Unit No. _____ **Date_____**

INBOUND – 6 Month (184 DAY) INSPECTION – MECHANICAL

a) Check heater motors in cab._____
b) Check all wiper motors and lubricate wiper motors._____
c) Check horn and bell._____
d) Check sanders (forward & reverse), hoses, pipes, and traps._____
e) Check air compressor and governor (kick in @ 130psi and kick out @ 140psi)._____

INBOUND AIR BRAKE TEST

a) Independent leakage test._____
b) Automatic leakage test._____
c) Maintaining feature test._____
d) Automatic application ball-off test._____
e) Emergency application and PCS trip test._____
f) Crew alertness test _____
g) Leakage from the main air reservoir and related piping may not exceed an average of 3 PSI for 3 minutes, after the pressure has been reduced to 40% of the maximum pressure._____

MAIN RESERVOIR SAFETY VALVE TEST

a) Drop control & fuel valve switch (watch MR valve – should blow at 150psi)._____
b) Lift control and fuel pump breakers, record reading._____

ENGINE LOADING TEST

a) Make sure it moves in each direction._____

b) Check operation of traction motor cut outs and that unit loads. _____

COOLING FAN TEST

a) Operate each temperature switch and make sure all shutter cylinders open and according to fans engage with proper rotation. Check operation of hot engine alarm and light. _____

IDLE ENGINE WALK AROUND TEST

a) Inspect top deck, check cylinder heads and components, inspect for water and fuel leaks, valve bridges for excessive noise. Inspect cam shaft and rocker arm assemblies for any defects._____
b) Check for fuel, oil, water, and air leaks; add oil if needed. _____
c) Check throttle speeds._____
d) Check all water, oil, and sand levels._____
e) Test engine protector and low oil button._____
f) Obtain engine oil sample. **Take oil sample for analysis before adding oil.**_____

g) Idle oil pressure._____

h) Idle engine temperature._____

i) Obtain A/C Oil Sample._____

j) Obtain coolant sample if required. _____

k) Check operation of main reservoir drain valves. _____

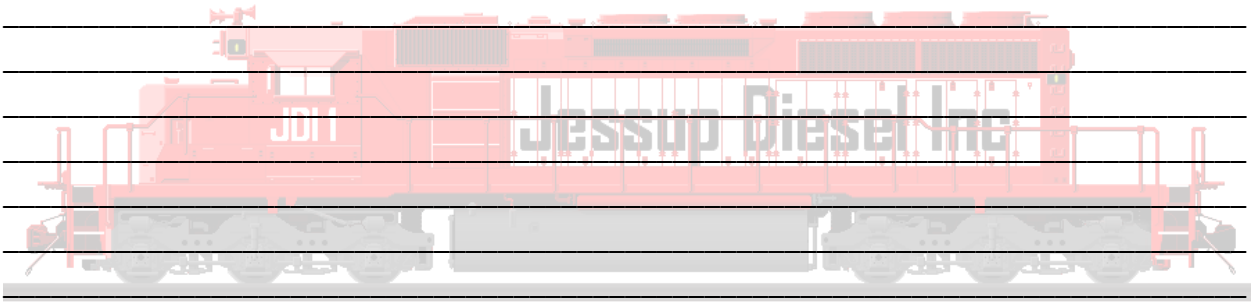
ENGINE ROOM WALK AROUND INSPECTION (IN 7TH OR 8TH NOTCH)

