



M03

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 10/16/4/10 and take no exception to applicable laws, rules and or MMA standards, policies and standards.



UNIT _____

Service Operations

DATE _____

THROTTLE 8 INBOUND LOAD TESTS

Eng RPM (900)	EMD	<u> </u>	Lube Oil Pres	<u>70</u>
Eng RPM (1050)	GE	<u>1050</u>	Water Temp	<u>188</u>
Horsepower		<u>3670</u>	Overspeed Setting	<u>1090</u>
Volts (5.3)	B-23	<u> </u>	RACK SETTING	<u>23.5</u>
Volts (7)	C-30	<u> </u>		
Volts (720)	B-39	<u>690</u>		

THROTTLE #1 STALL TEST

OP Mode	(PWR)	<u>Notch 1 R</u>	
AMPS	(300)	<u>280</u>	
MGA	(1220)	<u>1160</u>	NOT APPLICABLE TO B-23 AND C-30
Charging Rate	(70v)	<u>73</u>	

TL 24T

Throttle 1	(1V)	<u>5.4</u>
Throttle 2		<u>17.1</u>
Throttle 3		<u>28.7</u>
Throttle 4		<u>40.3</u>
Throttle 5		<u>50.8</u>
Throttle 6		<u>59.2</u>
Throttle 7		<u>67.5</u>
Throttle 8	(72V)	<u>71.3</u>

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

<i>In-Bound Loadtest Electrical/Mechanical</i>	WORKED BY:
ELECTRICAL	<i>J. Martin</i>
VERIFY THE OPERATION OF THE GROUND RELAY	<i>J. Martin</i>
CHECK FOR LOW VOLTAGE GROUNDS (7 watt bulb)	<i>J. Martin</i>
WHILE IN THROTTLE 3 LOAD TEST, CHECK FOR AC GROUNDS	
CHECK OPERATION OF:	
A. HEATING	<i>J. Martin</i>
COMPLETE THE OUTBOUND LOAD TEST SHEETS	<i>J. Martin</i>
GROUND RELAY-(TEST THREE TIMES TO VERY LOCK-OUT)(DYNAMIC & POWER)	<i>J. Martin</i>
IF EQUIPPED, VERIFY THE OPERATION OF THE LDVR CAMERA	
MECHANICAL	
PROPER LUBRICATION? FUEL LEAKS? CAM ROLLER ROTATION? ETC.	<i>P M</i>
INSPECT FUEL SYSTEM HOSES AND PIPES FOR LEAKS	<i>P M</i>
INSPECT COOLING SYSTEM:	<i>P M</i>
A: CHECK HOSES AND PIPES FOR LEAKS	<i>P M</i>
CHECK OPERATION OF ENGINE PROTECTION DEVICES:	<i>P M</i>
A. CRANKCASE PRESSURE	<i>P M</i>
VISUALLY INSPECT AIR COMPRESSOR FOR WATER, AIR OR OIL LEAKS	<i>P M</i>
PERFORM MANUAL AIR BRAKE TEST	<i>P M</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:	
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)	
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	

Do on Ken out

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	J. Hartin
VERIFY EVENT RECORDER IS WORKING	J. Hartin
CHECK & RECORD THE DATE ON HEAD END DEVICE <u>2-17-10</u>	J. Hartin
CLOSELY INSPECT THE HEAD END DEVICE CONNECTOR. ENSURE IT IS TIGHTLY CONNECTED AND NOT CROSS THREADED	J. Hartin
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. Hartin
TRACTION MOTORS AND UNDERFRAME	
CHECK THE TRACTION MOTOR LEADS, VERIFY NO LEADS ARE RUBBING ON THE FRAME	J. Hartin
INSPECT TRACTION MOTOR COVERS AND ENSURE BOLTS ARE IN PLACE AND TIGHT	J. Hartin
CHECK M.U. RECEPTACLE PINS AND LIDS. MAKE NECESSARY REPAIRS	J. Hartin
MAKE SURE M.U. CABLES DO NOT FOUL COUPLERS	

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
 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

J. Hartin
J. Hartin
J. Hartin
J. Hartin
J. Hartin

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

FMD S
K. Hasey
K. Hasey
K. Hasey

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

NOTE: 120-
 130-140 main

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)

