



M.O.-6

Locomotive Release from Shop Form  
To be completed on every engine released from the Shop

I have reviewed the work packet for locomotive 5026 on this date 10-12-10 and take no exception to applicable laws, rules and or MMA standards, policies and standards.

## B-23, B-39, C-30, GP-7 MO6 INSPECTION



### In-Bound Loadtest Electrical/Mechanical

WORKED BY:

<b>ELECTRICAL</b>	
VERIFY THE OPERATION OF THE GROUND RELAY	J. Harris
CHECK FOR LOW VOLTAGE GROUNDS (7 watt bulb)	J. Harris
WHILE IN THROTTLE 3 LOAD TEST, CHECK FOR AC GROUNDS	J. Harris
CHECK OPERATION OF:	
A. HEATING	J. Harris
COMPLETE THE IN-BOUND LOAD TEST SHEETS	J. Harris
GROUND RELAY-(TEST THREE TIMES TO VERY LOCK-OUT)(DYNAMIC & POWER)	J. Harris
CHECK THE FOLLOWING FOR PROPER OPERATION:	
A. CREW ALERT	DRS
B. RADIO AND ANTENNA	DRS
C. AXLE ALT. SPEEDO	DRS
D. MU ENGINE SHUTDOWN	DRS
E. FUEL CUT-OFF	DRS
F. TEST WARNING DEVICES	J. Harris
<b>MECHANICAL</b>	
CLEAN AND SERVICE TOILET AND RESTROOM	DRS J. Black
DRAIN RETENTION TANK	N/A
PROPER LUBRICATION? FUEL LEAKS? CAM ROLLER ROTATION? ETC.	DRS
INSPECT FUEL SYSTEM HOSES AND PIPES FOR LEAKS	DRS
INSPECT COOLING SYSTEM:	
A: CHECK HOSES AND PIPES FOR LEAKS	DRS
CHECK OPERATION OF ENGINE PROTECTION DEVICES:	
A. CRANKCASE PRESSURE	DRS
VISUALLY INSPECT AIR COMPRESSOR FOR WATER, AIR OR OIL LEAKS	DRS
PERFORM MANUAL AIR BRAKE TEST	DRS
Verify Flow Gauge 130 main reservoir is 64 + or - 3, reservoir is 60 + 0	NOTE: 120-130-140 main DRS DRS
PERFORM PENALTY BRAKE TEST	
CHECK FOR CORRECT AIR PRESSURE SETTINGS:	
A. MAIN RESERVOIR (130 - 140 PSI)	DRS
B. BRAKE PIPE (90 PSI)	DRS
C. EQUALIZING RESERVOIR (90 PSI)	DRS
D. BRAKE CYLINDER (72 - 74 PSI)	DRS
E. COMPRESSOR CONTROL (130 - 140 PSI +/- 5 PSI)	DRS
CHECK FLUID LEVELS BEFORE LOADING:	
A: ENGINE OIL	DRS
B: COOLING WATER	DRS
C: AIR COMPRESSOR OIL	DRS
TEST OPERATION OF THE FOLLOWING DEVICES:	
A. BELL	DRS
B. SANDERS (FORWARD, REVERSE, EMERGENCY)	DRS
C. RADIATOR SHUTTERS	

MONITOR

**B-23, B-39, -30, GP-7 MO6 INSPECTION**

P: VERIFY ALL ARMREST FASTENERS ARE SECURE. REPLACE ANY MISSING OR STRIPPED OUT FASTENERS.	DRS
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.	DRS
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.	DRS
<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	—
INSPECT AND REPAIR AS REQUIRED:	
A. CAB / CARBODY/DOORS/HINGES/WINDOWS/LATCH SEALS/WEATHER STRIPPING AND SEALS/MIRRORS. ALSO LUBRICATE AS NEEDED	DRS
A. CLEAN THE CAB, WINDOWS, AND EQUIPMENT	
COMPLETE WINTERIZATION SHEET (AUGUST - APRIL)	DRS
WASH LOCOMOTIVE ENGINE/ENGINE ROOM/AND AIR COMPRESSOR ROOM	
WASH THE LOCOMOTIVE	

## B-23, B-39, C-30, GP-7 MO6 INSPECTION



### Out Bound Loadtest Electrical/Mechanical

WORKED BY:

<b>ELECTRICAL</b>	
VERIFY THE OPERATION OF THE GROUND RELAY	<u>P. Alfano</u>
CHECK FOR LOW VOLTAGE GROUNDS (7 watt bulb)	<u>P. Alfano</u>
WHILE IN THROTTLE 3 LOAD TEST, CHECK FOR AC GROUNDS	
CHECK OPERATION OF:	
A. HEATING	<u>P. Alfano</u>
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	DRS
B. RADIO AND ANTENNA	DRS No Radio
C. AXLE ALT. SPEEDO	DRS
D. MU ENGINE SHUTDOWN	DRS
E. FUEL CUT-OFF	<u>P. Alfano</u>
F. TEST WARNING DEVICES	<u>P. Alfano</u>
<b>MECHANICAL</b>	
CLEAN AND SERVICE TOILET AND RESTROOM	Black 1 Das
DRAIN RETENTION TANK	None Here
PROPER LUBRICATION? FUEL LEAKS? CAM ROLLER ROTATION? ETC.	DRS See Defect
INSPECT FUEL SYSTEM HOSES AND PIPES FOR LEAKS	DRS
INSPECT COOLING SYSTEM:	DRS
A: CHECK HOSES AND PIPES FOR LEAKS	DRS
CHECK OPERATION OF ENGINE PROTECTION DEVICES:	DRS
A. CRANKCASE PRESSURE	DRS
VISUALLY INSPECT AIR COMPRESSOR FOR WATER, AIR OR OIL LEAKS	DRS
PERFORM MANUAL AIR BRAKE TEST	DRS
Verify Flow Gauge	NOTE: 120-130-140 main
130 main reservoir is 64 + or - 3, reservoir is 60 + 0	<u>P. Alfano</u>
PERFORM PENALTY BRAKE TEST	DRS
CHECK FOR CORRECT AIR PRESSURE SETTINGS:	
A. MAIN RESERVOIR (130 - 140 PSI)	DRS
B. BRAKE PIPE (90 PSI)	DRS
C. EQUALIZING RESERVOIR (90 PSI)	DRS
D. BRAKE CYLINDER (72 - 74 PSI)	DRS
E. COMPRESSOR CONTROL (130 - 140 PSI +/- 5 PSI)	DRS
CHECK FLUID LEVELS BEFORE LOADING:	
A: ENGINE OIL	DRS
B: COOLING WATER	DRS
C: AIR COMPRESSOR OIL	DRS
TEST OPERATION OF THE FOLLOWING DEVICES:	
A. BELL	DRS
B. SANDERS (FORWARD, REVERSE, EMERGENCY)	
C. RADIATOR SHUTTERS	



# B-23, B-39 C-30, GP-7 MO6 INSPECTION

## ELECTRICAL IN HOUSE

WORKED BY:

COMPLETE THE BATTERY MAINTENANCE SHEET PER JSP-010  
 CHECK DIODES AND FUSES IN THE MAIN GENERATOR. REPLACE AS NECESSARY  
 INSPECT ALL WIRING ON THE MAIN GENERATOR TERMINAL BOARD. REPAIR ANY LUGS THAT ARE OVERHEATED.  
 CHECK AND CHANGE "IF NEEDED" THE BRUSHES ON THE FOLLOWING EQUIPMENT:  
 GRID BLOWER MOTORS  
 SOAK BACK MOTORS  
 AUXILLARY GENERATOR  
 SLIP RING BRUSHES, EXCITER MOTOR  
 CHANGE FUEL PUMP MOTOR BRUSHES  
 INSPECT CAB HEATERS AND CHANGE MOTOR BRUSHES AS NECESSARY

*P. C. Caper*  
*P. C. Caper*  
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*P. C. Caper*  
*P. C. Caper*  
*P. C. Caper*

### CAB ELECTRICAL

DOWNLOAD EVENT RECORDER  
 CHECK & RECORD THE DATE ON HEAD END DEVICE *Not Equipped*  
 CHECK AND CHANGE "IF NEEDED" THE BRUSHES ON THE FOLLOWING EQUIPMENT:  
 CHECK GENERATOR AND ELECTRIC CABINET COVERS TO ENSURE THEY HAVE LEGIBLE "DANGER" STICKERS  
 CHECK CAB STICKERS TO ENSURE THAT THEY ARE LEGIBLE (DANGER 600 VOLTS) (FRA 223 GLAZING) ETC.  
 ENSURE DYNAMIC BRAKE HATCH DOORS ARE SECURED PROPERLY AND HAVE LEGIBLE "DANGER" STICKERS.  
 CHECK THE FOLLOWING EQUIPMENT AND THEIR RELATED GUARDS AND LENSES FOR PROPER OPERATION:

*P. C. Caper*  
*P. C. Caper*  
*P. C. Caper*  
 \_\_\_\_\_  
*P. C. Caper*  
*P. C. Caper*

AUXILLARY GENERATOR  
 SLIP RING BRUSHES, EXCITER MOTOR  
 ALT. DIODE BANK

*P. C. Caper*  
*P. C. Caper*

INSPECT BOTH STARTER SERIAL NUMBERS. IF ANY STARTER IS WITHIN 3 MONTHS OF BEING 3 YEARS OLD, PLEASE CHANGE THE STARTER. TOP STARTER SN \_\_\_\_\_ BOTTOM STARTER SN \_\_\_\_\_ DID EITHER STARTER GET REPLACED? YES NO

NOTE: MMA 758 ONLY  
 \_\_\_\_\_

APPLY A THIN COAT OF THE SAE NO. 10 OIL TO THE FOLLOWING STARTER COMPONENTS

- A. ARMATURE SHAFT SPLINES
- B. CLUTCH ASSEMBLY SPIRAL SPLINES AND MATING GEAR SPLINES

FRONT AND REAR HEADLIGHTS, DITCH LIGHTS, CAB LIGHTS, GAUGE LIGHTS, NUMBER PLATES, PLATFORM LIGHTS, ENGINE ROOM LIGHTS, INDICATOR LIGHTS  
 CHECK CONTROLLER FOR PROPER OPERATION OF REVERSER AND THROTTLE HANDLE LOCKING DEVICES  
 CHECK EMERGENCY FUEL SHUT-OFF FROM ALL LOCATIONS

*P. C. Caper*  
*P. C. Caper*  
*P. C. Caper*

### TRACTION MOTORS AND UNDERFRAME

INSPECT AXLE GENERATOR AND ENSURE ALL COVER BOLTS ARE IN PLACE AND TIGHT  
 CLEAN AND CHECK THE TRACTION MOTOR LEADS, CLAMPS, VERIFY NO LEADS ARE RUBBING ON THE FRAME

*P. C. Caper*  
*P. C. Caper*  
*P. C. Caper*

CHANGE ANY TRACTION MOTOR BRUSH WITH LESS THAN 50% LIFE LEFT  
 INSPECT TRACTION MOTOR COVERS AND ENSURE BOLTS ARE IN PLACE AND TIGHT  
 ENSURE TRACTION GROUND WIRES ARE IN PLACE AND PROPERLY SECURED

*P. C. Caper*  
*P. C. Caper*

CLEAN FACE PLATE ON RADAR TRANSCEIVER  
 CHECK M.U. RECEPTACLE AND LIDS. MAKE NECESSARY REPAIRS

*P. C. Caper*  
*P. C. Caper*

MAKE SURE M.U. CABLES DO NOT FOUL COUPLERS



B-23, B-39, 30, GP-7 MO6 INSPECTION

In-House Or Dead Mechanical

WORKED BY

SECTION 1 (ANNUAL ITEMS)

WITH ENGINE WARM, PRESSURE TEST COOLING SYSTEM AT 20 PSI AND INSPECT THE ENTIRE COOLING SYSTEM FOR LEAKS

PERFORM CRANKCASE INSPECTION WHILE BARRING THE ENGINE OVER, PAY CAREFUL ATTENTION FOR BROKEN RINGS AND/OR "JUMPING" RODS INDICATING THRUST WASHER WEAR

INSPECT PISTON COOLING TUBES (END ONLY)

INSPECT WATER MANIFOLD SADDLE STRAPS BETWEEN 4&5 AND 12&13 PA'S FOR PROPER SECUREMENT (EMD ONLY)

INSPECT AIR BOX; CLEAN AS NECESSARY

INSPECT TOP DECK COVERS, SEALS AND LATCHES. REPLACE AS NECESSARY

INSPECT ALL EXHAUST MANIFOLDS, EXPANSION JOINTS AND HEAT SHIELDS FOR DEFECTS AND SECUREMENT.