Check exhaust, fuel, water, and oil for leaks _____

RECORD ALL DEFECTS ON INBOUND DEFECT SHEETS

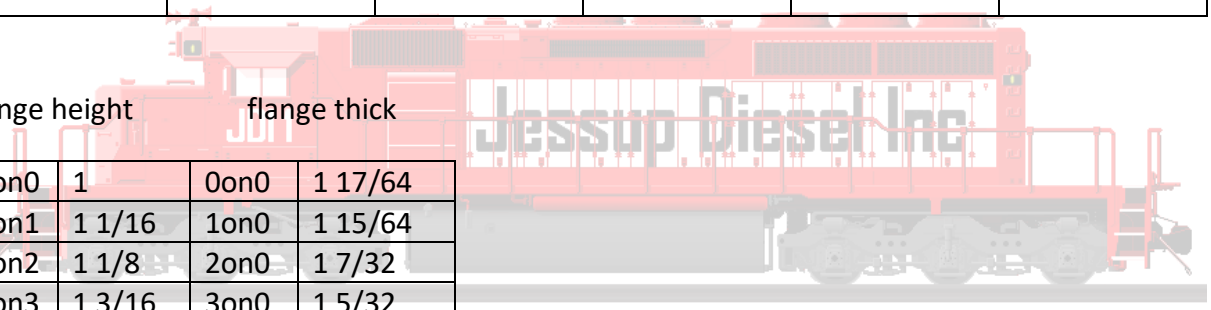
Inbound DEFECT SHEET

Engine running inspection



WHEEL READINGS

	Nose pack	Wheel thick	Flange height	Flange thick	Tread wear
Left #1					
Right #1					
Left #2					
Right #2					
Left #3					
Right #3					
Left #4					
Right #4					
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 Lt: _____ Rt: _____

#2 Side bearing clearances Lt: _____ Rt: _____

Front draft gear total slack _____

Rear draft gear total slack _____

Front pilot plate height _____

Rear pilot plate height _____

Front coupler height _____

Rear coupler height _____

6 Month (184 DAY) LOCOMOTIVE F.R.A. INSPECTION

FRA INSPECTION - CAB

a.) Inspect all seats and seat bases for proper condition and operation. _____
b.) Inspect condition of cab floor, remove all trash from cab._____
c.) Inspect all cab windows and record any damages found. (FRA Part 223 Glazing)._____
d.) Check sun visors _____
e.) Inspect cab and engine room fire extinguishers and record service date._____
    a. Service Date: _____
f.) Inspect cab doors, latches, and hinges for proper alignment._____

FRA INSPECTION – CAR BODY

a.) Inspect condition of steps for cracks and defects, inspect for any loose bolts._____
b.) Inspect all walkways, cat walks, and safety chain; inspect cab hoods, frame, handrails for FRA compliance, cracking and other defects._____
c.) Check all safety guards for proper placement._____
d.) Ensure that frame has correct stenciling, "Emergency Fuel Cutoff," the letter "F" on each front corners of locomotive, AIE tags, and ensure the locomotive identification is legible._____

FRA INSPECTION – TRUCK ASSEMBLY

a.) Inspect frame for cracks and loose piping._____
b.) Inspect axle cap bolts, springs, swing hanger and pins._____
c.) Add support oil as needed. Also inspect cap bolts and lock wire._____
d.) Inspect gear cases and replenish lubricant as needed. Inspect bolt tightness, report any leaks found._____
e.) Inspect Hyatt boxes for proper lubrication, add oil as needed._____
f.) Inspect and adjust brake cylinder travel, check for leaks and condition of flexible hoses. Inspect brake shoes for thickness and alignment. Repair any overriding issues. _____
g.) Check brake rigging for proper movement and height. Inspect brake heads for wear and retaining keys are in place. NOTE: brake shoes must not contact the wheel when the brakes are released._____

FRA INSPECTION – ENGINE

a.) Inspect fan assembly, idler radiator, drive shaft pillow block, belt tension, lubricate pillow block bearings with high temperature grease only on switchers. _____
b.) Inspect accessory rack, front and back of engine._____
c.) Inspect engine "V" for oil and water; check for proper exhaust bolts torque and condition of stacks (130 ft-lbs.)_____
d.) Clean spark arrestor traps and engine exhaust V. Clean external spark arrestors if unit is equipped._____
e.) Inspect engine base bolts and dowels for proper torque. (375 ft-lbs.) _____
f.) Inspect front and rear traction motor blowers. Clean intake screens if needed. Ensure that drive belts are in good condition and have proper tension. Ensure that blower mounting is secure on switchers. _____
g.) Lubricate blower bearings. Inspect drive shaft and couplings on switchers. _____
h.) Inspect condition of fuel tank, check bolt tightness, and for leaks, clean sight glass if needed._____
i.) Inspect condition of air box drains. Check for water, ensure that drain valves are working properly, and overflow vent are not plugged._____

j.) Inspect air compressor mounting bolts and dowels, change all filters and check couplings._____

k.) Inspect lube oil separator for any vacuum leaks and service the strainer._____

