



Locomotive Release from Shop Form

To be completed on every engine released from the Shop

I have reviewed the work packet for locomotive 8525 on this date 8/9/10 and take no exception to applicable laws, rules and or MMA standards, policies and standards.



UNIT 8525
 DATE 8/9/10

Service Operations

THROTTLE 8 INBOUND LOAD TESTS

Eng RPM (900)	EMD	<u> </u>	Lube Oil Pres	<u>45 idle</u>
Eng RPM (1050)	GE	<u>1050</u>	Water Temp	<u>180</u>
Horsepower		<u>3805</u>	Overspeed Setting	<u> </u>
Volts (5.3)	B-23	<u> </u>	RACK SETTING	<u> </u>
Volts (7)	C-30	<u> </u>		
Volts (720)	B-39	<u> </u>		

700v
3850 Amps

THROTTLE #1 STALL TEST

OP Mode	(PWR)	<u> </u>	
AMPS	(300)	<u> </u>	
MGA	(1220)	<u> </u>	NOT APPLICABLE TO B-23 AND C-30
Charging Rate	(70v)	<u>73 ✓</u>	

TL 24T

Throttle 1	(1V)	<u> </u>
Throttle 2		<u> </u>
Throttle 3		<u> </u>
Throttle 4		<u> </u>
Throttle 5		<u> </u>
Throttle 6		<u> </u>
Throttle 7		<u> </u>
Throttle 8	(72V)	<u> </u>

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

<i>In-Bound Loadtest Electrical/Mechanical</i>	WORKED BY: <i>BW.</i>
ELECTRICAL	<i>OK</i>
VERIFY THE OPERATION OF THE GROUND RELAY	<i>OK</i>
CHECK FOR LOW VOLTAGE GROUNDS (7 watt bulb)	<i>OK</i>
WHILE IN THROTTLE 3 LOAD TEST, CHECK FOR AC GROUNDS	<i>OK</i>
CHECK OPERATION OF:	
A. HEATING	<i>OK</i>
COMPLETE THE OUTBOUND LOAD TEST SHEETS	<i>OK</i>
GROUND RELAY-(TEST THREE TIMES TO VERY LOCK-OUT)(DYNAMIC & POWER)	<i>OK</i>
IF EQUIPPED, VERIFY THE OPERATION OF THE LDVR CAMERA	<i>OK</i>
MECHANICAL	
PROPER LUBRICATION? FUEL LEAKS? CAM ROLLER ROTATION? ETC.	<i>MC</i>
INSPECT FUEL SYSTEM HOSES AND PIPES FOR LEAKS	<i>MC</i>
INSPECT COOLING SYSTEM:	<i>MC</i>
A: CHECK HOSES AND PIPES FOR LEAKS	<i>MC</i>
CHECK OPERATION OF ENGINE PROTECTION DEVICES:	<i>MC</i>
A. CRANKCASE PRESSURE	<i>MC</i>
VISUALLY INSPECT AIR COMPRESSOR FOR WATER, AIR OR OIL LEAKS	<i>MC</i>
PERFORM MANUAL AIR BRAKE TEST	<i>MC / DB</i>
Verify Flow Gauge 130 main reservoir is 64 + or - 3, reservoir is 60 + o	NOTE: 120- 130-140 main
PERFORM PENALTY BRAKE TEST	<i>MC</i>
CHECK FOR CORRECT AIR PRESSURE SETTINGS:	<i>MC</i>
A. MAIN RESERVOIR (130 - 140 PSI)	<i>MC</i>
B. BRAKE PIPE (90 PSI)	<i>MC</i>
C. EQUALIZING RESERVOIR (90 PSI)	<i>MC</i>
D. BRAKE CYLINDER (72 - 74 PSI)	<i>MC</i>
E. COMPRESSOR CONTROL (130 - 140 PSI +/- 5 PSI)	<i>MC</i>
CHECK FLUID LEVELS BEFORE LOADING:	
A: ENGINE OIL	<i>Added 2"</i>
B: COOLING WATER	<i>OK</i>
C: AIR COMPRESSOR OIL	<i>OK</i>
TEST OPERATION OF THE FOLLOWING DEVICES:	
A. BELL	<i>OK</i>
B. SANDERS (FORWARD, REVERSE, EMERGENCY)	<i>OK</i>
C. RADIATOR SHUTTERS	<i>None</i>