REMOVE AND CLEAN EDUCTOR TUBE AND STACK OUTLET AND REPLACE GASKETS

REMOVE AND CLEAN ENGINE OIL SEPARATOR. REPLACE GASKET (EMD ONLY)

VERIFY SOAKBACK PUMP OPERATION AT #16 OIL PAN COVER (EMD ONLY)

PULL MICHIANA TANK AND SUCTION BOX DRAIN (IF CRANKCASE AND AIRBOX PASS INSPECTION) (EMD ONLY)

INSPECT AFTERCOOLER DUCTS FOR LOOSE/MISSING BOLTS (60 FT LBS)

LUBRICATE RADIATOR SHUTTER LINKAGES AND CYLINDERS

REPLACE THE BELL VALVE

INSPECT ROCKER ARMS, ROCKER ARM BUSHINGS AND CAM FOLLOWERS

SECTION 2

CHANGE / INSPECT / CLEAN:

CHANGE HVAC FILTERS IF APPLICABLE

INTAKE FILTER(ONLY AFTER HVAC IS WASHED)

REPLACE "BAGGIE" AIR FILTERS AND VISUALLY INSPECT TURBO IMPELLER AND EXAMINE CHAMBER FOR DEBRIS AND CRACKS

PRIMARY, SECONDARY FUEL FILTERS & O RING SEALS

FUEL STRAINERS & O RING SEALS

FUEL BY-PASS GAUGE (INSPECT ONLY)

CHANGE SOAKBACK FILTER AND RENEW O RING SEALS

CHANGE TURBO FILTER AND RENEW O RING SEALS

REMOVE PRIMARY LUBE OIL FILTER BYPASS VALVE AND CLEAN

CHANGE ENGINE LUBE OIL FILTERS

RENEW MICHIANA O RING SEAL AND CLEAN MICHIANA FILTER HOUSING

CLEAN LUBE OIL STRAINERS AND STRAINER BOX, REFRESH OIL

Grease Rack  
equip blower  
Fan Drive

**B-23, B-39, 30, GP-7 MO6 INSPECTION**

<b>SECTION 3</b>		
COMPLETE FRA INSPECTION	DAS	
INSPECT ALL TRAINLINE BRAKE VALVES	DAS	
COMPLETE WHEEL REPORT SHEET	DAS	
CHECK FOR BROKEN COIL SPRINGS & LATERAL PADS	DAS	
INSPECT VERTICAL AND YAW DAMPERS FOR LEAKS AND SIGNS OF BUSHING DETERIORATION.	DAS	
CHECK AND LUBRICATE COUPLER CARRIER	DAS	
INSPECT AND REPLACE BRAKE SHOES AS NECESSARY (40012998)	DAS	
CHECK BRAKE CYLINDER TRAVEL	DAS	
MAKE PIT INSPECTION OF LOCOMOTIVE UNDERCARRIAGE	DAS	
INSPECT WICK BOLT SECUREMENT AND REPAIR IF NECESSARY	DAS	
CHECK SUSPENSION BEARING OIL LEVEL	DAS	
CHECK JOURNAL BOX OIL LEVEL	DAS	
CHECK OIL FILLED GEAR CASES AND FILL	DAS	
CHECK GEAR CASES AND INSPECT BULL GEAR (ADD 3lbs. OF GEARCASE GREASE	DAS	
SUSPENSION BEARING BOXES	DAS	
TRACTION MOTOR AIR DUCTS	DAS	
NOSEPADS, BINDERS, PEDESTAL JAWS AND LINERS, ROLLER BEARING BOXES AND BOLTS	DAS	
INITIAL BY APPROPRIATE TYPE (SWITCHER: 6 In ROAD: 8 In <i>X</i> )	DAS	
ELLIPTIC SPRINGS, HANGERS AND SAFETY STRAPS, BOLSTER WEAR PLATES, BOLSTER SUPPORT PADS AND TIE PADS	DAS	
INSPECT ALL BRAKE HANGERS, HEADS, GUIDES AND STRAPS INSURING BRAKE SHOES ARE IN LINE WITH WHEELS	DAS	
INSPECT SIDE BEARINGS AND REPAIR AS NEEDED	DAS	
CHECK KNUCKLE CLEARANCE AND KNUCKLE THROWER, MAKE REPAIRS AS NEEDED AND APPLY SPARE KNUCKLES (E AND F TYPE)	DAS	
INSPECT, TEST, LUBRICATE HAND BRAKE, NOTE SERVICE DATE ON BLUE CARD	DAS	
<b>SECTION 4</b>		
IN ACCORDANCE WITH FRA 229.23. VERIFY AIR GAUGES (+/- 3PSI) CALIBRATE AT +/- 1PSI, REQUIRES 130 PSI MR	<i>D. L. ...</i>	
CHECK ALL FLUID LEVELS, ENGINE OIL, COOLING WATER, AIR COMPRESSOR OIL	DAS	
DRAIN RETENTION TANK	N/A	
TOILET MAINTENANCE:	Yes	
A. INSPECT/REPAIR AS NEEDED TOILET DRAIN VALVE & FLOOR SEALS	DAS	
<b>Cab Seat Inspection:</b>		
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.	DAS	
B. LUBRICATE PIVOT POINTS	DAS	
C. INSPECT ROTATION ADJUSTMENT LOCKING PIN. VERIFY THAT THE LOCKING PIN OPERATES (PULL OUT TO RELEASE LOCK) AND THAT THE SEAT ROTATES WHEN UNLOCKED.	DAS	
D. LUBRICATE THE PIN MECHANISM.	DAS	
E. SEAT PAN COMPONENTS: INSPECT THE FORE-AFT FINE ADJUSTMENT LEVER.	DAS	
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.		
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 KNOW. 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.		<i>(Arrow tip)</i>