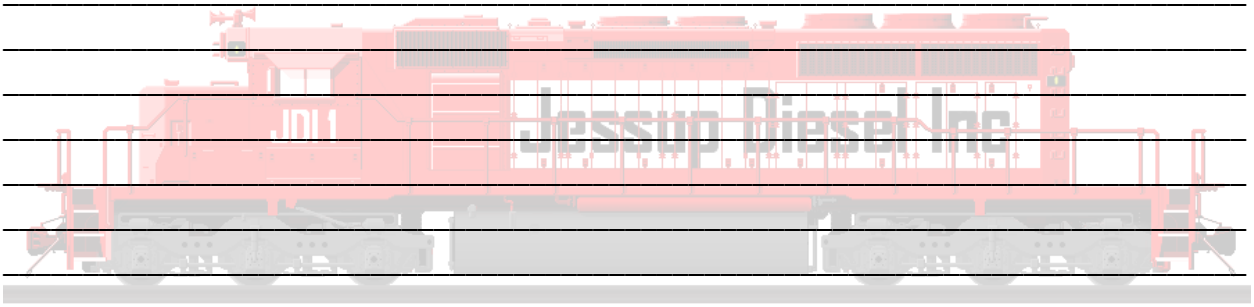
6 Month (184 DAY) LOCOMOTIVE F.R.A. INSPECTION

DEFECTS **SIGN OFF ON REPAIRS**



6 Month (184 DAY) LOCOMOTIVE F.R.A. INSPECTION

DEFECTS **SIGN OFF ON REPAIRS**



ENGINE TOP DECK INSPECTION (DEAD)

a.) Check engine rack reading (dead)._____

b.) Engine under hydro of cooling system._____

c.) Check for dropped valves._____

d.) Rotate engine manually and check rocker – roller & cam shaft lobes._____

e.) Purge fuel system, check for leaks with black light & record._____

f.) Check water level, add water treatment if needed._____

g.) Clean internal and external spark arrestors._____

AIR BOX INSPECTION

With hydro of cooling

a) Obtain lead readings and record on air box sheet._____

B) Check top ring land readings & record on air box sheet._____

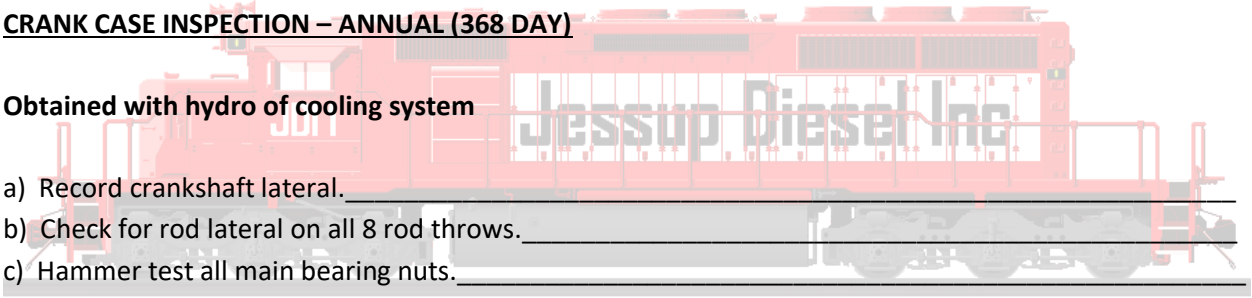
c) Check ring tension wear & record on air box sheet._____

d) Piston condition & record on air box sheet._____

e) Liner condition & record on air box sheet._____

CRANK CASE INSPECTION – ANNUAL (368 DAY)

