

INBOUND – 92 DAY INSPECTION – MECHANICAL

- | | |
|---|----|
| a) Check heater motors in cab | ED |
| b) Check all wiper motors | ED |
| c) Check horn and bell | BW |
| d) Check sanders (forward & reverse) | |
| e) Check air compressor and governor (kick in @ 130psi and kick out @ 140psi) | BW |

INBOUND AIR BRAKE TEST

- | | |
|--|----|
| a) Independent leakage test | BW |
| b) Automatic leakage test | BW |
| c) Automatic application ball-off test | ED |
| d) Emergency application and PCS trip test | |
| e) Maintaining feature test | |

MAIN RESERVOIR SAFETY VALVE TEST

- | | |
|--|-------|
| a) Drop control & fuel valve switch (watch MR valve – should blow at 150psi) | ED/BW |
| b) Lift control and fuel pump breakers, record reading | 145 |

ENGINE LOADING TEST

- | | |
|---|----|
| a) Make sure it moves in each direction | BW |
|---|----|

COOLING FAN TEST

- | | |
|--|----|
| a) Operate each temperature switch and make sure all shutter cylinders open & according fans engage with proper rotation | ED |
|--|----|

IDLE ENGINE WALK AROUND TEST

- | | |
|--|--------|
| a) Top deck running inspection | KC |
| b) Check for fuel, oil, water, and air leaks | KC |
| c) Check throttle speeds | ED |
| d) Check all water, oil, and sand levels | KC |
| e) Test engine protector and low oil button | KC |
| f) Obtain lube oil sample | KC |
| g) Idle oil pressure | 60 #'S |
| h) Idle engine temperature | 111°F |
| i) Obtain A/C Oil Sample | |

ENGINE ROOM WALK AROUND INSPECTION (IN 7TH OR 8TH NOTCH)

Check exhaust, fuel, water, and oil for leaks

RECORD ALL DEFECTS ON INBOUND DEFECT SHEETS

INBOUND DEFECT SHEET

Engine running inspection

- Cylinder #2, #11 & #12 Valve Bridges loud BO SM
- Left 686 Spitter BO
- A/C Intercooler Safety Pop continuously releasing. SM
- RR & LR Wiper Blades BO
- A/C Governor needs adjusting
- X- All Wiper Motors not working except Front Right
- X- Front Sanders not working (no power)
- X- A/C Governor kicks in at 115 #'s and out at 128#'s (Should be 130#'s to 140#'s)
- X- When PCS tripped: unit continues to load and will not go to idle
- Side Governor Linkage Arm B.O. (short) ED/SM/BW
- All Governor Linkage Bearings and Layshaft Bearings and Seals B.O. ED/SM/BW
- Injectors Should be Replaced SM
- Governor Filling itself with Engine Oil- B.O. ED/BW
- Engine Oil 5" low

WHEEL READINGS

	Nose pack	Wheel thick	Flange height	Flange thick	Tread wear
Left #1	¼	30	1 ¼	1 17/64	1/16
Right #1		3	1 ¼	1 17/64	1/8
Left #2	1/8	22	1 5/16	1 17/64	1/16
Right #2		21	1 5/16	1 17/64	1/16
Left #3	1/8	29	1 ¼	1 17/64	1/8
Right #3		29	1 ¼	1 17/64	1/8
Left #4	1/8	29	1 ¼	1 17/64	1/16
Right #4		27	1 5/16	1 17/64	1/16
Left #5					
Right #5					
Left #6					
Right #6					

Flange height

flange thick

0on0	1	0on0	1 17/64
0on1	1 1/16	1on0	1 15/64
0on2	1 1/8	2on0	1 7/32
0on3	1 3/16	3on0	1 5/32
0on4	1 ¼	4on0	1 7/64
0on5	1 5/16	5on0	1 3/64
0on6	1 3/8	6on0	1 1/32
4on6	1 7/16	7on0	63/64
5on6	1 31/64	8on0	15/16

#1 Side bearing clearances

1/4

#2 Side bearing clearances

1/4

Front draft gear total slack

1/8

Rear draft gear total slack

1/16

Front pilot plate height

Rear pilot plate height

Front coupler height

32

Rear coupler height

30 3/4

92 DAY LOCOMOTIVE F.R.A. INSPECTION

DEFECTS

- Axles #1, #2 & #4 need Journal Oil Changed
- #3 TM Top Inspection Cover Latch almost worn through
- X- #1 TM Lead Clamps Loose
- #2 TM Left Side Axle Boot B.O.