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

K. Hasey
K. Hasey
K. Hasey

Replaced baggie filters

J. Hartin

Replaced fuel filter

J. Hartin

Replaced Oil Filters

D. Lovelace

Top off all support boxes

K. Hasey

Top off all gear cases with mobile

6800 - K. Hasey

Replaced air comp Intake filters

Replaced Aux cab filters

J. Hartin
J. Hartin

WINTERIZATION	Signature
Winterization – All MMA Locomotives. (August - April)	_____
Inspect front and rear cab door seals replace, as needed (NO TAPE)	D. Conroy
Inspect left and right side window seals replace as needed.	D. Conroy
Inspect Electric cabinet door seals replace as needed.	D. Conroy
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.	N/A
Test Manual Water Dump Valves, Proper Handle, Location, Orifice is Open.	N/A
Close Winter/ Summer doors if equipped.	D. Conroy
Check Traction Motor cover gaskets, install as needed.	K. Hickey
Check condition of Cab Door Hinges (Lubricate all Hinges)	D. Conroy
Check condition of Cab Door Locks (Lubricate all Locks)	D. Conroy
Inspect Cab Windows Slider Rail, Adjust Top Rail as needed, Lubricate with Silicone Grease.	D. Conroy
Renew all Wiper Blades.	D. Conroy
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.	_____

LOCOMOTIVE 8553

DATE 10-1-10

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	1 1/8	1 7/64	2 3/16			L#1						0-on-0-1-17/64"
L#2	1 1/8	1 7/64	1 14/16			L#2						1-on-0-1-15/64"
L#3	1 3/8	1 7/64	1 12/16			L#3						2-on-0-1-7/32"
L#4	1 5/16	1 7/64	2 7/16			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	1 1/8	1 7/64	2 3/16			R#1						0-on-0-1"
R#2	1 1/8	1 7/64	1 5/16			R#2						0-on-1-1-1/16"
R#3	1 5/16	1 7/64	1 12/16			R#3						0-on-2-1-1/8"
R#4	1 3/8	1 7/64	2 9/16			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

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 1/2"	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"

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"	32	FRA MAX 6" MIN 3"	5"	FRA MIN 2 1/2"
MMA	MAX 34 1/2" MIN 32 1/2"	33 1/2	MMA MAX 6" MIN 3 1/2"	7" see defect sheet	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 8453981 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

[Signature]

SUPERVISORS SIGNATURE

[Signature]

Unit: _____

Date: _____

DEFECTS FOUND DURING INSPECTION

DEFECT	COU antenna lead needs new end	INSPECTED BY:	J.H
REPAIR	Replaced ant. cable end	CORRECTED BY:	J.H

DEFECT	Rear Pilot Too high 7" - 7 1/2"	INSPECTED BY:	J.H
REPAIR	Repaired 5 1/2"	CORRECTED BY:	K.H.

DEFECT	Battery acid too low to test	INSPECTED BY:	J.H
REPAIR	Added water - charging batteries	CORRECTED BY:	J.H

DEFECT	Throttle Indicator missing	INSPECTED BY:	J.H
REPAIR	Installed Indicator	CORRECTED BY:	J.H

DEFECT	Cas Fire Ext. out of date	INSPECTED BY:	P.C.
REPAIR	Replace with New	CORRECTED BY:	P.C.

Unit:

8553

Date:

10-4-10

DEFECTS FOUND DURING INSPECTION

DEFECT <i>Brake pistons found needs to be adjusted of HOLED FIXERS</i>	INSPECTED BY: <i>Duffy</i>
REPAIR <i>repair & ADJUSTED</i>	CORRECTED BY: <i>K. Hasey</i>

DEFECT <i>PIN missing, in brake rigging</i>	INSPECTED BY: <i>Duffy</i>
REPAIR <i>Put new one in</i>	CORRECTED BY: <i>K. Hasey</i>

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 _____

Service Operations

THROTTLE 8 OUTBOUND LOAD TESTS

UNIT _____

DATE _____

Eng RPM (900)	EMD	<u> </u>	Lube Oil Pres	<u>95.</u>
Eng RPM (1050)	GE	<u>1040</u>	Water Temp	<u>165</u>
Horsepower		<u>3720</u>	Overspeed Setting	<u>1090</u>
Volts (5.3)	B-23	<u> </u>	RACK SETTING	<u>23.5</u>
Volts (7)	C-30	<u> </u>		
Volts (720)	B-39	<u>500</u>		

THROTTLE #1 STALL TEST

OP Mode	(PWR)	<u>Notch 2 R</u>	
AMPS	(300)	<u>280</u>	
MGA	(1220)	<u>3843</u>	NOT APPLICABLE TO B-23 AND C-30
Charging Rate	(70v)	<u>73</u>	

TL 24T

Throttle 1	(1V)	<u>5.4</u>
Throttle 2		<u>17.2</u>
Throttle 3		<u>26.1</u>
Throttle 4		<u>36.6</u>
Throttle 5		<u>49.0</u>
Throttle 6		<u>54.9</u>
Throttle 7		<u>66.8</u>
Throttle 8	(72V)	<u>71.3</u>