CONFIDENTIAL

**B-23, B-39, 30, GP-7 MO6 INSPECTION**

P: VERIFY ALL ARMREST FASTENERS ARE SECURE. REPLACE ANY MISSING OR STRIPPED OUT FASTENERS.

*DOES*

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.

**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

INSPECT AND REPAIR AS REQUIRED:

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

A. CLEAN THE CAB, WINDOWS, AND EQUIPMENT

COMPLETE WINTERIZATION SHEET (AUGUST - APRIL)

WASH LOCOMOTIVE ENGINE/ENGINE ROOM/AND AIR COMPRESSOR ROOM

WASH THE LOCOMOTIVE



*P. Lopez*



REVISED: 8/18/2010



**MMA RAILWAY  
MECHANICAL DEPARTMENT  
MODIFICATIONS**

UNIT 5026

DATE 10.11.10

ELECTRICIAN / MACHINIST

SIGNATURES

1. DYNAMIC BRAKE HOLDING FEATURE
2. CHECK BATTERY CONNECTIONS AND RECOAT LUGS
3. SINGLE MAN BRAKE TEST

P. [Signature]  
DRS



B-23, B-39, C-30, GP-7 MO6 INSPECTION

LOCOMOTIVE INSPECTION REPORT AIR99			SIGNATURE
	RECORDED DATE	(STENCIL DATE)	
26 INDEPENDENT BRAKE VALVE			
26 C AUTOMATIC BRAKE VALVE			
HB5D RELAY AIR VALVE (NOTE IF NOT EQUIPPED)			
26 F CONTROL VALVE			
A-1 CHARGING VALVE			
P-2-A PENALTY BRAKE APPLICATION VALVE			
F-1 SELECTOR VALVE (NOTE IF NOT EQUIPPED)			
MU2A VALVE			
J-1 RELAY AIR VALVE			
J-1.6-16 RELAY AIR VALVE			
QUICK RELEASE PORTION			
#8 VENT ENGINEER'S SIDE (NOTE IF NOT EQUIPPED)			
#8 VENT FIREMAN'S SIDE (NOTE IF NOT EQUIPPED)			
MAIN RESERVOIR POP VALVE Check for proper setting			

The equipment above is to be changed out every 24 months. If the date dictates it needs changed, please change it.

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

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

### DEFECTS FOUND DURING INSPECTION

DEFECT	#3 R PA exhaust valves loose	INSPECTED BY:	DPS
REPAIR	tightened	CORRECTED BY:	DPS

DEFECT	Cab Heater - NO heat - intermittent fan	INSPECTED BY:	J. Hark
REPAIR	Reset Button	CORRECTED BY:	OLC

DEFECT	#1 R Brake cyl Safety Ring Off	INSPECTED BY:	DPS
REPAIR	Redrilled screw hole replaced bolt	CORRECTED BY:	DPS

DEFECT	#3 Loose GC half Bolt	INSPECTED BY:	DPS
REPAIR	Tightened loose bolt	CORRECTED BY:	DPS

DEFECT	RT Rear inner/outer Brake cyl sliders worn thin	INSPECTED BY:	DPS
REPAIR	c/o worn sliders w/new ones	CORRECTED BY:	DPS

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

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

### DEFECTS FOUND DURING INSPECTION

DEFECT	#1 L Wheel flange high	INSPECTED BY:	DRS
REPAIR	<del>#1 TM lead in contact with wheel</del> Cut wheel	CORRECTED BY:	PWC/BC