SIGN OFF ON REPAIRS

ED

92 DAY LOCOMOTIVE F.R.A. INSPECTION

DEFECTS

SIGN OFF ON REPAIRS

ENGINE TOP DECK INSPECTION (DEAD)

- | | |
|---|----------|
| a) Check engine rack reading (dead) | 1.96 |
| b) Engine under hydro of cooling system | ED/BW/KC |
| c) Check for dropped valves | ED/KC |
| d) Rotate engine manually and check rocker – roller & cam shaft lobes | ED/KC |
| e) Purge fuel system, check for leaks with black light & record | ED |

AIR BOX INSPECTION

With hydro of cooling

- | | |
|---|-------|
| a) Obtain lead readings and record on air box sheet | ED/KC |
| B) Check top ring land readings & record on air box sheet | ED/KC |
| c) Check ring tension wear & record on air box sheet | ED/KC |
| d) Piston condition & record on air box sheet | ED/KC |
| e) Liner condition & record on air box sheet | ED/KC |

CRANK CASE INSPECTION – 92 DAY

Obtained with hydro of cooling system

- | | |
|--|-------|
| a) Record crankshaft lateral | 1/32 |
| b) Check for rod lateral on all 8 rod throws | ED |
| c) Hammer test all main bearing nuts | ED/KC |
| d) Hammer test all rod nuts and bolts | ED/KC |
| e) Hammer test all piston cooling pipes | ED/KC |
| f) Check all rods for over- heating | ED/KC |
| g) Check for internal water leaks | ED/KC |

STATUS	PREVIOUS READING 07-17-18	POS	READING	LINER COND.	RING COND.	PISTON COND.	RING LAND WEAR	NEW LEAD READING
	.069/.064	1	.054/.056	OK	OK	OK	.012	
	.072/.066	2	.066/.061	OK	TRS	OK	.008	.069/.072
	.069/.069	3	.060/.068	OK	OK	OK	.008	
	.060/.062	4	.053/.047	OK	OK	OK	.008	.060/.058
	.055/.056	5	.055/.060	OK	OK	OK	.008	
	.066/.062	6	.051/.056	OK	TRS WEAK	OK	.013	
	.062/.057	7	.056/.066	OK	STICKY	OK	.008	
	.053/.058	8	.049/.058	OK	OK	OK	.008	
	.067/.071	9	.065/.068	WORN	WORN	WORN	.020	.061/.059
	.066/.066	10	.066/.062	OK	OK	OK	.014	
	.047/.050	11	.050/.052	OK	OK	OK	.008	
	.064/.063	12	.063/.063	OK	OK	OK	.008	
		13						
		14						
		15						
		16						
		17						
		18						
		19						
		20						

INSPECTED BY:

FOREMAN:

TOP DECK/AIR BOX/CRANK CASE INSPECTION DEFECTS

DEFECTS

SIGN OFF

-C/O all Injectors	SM
-Governor Linkage & Layshaft Seals BO	ED/BW
-C/O #7 Cylinder for stuck Rings	
-C/O #9 Cylinder as HLP for being worn	
-Engine Protector Test Block leaks BO	ED
- Marmon Joints between Water Pump Inlets BO	
- Top Water Sight Glass Seal BO	ED
X- #5 Main Bearing Cap Left Front Nut Not to Torque	

NOTE: Copper showing on Upper Rod Bearings on Cylinder #2, #3, #4 & #5

STANDARD INSPECTION ITEMS

FUEL SYSTEM

- a) C/O primary filters KC
- b) C/O secondary filters KC
- c) Clean fuel sight glasses
- d) Prime for leaks ED/BW/KC

COOLING SYSTEM

- a) Check water for treatment ED

LUBRICATION SYSTEM

- a) C/O main lube oil filters KC
- b) C/O air compressor oil filter (if applicable) KC

AIR INTAKE SYSTEMS

- a) C/O engine air intake filters ED/BW
- b) Clean out exhaust and traps
- c) Renew car body filters BW/KC
- d) C/O a/c intake filters KC

