



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 12-13-11 and take no exception to applicable laws, rules and or MMA standards, policies and standards.



Service Operations

THROTTLE 8 INBOUND LOAD TESTS

UNIT _____

DATE _____

| | | | | |
|----------------|------|----------------|-------------------|---------------|
| Eng RPM (900) | EMD | _____ | Lube Oil Pres | <u>89 PSI</u> |
| Eng RPM (1050) | GE | _____ | Water Temp | <u>180</u> |
| Horsepower | | <u>2100 hp</u> | Overspeed Setting | _____ |
| Volts (5.3) | B-23 | <u>4.93</u> | 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) | <u>72.33</u> | |

TL 24T

| | | |
|------------|-------|-------|
| Throttle 1 | (1V) | _____ |
| Throttle 2 | | _____ |
| Throttle 3 | | _____ |
| Throttle 4 | | _____ |
| Throttle 5 | | _____ |
| Throttle 6 | | _____ |
| Throttle 7 | | _____ |
| Throttle 8 | (72V) | _____ |

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

| <i>In-Bound Loadtest Electrical/Mechanical</i> | | 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 | | |
| COMPLETE THE OUTBOUND LOAD TEST SHEETS | | |
| GROUND RELAY-(TEST THREE TIMES TO VERY LOCK-OUT)(DYNAMIC & POWER) | | |
| IF EQUIPPED, VERIFY THE OPERATION OF THE LDVR CAMERA | | |
| MECHANICAL | | |
| 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 | NOTE: 120- | |
| 130 main reservoir is 64 + or - 3, | 130-140 main | |
| 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) | <i>T. Boudie</i> |
| C. EQUALIZING RESERVOIR | (90 PSI) | <i>T. Boudie</i> |
| D. BRAKE CYLINDER | (72 - 74 PSI) | <i>T. Boudie</i> |
| 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 | | <i>T. Boudie</i> |
| B. SANDERS (FORWARD, REVERSE, EMERGENCY) | | |
| C. RADIATOR SHUTTERS | | |

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

Revision Date: 06/26/2010
Issued By: Tim Scalia

| ELECTRICAL IN HOUSE | | WORKED BY: |
|---|---------------------|------------|
| SERVICE THE BATTERIES | #1 33.32v #2 33.13v | J. Powell |
| VERIFY EVENT RECORDER IS WORKING | | |
| CHECK & RECORD THE DATE ON HEAD END DEVICE | 9-15-11 | J. Hart |
| CLOSELY INSPECT THE HEAD END DEVICE CONNECTOR. ENSURE IT IS TIGHTLY CONNECTED AND NOT CROSS THREADED | | J. Hart |
| CHECK THE FOLLOWING EQUIPMENT AND THEIR RELATED GUARDS AND LENSES FOR PROPER OPERATION: | | |
| 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 | | J. Powell |
| TRACTION MOTORS AND UNDERFRAME | | |
| CHECK THE TRACTION MOTOR LEADS, VERIFY NO LEADS ARE RUBBING ON THE FRAME | | J. Hart |
| INSPECT TRACTION MOTOR COVERS AND ENSURE BOLTS ARE IN PLACE AND TIGHT | | J. Hart |
| CHECK M.U. RECEPTACLE PINS AND LIDS. MAKE NECESSARY REPAIRS | | J. Hart |
| MAKE SURE M.U. CABLES DO NOT FOUL COUPLERS | | |

Comp filters Roy
 Baggy Filters Roy / JOSH
 Fuel filter Josh
 Oil filters Roy

oil SAMPLE - D. Black
 Grease driveshaft - J. Powell / D. Black
 Angledrive oil/Grease Fan - No grease fitting to fan - J. Powell

B-23, B-39, 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.

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

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

2 TRACTION MOTOR: OIL USED

3 TRACTION MOTOR: OIL USED

4 TRACTION MOTOR: OIL USED

5 TRACTION MOTOR: OIL USED

6 TRACTION MOTOR: OIL USED

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 CAB SEATS FOR PROPER OPERATION INSURING ALL BOLTS ARE IN PLACE AND TIGHT.