DEFECT	#1 TM lead in contact with wheel	INSPECTED BY:	PC
REPAIR	Moved lead + secured	CORRECTED BY:	PC

DEFECT	Cond Side Side window Ls cracked	INSPECTED BY:	DRS
REPAIR	Replaced with New used window	CORRECTED BY:	DRS

DEFECT	Both cab seat track keepers MISSING	INSPECTED BY:	DRS
REPAIR	Put in track keepers	CORRECTED BY:	BC

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

LOCOMOTIVE											DATE			
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	1 7/16"	1 7/16"	3 3/8"	42"		✓	L#1							0-on 0-1-17/64"
L#2	1 3/8"	1 1/4"	3 5/16"	42"		✓	L#2							1-on 0-1-15/64"
L#3	1 1/4"	1 3/4"	3 1/2"	42"		✓	L#3							2-on 0-1-7/32"
L#4	1 1/4"	1 3/4"	2 13/16"	42"		✓	L#4							3-on 0-1-5/32"
L#5	1 1/2"	1 3/4"	3 1/8"	42"		✓	L#5							4-on 0-1-7/64"
L#6	1 3/8"	1 3/4"	3 9/16"	42"		✓	L#6							5-on 0-1-3/64"
														6-on 0-1-1/32"
														7-on 0-63/64"
														8-on 0-15/16"
R#1	1 3/8"	1 3/4"	3 7/16"	42"		✓	R#1							0-on 0-1-1/16"
R#2	1 3/8"	1 3/4"	3 5/16"	42"		✓	R#2							0-on 1-1-1/16"
R#3	1 1/4"	1 3/4"	3 1/2"	42"		✓	R#3							0-on 2-1-1/8"
R#4	1 3/8"	1 3/4"	2 13/16"	42"		✓	R#4							0-on 3-1-3/16"
R#5	1 1/4"	1 3/4"	3 1/4"	42"		✓	R#5							0-on 4-1-1/4"
R#6	1 3/8"	1 3/4"	3 1/2"	42"		✓	R#6							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 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 1/2"	MMA 1/2"

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

1/4" IS THE MAXIMUM VARIATION ALLOWED, IN WHEEL DIAMETER, BETWEEN ANY 2 WHEELS IN THE SAME TRUCK WITHOUT SHIMS.  
 1/2" IS THE MAXIMUM VARIATION ALLOWED, IN WHEEL DIAMETER, BETWEEN ANY 2 WHEELS IN THE SAME TRUCK WITH SHIMS APPLIED.  
 1 1/4" 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 1/2" OR MORE.

EMPLOYEES SIGNATURE

SUPERVISORS SIGNATURE

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

UNIT 5076

DATE \_\_\_\_\_

**Service Operations****THROTTLE # INBOUND LOAD TESTS**

Eng RPM (900)	EMD	<u>        </u>	Lube Oil Pres	<u>60</u>
Eng RPM (1050)	GE	<u>1050</u>	Water Temp	<u>190</u>
Horsepower		<u>2862</u>	Overspeed Setting	<u>1090</u>
Volts (5.3)	B-23	<u>        </u>	RACK SETTING	<u>19.5</u>
Volts (7)	C-30	<u>6.75</u>		
Volts (720)	B-39	<u>        </u>		

**THROTTLE #1 STALL TEST**

OP Mode	(PWR)	<u>F</u>	NOT APPLICABLE TO B-23 AND C-30
AMPS	(300)	<u>250</u>	
MGA	(1220)	<u>        </u>	
Charging Rate	(70v)	<u>73.7</u>	



UNIT 5026

DATE 10-12-10

### Service Operations

#### THROTTLE 8 OUTBOUND LOAD TESTS

Eng RPM (900)	EMD	<u>        </u>	Lube Oil Pres	<u>60</u>
Eng RPM (1050)	GE	<u>1050</u>	Water Temp	<u>180</u>
Horsepower		<u>2846</u>	Overspeed Setting	<u>1090</u>
Volts (5.3)	B-23	<u>        </u>	RACK SETTING	<u>19.5</u>
Volts (7)	C-30	<u>6173</u>		
Volts (720)	B-39	<u>        </u>		

#### THROTTLE #1 STALL TEST

OP Mode	(PWR)	<u>        </u>	NOT APPLICABLE TO B-23 AND C-30
AMPS	(300)	<u>        </u>	
MGA	(1220)	<u>        </u>	
Charging Rate	(70v)	<u>72.6</u>	