AIR BRAKE SYSTEM

- a) Test Air Brake Gauges & Recalibrate
- b) Lubricate Hand Brake and Test Operation ED

TRUCK AND WHEEL ITEMS

- a) Check and fill all journal boxes ED
- b) Check and fill all support bearing oil levels KC
- c) Make sure all wicks are tight KC
- d) Check and fill all gear cases KC
- e) Check and replace or adjust all brake shoes ED/BW
- f) Lube #1 and #2 truck center castings

CAB AND CAR BODY ITEMS

- a) Inspect all fire extinguishers (dates and securement)
- b) Check all wiper blades
- c) Check cab for fuses, torpedoes and flags
- d) Lubricate all shutter linkages and car body hinges

OUTBOUND – 92 DAY RUN CHECKS – MECHANICAL

- a) Check heater motors in cab
- b) Check all wiper motors
- c) Check horn and bell
- d) Check sanders (forward and reverse)
- e) Check A/C & A/C Governor for proper function

OUTBOUND AIR BRAKE TEST

- a) Independent leakage test
- b) Automatic brake leakage test
- c) Automatic application ball-off test
- d) Emergency application and PCS trip test
- d) Maintaining feature test

MAIN RESERVOIR SAFETY TEST

- a) Drop control and fuel pump switch (watch M/R valve should blow @ 150 psi)
- b) Lift control and fuel pump beakers, record reading

ENGINE LOADING TEST

- a) Make sure it moves in each direction

COOLING FAN TEST

- a) Operate each temperature switch and make sure all shutter cylinders open and according fans engage with proper rotation

IDLE ENGINE – WALK AROUND TEST

- a) Top deck running inspection
- b) Check for fuel, water and oil leaks
- c) Check throttle speeds
- d) Check water, oil and sand levels
- e) Test engine protector and low oil button
- f) Check all inbound defects for repairs
- g) Idle oil pressure
- h) Idle engine temperature

ENGINE ROOM – WALK AROUND INSPECTION (IN 7TH OR 8TH NOTCH)

- a) Check exhaust, fuel, water, and oil for leaks and repair

92 – DAY ELECTRICAL INSPECTION

UNIT #

1037

DATE 05-19-19

1.) Meg. Sys. /Ground relay trip	Ohms	Amps	GOING TO IDLE	BW
2.) Check for low voltage grounds				*ED
3.) Main Generator				
a) Check brushes and holders				*ED/BW
b) Check for flashover & paint bare spots				ED/BW
c) Clean inside of generator if necessary				ED/BW
d) Check Slip Ring Brushes				
4.) Load Regulator				
5.) Check auxiliary generator				
a) Check brushes & holders				ED/BW
b) Clean if necessary				ED/BW
6.) Voltage Regulator	VDC	72.1		ED
7.) Traction Motors				
a) Check brushes, holders and cables				KC
b) Check for flashover & paint bare spots				KC
c) Check motor leads & securement				KC
8.) Fuel pump				
a) Check brushes and armatures				
9.) Electrical Cabinets				
a) Check for loose wires & connections				
10.) Control stand				*ED/BW
11.) A C cabinet				
a) Check for loose wires & connections				
12.) Lighting Equipment				
a) Check front & rear headlights and ditch lights				ED/BW/KC
b) Check cab, car body & control stand lights				ED/BW/KC
13.) MU receptacles				
a) Check & Clean				
14.) Batteries				
a) Check & fill cells with water				BW
b) Check battery connection				BW
c) Check battery box connection				BW
15.) Cab Heaters				
a) Check motor brushes				
b) Clean interior if necessary				ED/BW
c) Aux Heaters				ED/BW

ELECTRICAL INSPECTION DEFECTS

DEFECTS

SIGN OFF

- Main Generator Brushes BO
- Wire Insulation flaking off in Control Stand
- Unit has Negative Low Voltage Ground (need to troubleshoot further)
- PCS Light Stays on unless in Emergency
- PCS Light Bulb BO
- Front & Rear Headlights only work on dim & high
- X- Left Rear Headlight no change from Medium to Bright
- X- Front Headlights do not change brightness
- Head light circuit needs completely rewired

ED
ED