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:

INSPECT/REPAIR AS NEEDED TOILET DRAIN VALVE & FLOOR SEALS

INSPECT CAB SEATS. REPAIR AND LUBRICATE AS REQUIRED

INSPECT AND REPAIR AS REQUIRED:

A. CAB / CARBODY/DOORS/HINGES/WINDOWS/LATCH SEALS/WEATHER STRIPPING AND SEALS/MIRRORS. ALSO LUBRICATE/CHANGE AS NEEDED

A. CLEAN THE CAB, WINDOWS, AND EQUIPMENT

COMPLETE WINTERIZATION SHEET (SEPTEMBER-FEBRUARY)

WASH LOCOMOTIVE ENGINE/ENGINE ROOM/AND AIR COMPRESSOR ROOM

WASH THE LOCOMOTIVE

X

DB
DB

DB
DB

DB

DB
DB
Lunken
DB

DB Black 3000 each DB

DB

DB
DB
DB

DB
DB
DB
DB
DB

DB

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

| <i>Out-Bound Loadtest Electrical/Mechanical</i> | | 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 | | <i>Albrook</i> |
| COMPLETE THE OUTBOUND LOAD TEST SHEETS | | |
| GROUND RELAY-(TEST THREE TIMES TO VERY LOCK-OUT)(DYNAMIC & POWER) | | |
| IF EQUIPPED, VERIFY THE OPERATION OF THE LDVR CAMERA | | |
| MECHANICAL | | |
| PROPER LUBRICATION? FUEL LEAKS? CAM ROLLER ROTATION? ETC. | | |
| INSPECT FUEL SYSTEM HOSES AND PIPES FOR LEAKS | | <i>DB</i> |
| INSPECT COOLING SYSTEM: | | |
| A: CHECK HOSES AND PIPES FOR LEAKS | | <i>DB</i> |
| CHECK OPERATION OF ENGINE PROTECTION DEVICES: | | <i>DB</i> |
| A. CRANKCASE PRESSURE | | <i>DB</i> |
| VISUALLY INSPECT AIR COMPRESSOR FOR WATER, AIR OR OIL LEAKS | | <i>DB</i> |
| PERFORM MANUAL AIR BRAKE TEST | | <i>DB</i> |
| Verify Flow Gauge | NOTE: 120- | |
| 130 main reservoir is 64 + or - 3, | 130-140 main | |
| reservoir is 60 + o | | |
| PERFORM PENALTY BRAKE TEST | | |
| CHECK FOR CORRECT AIR PRESSURE SETTINGS: | | <i>DB</i> |
| A. MAIN RESERVOIR (130 - 140 PSI) | | <i>DB</i> |
| B. BRAKE PIPE (90 PSI) | | <i>DB</i> |
| C. EQUALIZING RESERVOIR (90 PSI) | | <i>DB</i> |
| D. BRAKE CYLINDER (72 - 74 PSI) | | <i>DB</i> |
| E. COMPRESSOR CONTROL (130 - 140 PSI +/-5 PSI) | | <i>DB</i> |
| CHECK FLUID LEVELS BEFORE LOADING: | | <i>DB</i> |
| A: ENGINE OIL | | <i>DB</i> |
| B: COOLING WATER | | <i>DB</i> |
| C: AIR COMPRESSOR OIL | | <i>DB</i> |
| TEST OPERATION OF THE FOLLOWING DEVICES: | | <i>DB</i> |
| A. BELL | | <i>DB</i> |
| B. SANDERS (FORWARD, REVERSE, EMERGENCY) | | <i>DB</i> |
| C. RADIATOR SHUTTERS | | <i>DB</i> |



Service Operations

UNIT _____

DATE _____

THROTTLE 8 OUTBOUND 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) | _____ | |

TL 24T

| | | |
|------------|-------|-------|
| Throttle 1 | (1V) | _____ |
| Throttle 2 | | _____ |
| Throttle 3 | | _____ |
| Throttle 4 | | _____ |
| Throttle 5 | | _____ |
| Throttle 6 | | _____ |
| Throttle 7 | | _____ |
| Throttle 8 | (72V) | _____ |

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. | |

TPG

J. Anderson

TPG
TPG

TPG-DB

all tight DB

— right side window small crack Bottom
— reTight right side windowed Jam.
DB

Unit: _____

Date: _____

DEFECTS FOUND DURING INSPECTION

| | | | |
|--------|----------------------|---------------|-----------------|
| DEFECT | L-1 wick Bad | INSPECTED BY: | <i>D. Black</i> |
| REPAIR | changed + new gasket | CORRECTED BY: | <i>D. Black</i> |

| | | | |
|--------|--------------------|---------------|--------|
| DEFECT | MR check valve Bad | INSPECTED BY: | TBG |
| REPAIR | changed | CORRECTED BY: | RB-TBG |

| | | | |
|--------|---------------------------|---------------|-------------|
| DEFECT | tight front sander plused | INSPECTED BY: | <i>D.B.</i> |
| REPAIR | un plused | CORRECTED BY: | <i>D.B.</i> |

| | | | |
|--------|--|---------------|-----|
| DEFECT | Turbo reduction chamber three Broken belts | INSPECTED BY: | TGP |
| REPAIR | | CORRECTED BY: | |

| | | | |
|--------|---|---------------|------------------|
| DEFECT | AIR FLOW METER BLOCK DEFECTIVE - COULDN'T Adjust Flow | INSPECTED BY: | <i>J. Brooke</i> |
| REPAIR | REPLACED BLOCK + piping | CORRECTED BY: | <i>J. Brooke</i> |