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

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

ELECTRICAL IN HOUSE	
SERVICE THE BATTERIES	WORKED BY: BW 85%
VERIFY EVENT RECORDER IS WORKING	OK
CHECK & RECORD THE DATE ON HEAD END DEVICE _____	
CLOSELY INSPECT THE HEAD END DEVICE CONNECTOR. ENSURE IT IS TIGHTLY CONNECTED AND NOT CROSS THREADED	OK
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	OK BW
TRACTION MOTORS AND UNDERFRAME	
CHECK THE TRACTION MOTOR LEADS, VERIFY NO LEADS ARE RUBBING ON THE FRAME	MC
INSPECT TRACTION MOTOR COVERS AND ENSURE BOLTS ARE IN PLACE AND TIGHT	OK
CHECK M.U. RECEPTACLE PINS AND LIDS. MAKE NECESSARY REPAIRS	OK
MAKE SURE M.U. CABLES DO NOT FOUL COUPLERS	OK

Tim Brushes, OK

Dyn. Brk. Fan brushes, OK

Grids look good

elec. room OK



UNIT _____

DATE _____

Service Operations

THROTTLE 8 OUTBOUND LOAD TESTS

Eng RPM (900)	EMD	_____	Lube Oil Pres	_____
Eng RPM (1050)	GE	<u>1050</u>	Water Temp	<u>180</u>
Horsepower		<u>3880</u>	Overspeed Setting	<u>1125</u>
Volts (5.3)	B-23	_____	RACK SETTING	<u>215</u>
Volts (7)	C-30	_____		
Volts (720)	B-39	<u>705</u>		<u>3865AMP</u>

THROTTLE #1 STALL TEST

OP Mode	(PWR)	_____	
AMPS	(300)	_____	
MGA	(1220)	_____	NOT APPLICABLE TO B-23 AND C-30
Charging Rate	(70v)	<u>73</u>	

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.

T. Black
 B. Wiles
 B. Wiles
 M.C.
 NA
 NA
 M.C.
 B. Wiles
 D.B.
 D.B.
 OK
 All seals
 OK

*open doors not close
Shipped*

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	0-17	0-0	3 3/16	yes		✓	L#1							0-on 0-1-17/64"
L#2	0-17	0-0	3 3/16	"		✓	L#2							1-on 0-1-15/64"
L#3	0-17	0-0	3 3/16	"		✓	L#3							2-on 0-1-7/32"
L#4	0-17	0-0	3 3/16	"		✓	L#4							3-on 0-1-5/32"
L#5							L#5							4-on 0-1-7/64"
L#6							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	0-17	0-0	3 3/16	yes		✓	R#1							0-on 0-1"
R#2	0-17	0-0	3 3/16	"		✓	R#2							0-on 1-1-1/16"
R#3	0-17	0-0	3 3/16	"		✓	R#3							0-on 2-1-1/8"
R#4	0-17	0-0	3 3/16	"		✓	R#4							0-on 3-1-3/16"
R#5							R#5							0-on 4-1-1/4"
R#6							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 1/4"

NEW GAUGE

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

CONVERSION CHART FOR WHEEL DIAMETER

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

FLANGE THICKNESS MEASUREMENT

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

COUPLER HEIGHT		PILOT HEIGHT		HEIGHT OF HORIZONTAL END HANDHOLD OR UNCOUPLING LEVER IF USED AS HORIZONTAL HANDHOLD		LOCO RAIL CLEARANCE
FRA	MAX 34 1/2" MIN 31 1/2"	FRONT	FRA MAX 6" MIN 3"	FRONT	5	FRA MIN 2 1/2"
MMA	MAX 34 1/2" MIN 32 1/2"	REAR	MMA MAX 6" MIN 3 1/2"	REAR	4 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)

- 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 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

M. Cooley

SUPERVISORS SIGNATURE

Unit: _____

Date: _____

DEFECTS FOUND DURING INSPECTION

DEFECT <u>LB injector pump</u>	INSPECTED BY: <u>DB</u>
REPAIR <u>New Pump</u>	CORRECTED BY: <u>DB</u>

DEFECT <u>Short hood left side step light out</u>	INSPECTED BY: <u>BW</u>
REPAIR <u>New Receptacle</u>	CORRECTED BY: <u>BW</u>

DEFECT <u>All short hood number lights out</u>	INSPECTED BY: <u>BW</u>
REPAIR <u>new bulbs</u>	CORRECTED BY: <u>BW</u>

DEFECT <u>Broken ground strap #1 Tr</u>	INSPECTED BY: <u>M.C.</u>
REPAIR <u>Repaired</u>	CORRECTED BY: <u>M.C.</u>

DEFECT <u>#1 left sand nozzle missing</u>	INSPECTED BY: <u>MC</u>
REPAIR <u>installed new one</u>	CORRECTED BY: <u>M.C.</u>

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 8525 Time Started 9:00 Time Finished _____

Dave Black changed #13 injector pump.
replace with new pump. set pump timing

Brain Mike Electric subcage

Mike Conley wheels set inspection

if you want any more than that! you
can kiss my ?

Mike Conley repaired front left side
sander hose replaced with ase sand applicator

Bob Johnston changed M. White D. P. H.
engine down