Obtained with hydro of cooling system



a) Record crankshaft lateral._____

b) Check for rod lateral on all 8 rod throws._____

c) Hammer test all main bearing nuts._____

d) Hammer test all rod nuts and bolts._____

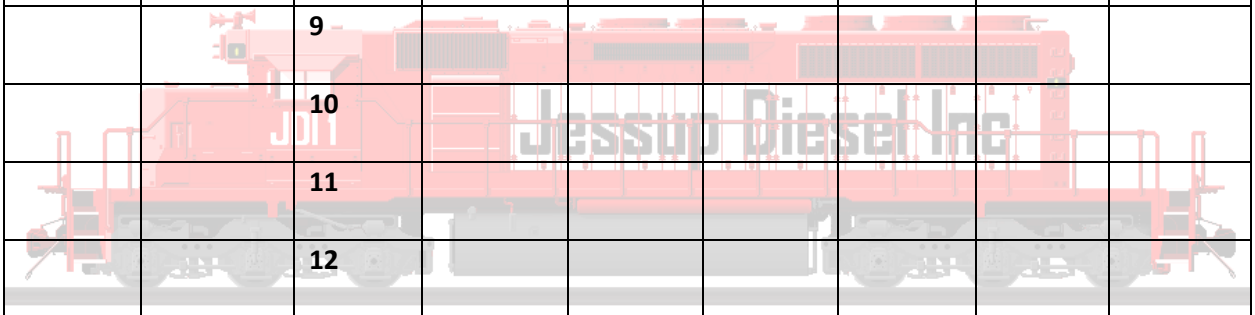
e) Hammer test all piston cooling pipes._____

f) Check all rods for over- heating._____

g) Check for internal water leak._____

AIR BOX INSPECTION REPORT UNIT# : **DATE:**

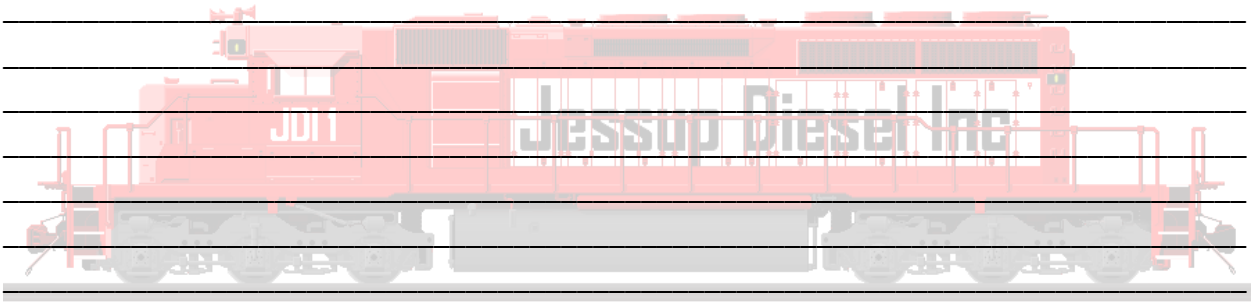
STATUS	PREVIOUS READING	POS	READING	LINER COND.	RING COND.	PISTON COND.	RING LAND WEAR	NEW LEAD READING
		1						
		2						
		3						
		4						
		5						
		6						
		7						
		8						
		9						
		10						
		11						
		12						
		13						
		14						
		15						
		16						
		17						
		18						
		19						
		20						



INSPECTED BY: **FOREMAN:**

TOP DECK/AIR BOX/CRANK CASE INSPECTION DEFECTS

DEFECTS **SIGN OFF**



STANDARD INSPECTION ITEMS

FUEL SYSTEM

a) C/O primary filters._____
b) C/O secondary filters._____
c) Clean fuel sight glasses._____
d) Prime for leaks._____

COOLING SYSTEM

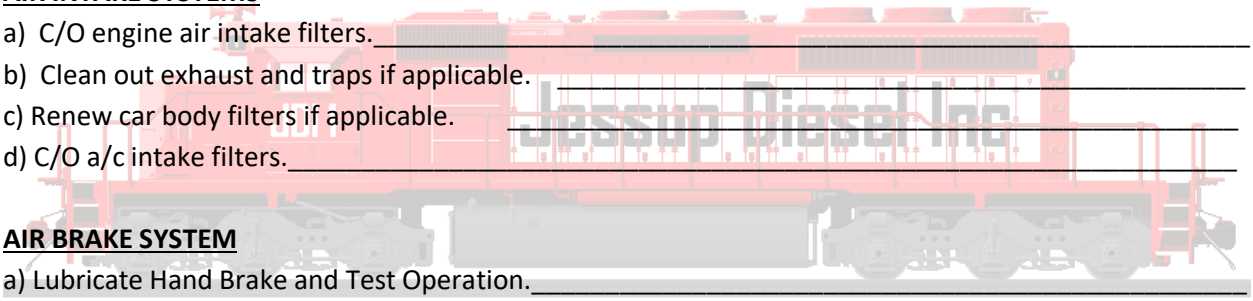
a) Check water for treatment._____

LUBRICATION SYSTEM

a) C/O main lube oil filters._____
b) C/O air compressor oil filter (if applicable)._____
c) C/O Turbo supply and soak back filters if applicable. _____

