| Cranking Battery Voltage | | | | | | | | |
| Battery Voltage | | | | | | | | |
| Cranking Battery Voltage | | | | | | | | |

Water Levels to low for good reading. BT Voltage tested ok,

QWC

Description of Work Performed

Locomotive ID

8553

Time Started

0700

Time Finished

R-4 wick Box Broke. On inner
gear case side

Description of Work Performed

Locomotive ID

Time Started

Time Finished

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

Unit: 8553

Date: 12-310

DEFECTS FOUND DURING INSPECTION

| | |
|---|-----------------------------|
| DEFECT <u>Carbody Fire Ext. out of date</u> | INSPECTED BY: <u>PWC</u> |
| REPAIR <u>Replace with New</u> | CORRECTED BY: <u>PWC</u> |

| | |
|---|----------------------------------|
| DEFECT <u>R.4 with Box Brake, has a crack on inside by gear case cracked in 3 spots</u> | INSPECTED BY: <u>Ames</u> |
| REPAIR _____ | CORRECTED BY: <u>PWC/Ames</u> |

| | |
|---------------------------------------|------------------------------|
| DEFECT <u>155 16 POP leaking air.</u> | INSPECTED BY: <u>Ames</u> |
| REPAIR <u>Replaced 155 16 POP</u> | CORRECTED BY: <u>Ames</u> |

P.C

| | |
|--|------------------------------|
| DEFECT <u>Rear truck out hose leaking air</u> | INSPECTED BY: <u>Ames</u> |
| REPAIR <u>applied pipe welder to hose fittings</u> | CORRECTED BY: <u>Ames</u> |

P.C

| | |
|--|------------------------------|
| DEFECT <u>L Ring Brake Cylinders leaking at Pipe flange.</u> | INSPECTED BY: <u>Ames</u> |
| REPAIR <u>Repaired O ring</u> | CORRECTED BY: <u>Ames</u> |

P.C

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: _____ _____ |

WINTERIZATION

| WINTERIZATION | Signature |
|--|--------------------|
| Winterization - All MMA Locomotives. (August - April) | |
| Inspect front and rear cab door seals replace, as needed (NO TAPE) | <i>D. Anderson</i> |
| Inspect left and right side window seals replace as needed. | <i>D. Anderson</i> |
| Inspect Electric cabinet door seals replace as needed. | <i>D. Anderson</i> |
| Operate Cab Heaters-Check condition of Heater Assembly @ 45o F above Ambient Temperature. | <i>D. Anderson</i> |
| Operate Window Defrosters-Check condition of Defroster @ 45o F above Ambient Temperature. | <i>D. Anderson</i> |
| If equipped, test the Auto Dump valve for proper operation. | |
| Test Manual Water Dump Valves, Proper Handle, Location, Orifice is Open. | <i>D. Anderson</i> |
| Close Winter/ Summer doors if equipped. | <i>D. Anderson</i> |
| Check Traction Motor cover gaskets, install as needed. | <i>D. Anderson</i> |
| Check condition of Cab Door Hinges (Lubricate all Hinges) | <i>D. Anderson</i> |
| Check condition of Cab Door Locks (Lubricate all Locks) | <i>D. Anderson</i> |
| Inspect Cab Windows Slider Rail, Adjust Top Rail as needed, Lubricate with Silicone Grease. | <i>D. Anderson</i> |
| Renew all Wiper Blades. | <i>D. Anderson</i> |
| 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. | <i>D. Anderson</i> |
| 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. | <i>D. Anderson</i> |

Service Operations

THROTTLE 8 OUTBOUND LOAD TESTS

UNIT 7553

DATE 12-6-10

| | | | | |
|----------------|------|----------------------------|-------------------|-------------|
| Eng RPM (900) | EMD | _____ | Lube Oil Pres | _____ |
| Eng RPM (1050) | GE | _____ | Water Temp | <u>180°</u> |
| Horsepower | | <u>3680</u> | Overspeed Setting | _____ |
| Volts (5.3) | B-23 | _____ | RACK SETTING | _____ |
| Volts (7) | C-30 | _____ | | |
| Volts (720) | B-39 | 3080 <u>695</u> | | |

THROTTLE #1 STALL TEST

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

Montreal, Maine, & Atlantic Railway
Mechanical Department

Unit Number. 8553

Date 12-3-10

1. Inspect traction motor wicks and report action

- | | | | |
|-----|---------------|-----|-------------|
| #1. | <u>OK</u> | ... | <u>Amer</u> |
| #2. | <u>OK</u> | ... | <u>Amer</u> |
| #3. | <u>OK</u> | ... | <u>Amer</u> |
| #4. | <u>OK</u> | ... | <u>Amer</u> |
| #5. | OK | ... | |
| #6. | | ... | |

| LOCOMOTIVE | | | | | | | | | | DATE | | | | |
|----------------|---------------|------------------|---------------|----------------|-----------|----|-------------|---------------|------------------|---------------|----------------|-----------|----|------------------------------|
| 8553 | | | | | | | | | | 12-3-10 | | | | |
| 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 | 0.0 | 2.3/16 | | | | L#1 | | | | | | | |
| L#2 | 0.19 | 0.0 | 1.14 | | | | L#2 | | | | | | | |
| L#3 | 0.21 | 0.0 | 1.12 | | | | L#3 | | | | | | | |
| L#4 | 0.22 | 0.0 | 2.06 | | | | L#4 | | | | | | | |
| L#5 | | | | | | | L#5 | | | | | | | |
| L#6 | | | | | | | L#6 | | | | | | | |
| R#1 | 0.18 | 0.0 | 2.02 | | | | R#1 | | | | | | | |
| R#2 | 0.19 | 0.0 | 1.13 | | | | R#2 | | | | | | | |
| R#3 | 3.22 | 0.0 | 1.11 | | | | R#3 | | | | | | | |
| R#4 | 0.21 | 0.0 | 2.06 | | | | 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

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 5/32"
 8-on-22--1 1/2"

FLANGE HEIGHT MEASUREMENT

WEAR LIMITS - ROAD & SWITCH LOCOMOTIVES - MIN 92 DAY REQ

WEAR LIMITS - PASSENGER LOCOMOTIVES - 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" |

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 1/4" | 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--5/64"
 8-on-0--15/64"

FLANGE THICKNESS MEASUREMENT

LOCOMOTIVE RAIL CLEARANCE

| COUPLER HEIGHT | FRONT | PILOT HEIGHT | FRONT | 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" | 4 3/4" | FRA MIN 2 1/2" |
| MMA | MAX 34 1/2" MIN 32 1/2" | MMA | MAX 6" MIN 3 1/2" | 5 1/2" | 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" 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

DESIGNER: CHECK THE CLEARANCE IN WHEEL DIAMETER FROM THE TOP OF THE WITNESS GROOVE TO THE RAIL HEAD FOR THE 40" AND 42" WHEELS.

REMEMBER THIS RULE

IF A WHEEL DIAMETER DIFFERENCE IS SHOWN IN THESE COLUMNS, THE WHEELS SHOULD BE SHIMMED TO THE SAME DIAMETER. IF THE WHEELS ARE SHIMMED TO THE SAME DIAMETER, THE WITNESS GROOVE SHOULD BE REWORKED TO THE CORRECT DEPTH. NOTE: NORMAL WHEEL DIAMETER VARIATION IS 1/4" TO 1/2".

EMPLOYEES SIGNATURE

Ames

SUPERVISORS SIGNATURE