AIR FLOW METER NEEDS TO BE CHECKED AGAIN!
MIGHT NEED TO BE RE-CALIBRATED

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: _____ _____ |

Description of Work Performed

Locomotive ID

Time Started

Time Finished

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

LOCOMOTIVE **2000**

DATE **12-13-11**

| | 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 | 0-21 | 0-0 | 24 | | | | L#1 | | | | | | | FLANGE THICKNESS MEASUREMENT 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 | 29 | | | | L#2 | | | | | | | |
| L#3 | 0-20 | 0-0 | 33 | | | | L#3 | | | | | | | |
| L#4 | 0-21 | 0-0 | 24 | | | | L#4 | | | | | | | |
| L#5 | | | | | | | L#5 | | | | | | | |
| L#6 | | | | | | | L#6 | | | | | | | |
| | | | | | | | | | | | | | | OLD GAUGE |
| | | | | | | | | | | | | | | 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" 2-on 6-1-13/32" 4-on 6-1-7/16" 6-on 6-1-31/64" |
| R#1 | 0-20 | 0-0 | 24 | | | | R#1 | | | | | | | 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" |
| R#2 | 0-19 | 0-0 | 29 | | | | R#2 | | | | | | | |
| R#3 | 0-20 | 0-0 | 33 | | | | R#3 | | | | | | | |
| R#4 | 0-20 | 0-0 | 24 | | | | 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" |

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 1/4" | 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" |

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" | 33 | MAX 6" MIN 3" | 5 3/4" | FRA MIN 2 1/4" |
| MMA | MAX 34 1/2" MIN 32 1/2" | 33 | MAX 6" MIN 3 1/2" | 5 3/4" | 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)

3/4" 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 END LOCOMOTIVES USE ONLY ONE 1/2" SHIM END 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

D. Black

SUPERVISORS SIGNATURE

BRUSH RECORD

UNIT # _____

DATE _____

MAINS ALTERNATOR

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

SIGNATURE J. Hart

NO. 1 TRACTION MOTOR

| POS | 1 | 2 | 3 | B | W |
|-----|----|---|---|---|---|
| 3 | | | | | |
| 6 | | | | | |
| 9 | OK | | | | |
| 12 | | | | | |

SIGNATURE J. Hart

NO. 2 TRACTION MOTOR

| POS | 1 | 2 | 3 | B | W |
|-----|----|---|---|---|---|
| 3 | | | | | |
| 6 | | | | | |
| 9 | OK | | | | |
| 12 | | | | | |

SIGNATURE J. Hart

NO. 3 TRACTION MOTOR

| POS | 1 | 2 | 3 | B | W |
|-----|----|---|---|---|---|
| 3 | | | | | |
| 6 | | | | | |
| 9 | OK | | | | |
| 12 | | | | | |

SIGNATURE J. Hart

NO. 4 TRACTION MOTOR

| POS | 1 | 2 | 3 | B | W |
|-----|----|---|---|---|---|
| 3 | | | | | |
| 6 | | | | | |
| 9 | OK | | | | |
| 12 | | | | | |

SIGNATURE J. Hart

AUXILIARY GENERATOR

| POS | 1 | 2 | 3 | B | W |
|-----|----|---|---|---|---|
| 2 | | | | | |
| 4 | | | | | |
| 8 | OK | | | | |
| 10 | | | | | |

SIGNATURE J. Hart

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 | | | | | |
| 8 | OK | | | | |
| 10 | | | | | |

SIGNATURE J. Hart

DYNAMIC BRAKING BLOWER MOTORS

FRONT

| POS | 1 | B | W |
|-----|---|---|---|
| 2 | | | |
| 4 | | | |
| 8 | | | |
| 10 | | | |

SIGNATURE _____

REAR

| POS | 1 | B | W |
|-----|---|---|---|
| 2 | | | |
| 4 | | | |
| 8 | | | |
| 10 | | | |

SIGNATURE _____

FUEL PUMP MOTOR

| POS | 1 | B | W |
|-----|---|---|---|
| 3 | | | |
| 9 | | | |

SIGNATURE _____

Montreal, Maine, & Atlantic Railway
Locomotive

Unit 2000

Date 12-14-11

3 Month Federal Air Work

Signature

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

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

9 test AND CALIBRATE Air Flow Meter
HAD TO REPLACE AIR FLOW TEST BLOCK - NEEDS TO BE
Recalibrated

MR check valve leaking by - Replaced - D. Black