AIR INTAKE SYSTEMS

a) C/O engine air intake filters._____
b) Clean out exhaust and traps if applicable. _____
c) Renew car body filters if applicable. _____
d) C/O a/c intake filters._____



AIR BRAKE SYSTEM

a) Lubricate Hand Brake and Test Operation._____

TRUCK AND WHEEL ITEMS

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

Clean cab _____
Drain retention tank. _____
Inspect and clean air compressor unloader pistons. Install new gaskets if the old gaskets are torn or damaged. _____

OUTBOUND – ANNUAL (368 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._____

f) Verify air compressor settings and the 150 PSI valve to insure all the auto drain valves are functioning properly._____

OUTBOUND AIR BRAKE TEST

a) Independent leakage test._____

b) Automatic brake leakage test._____

c) Maintaining feature test._____

d) Automatic application ball-off test._____

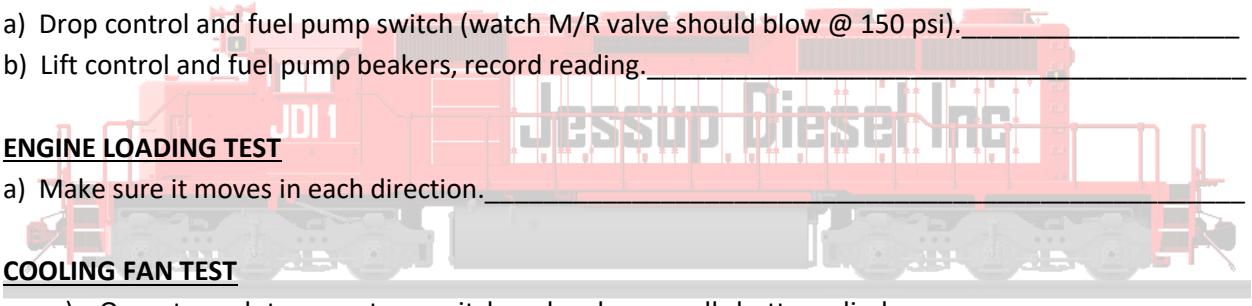
e) Emergency application and PCS trip test._____

f) Alerter 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 to 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._____

6 Month (184 DAY) ELECTRICAL INSPECTION

UNIT # _____ **DATE** _____

1.) Meg. Sys. /Ground relay trip **Ohms** **Amps**

2.) Check for low voltage grounds._____

3.) Main Generator

a) Check brushes and holders._____

b) Check for flashover & paint bare spots._____

c) Clean inside of generator if necessary._____

d) Check Slip Ring Brushes._____

4.) Load Regulator._____

5.) Check auxiliary generator

a) Check brushes & holders._____

b) Clean if necessary._____

6.) Voltage Regulator **VDC**_____

7.) Traction Motors

a) Check brushes, holders and cables._____

b) Check for flashover & paint bare spots._____

c) Check motor leads & securement._____

8.) Fuel pump and turbo pre-lube pump if appicable

a) Check brushes and armatures._____

9.) Electrical Cabinets

a) Check for loose wires & connections._____

10.) Control stand._____

11.) A C cabinet

a) Check for loose wires & connections._____

12.) Lighting Equipment

a) Check front & rear headlights and ditch lights._____

b) Check cab, car body & control stand lights._____

13.) MU receptacles

a) Check & Clean._____

14.) Batteries

a) Check & fill cells with water._____

b) Check battery connection._____

c) Check battery box connection._____

15.) Cab Heaters

a) Check motor brushes._____

b) Clean interior if necessary._____

c) Check side wall Heater connections _____

Jessup Diesel Inc

ELECTRICAL INSPECTION DEFECTS

DEFECTS **SIGN OFF**

