



PR43C Locomotive Maintenance Schedules



LOCOMOTIVE SCHEDULED MAINTENANCE 90/92-DAY
LOCOMOTIVE SCHEDULED MAINTENANCE 184-DAY
LOCOMOTIVE SCHEDULED MAINTENANCE 368-DAY
LOCOMOTIVE SCHEDULED MAINTENANCE 1104-DAY
LOCOMOTIVE SCHEDULED MAINTENANCE 1840-DAY
FILTER PARTS LIST

PR43-021-00

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LOCOMOTIVE SCHEDULED MAINTENANCE 90/92-DAY

PROGRESS RAIL SERVICES SCHEDULED MAINTENANCE PROGRAM IS TO BE MATCHED TO THE APPLICABLE FEDERAL SCHEDULED MAINTENANCES AS MANDATED BY THE (FRA, USA) AND (TC-TRANSPORT CANADA) FOR THE 92 FRA OR 90 & 180 TC, DAY INSPECTIONS AS PER PROGRESS RAIL SERVICES PROCEDURES AND POLICIES.

RAILROAD: _____

LOCOMOTIVE INITIALS & NUMBER: _____

LOCATION WHERE MAINTENANCE WAS PERFORMED: _____

DATE IN SHOP: _____

DATE OUT SHOPPED: _____

TOTAL MAN HOURS SPENT: _____

NAME OF CONTRACTOR PERFORMING THE MAINTENANCE

IF NOT RAILROAD EMPLOYEES:

By signing below I certify that this locomotive is ready for service and meets the railroad's and PROGRESS RAIL SERVICES' commitment to quality and reliability. I have reviewed the attached maintenance sheets and forms where blank lined spaces have been provided, to insure that the craftsman completing the task has signed each line legibly and that initials were not substituted for legible signatures.

GENERAL MANAGER, CMO, OR SHOP FOREMAN:

WHEEL MEASUREMENTS OF LOCOMOTIVE MUST BE TAKEN. PROGRESS RAIL SERVICES FORM 7070 ATTACHED TO THIS WORK ORDER MUST BE USED TO ENSURE WHEELS ON THE LOCOMOTIVE IS IN COMPLIANCE WITH FRA AND TC REGULATIONS.

ENSURE THAT THE LOCOMOTIVE IS PROPERLY SECURED AND BLUE FLAGGED BEFORE PROCEEDING AND THAT ALL PROGRESS RAIL SERVICES SAFETY RULES ARE FOLLOWED EXPLICITLY.

Retain down load for 365 days.

Inbound Running Checks

OPEN TEST COCKS BEFORE STARTING ENGINE

		<i>Worked</i>	<i>Notes:</i>
		<i>By:</i>	
CHECK ALL FLUID LEVELS, FILL AS NEEDED	1. Air Compressor (and obtain oil sample)		
	2. Engine (and obtain oil sample)		
	3. Coolant		
	4. Observe oil level in alternator gear box drive		
	5. Hydraulic fluid level		
ECM DOWNLOAD	1. Check diagnostics and repair as necessary.		
SYSTEM LEAKS	1. Check cooling system for leaks. Repair defects.		
	2. Check oil system for leaks. Repair defects.		
	3. Check exhausts system for leaks. Repair defects.		
	4. Check fuel system for leaks. Repair defects.		
	5. Check alternator gear-box for leaks.		
EVENT RECORDER	1. Verify operation of Event Recorder. Print a copy and attach to these maintenance sheets.		
	2. Test alerter / RSC (TC required 90 days).		
SPEED INDICATOR	1. Verify calibration of electronic speed indicator. Set calibration to measured wheel size. Seal speedometer.		
AIR COMP SETTING	1. Check operation of compressor circuit. Set pick-up at 130 psi, drop-out set at 140 psi, if required.		
AIR BRAKE	1. Perform standard air brake test per FRA CFR 229.46		
WINDOWS	1. Check wiper operation, blades, arms, & motors		
	2. Check windows for cracks		
TOILET	1. Check and service as necessary		

Worked Notes:
By:

TRAINLINE ALARMS	1. Check operation of train line. Alarms. Pin 2 – Alarm Bell Pin 10 – Wheel Slip Light Pin 20 – Brake Warning (Dyn. Eq.)		
RESISTANCE TEST	1. Test for low voltage grounds using a test light with 30-watt bulb.		
DYNAMIC BRAKE TEST	1. With locomotive properly secured, check dynamic braking as follows: <ol style="list-style-type: none"> a. Check DBI operation – Set up air brakes with automatic brake valve, then set up Dynamic Brakes (air brakes should release). Return DB handle to the off position (air brakes should set up). b. Set up in Dynamic Braking, handle in #1 and note increase in engine speeds. At both front and rear receptacles, check train line pins #17+ and #21+ to #4-, should read 74 volts. Check Train line #24 voltage, should increase as brake handle is moved from #1 to #8. 		
GROUND RELAY	1. Verify proper operation of ground relay circuit.		
FUEL SHUT-DOWN	1. Verify all emergency fuel shutdowns operate. (Jump FPCR A1-A2 with test light to test)		
CAB HEATERS	1. Check operation.		
LIGHTS	1. Check operation of all lights.		
HORN & BELL	1. Check operation		
T.M. CUT-OUTS	1. Check operation of T.M cutouts, forward and reverse.		
BATTERIES	1. Check battery electrolyte level.		

ENGINE SHUTDOWN MAINTENANCE

INSPECTION: Review any defect and attach to these inspection sheets.

		<i>Worked</i>	<i>Notes:</i>
		<i>By:</i>	
WHEELS	1. Take wheel, truck & coupler measurements and record on wheel report. Form 7070		
	2. Check for skids, flats, gouges, chips, hollows, shells and thermal cracks.		
COUPLER	1. Inspect couplers, yokes, draft gears, cut levers, gauge knuckle and check anti-creep. Repair defects.		
TRACTION MOTOR	1. Remove top cover plate and inspect motor for defects. (Replace all brushes in a brush box if one or more of the brushes do not display one (1) wear limit line. Brushes should move freely in the brush holder. Replace chipped brushes or brushes with damaged pigtails.)		
	2. Clean TM blower intake screens		
TRUCKS	1. Check fluid level in support bearings and fill with MOBIL 501		
	2. Ensure support bearing drain plug, support bearing bolts and support bearing wick bolts are tight and lock wired securely.		
	3. Lubricate center castings if equipped with external lubrication device. USE MOBIL 501		
	4. Inspect truck equalizer safety hanger. Cannot be in contact with spring plank (MINIMUM 3/8 INCH CLEARANCE)		
	5. Inspect for broken springs on journal boxes, elliptical springs and bolster springs.		
	6. Inspect crater level or honey lube in gear case. Add as necessary paying close attention if honey lube or crater.		
	7. Check fluid level of journal boxes and fill with MOBIL 501		
	8. Inspect for proper side bearing clearance. (5/32" minimum to 1/4" maximum).		
	9. Inspect pedestal liners and replace any that are loose, pieces missing or if worn excessively.		
	10. Examine foundation brake rigging.		

		<i>Worked</i>	<i>Notes:</i>
		<i>By:</i>	
TRUCKS (Cont.)	11. Examine handbrake for proper operation.		
	12. Inspect brake shoes and change shoes as necessary and adjust piston travel.		
AXLE ALTERNATOR	1. Inspect and repair axle generator.		
M.U.	1. Clean as required.		
PILOT & GANGWAY	1. Inspect steps, pilot, safety chains, vertical and horizontal handholds, floor treads, folding walkways and handrails. Repair defects.		
FUEL TANK	1. Inspect mounting bolts and safety hangers. Repair defects.		
	2. Inspect gauges. Repair defects.		
	3. Inspect fuel sight glasses. Clean as necessary		
	4. Check Primary Fuel filters and drain as necessary		
MAIN RESERVOIR	1. Renew automatic drain valves if inoperative.		
	2. Check drain magnet valves. Replace if needed.		
	3. Renew dirt filter/collector automatic drain valves if inoperative.		
AIR HOSES MU VALVES	1. Inspect MU hoses and glad hands.		
	1. Check all MU and train line air c/o valves for defects. Replace as needed.		
SANDING SYSTEM	1. Inspect sanding system hoses and sand traps. Repair defects.		
	2. Clean and inspect sander relay valves.		
GENERATOR	1. Clean all intake screens		
	2. Inspect auxiliary generator coupling & rubber bushings.		
ELECTRICAL	1. Check and all high voltage connections and jumpers		
	2. Inspect all electrical devices and insulation for potential problems		

Outbound Running Checks

		<i>Worked</i>	<i>Notes:</i>
		<i>By:</i>	
CHECK ALL FLUID LEVELS AND CHECK FOR SYSTEM LEAKS	1. Air Compressor		
	2. Engine		
	3. Coolant		
	4. Alternator Gear Box drive		
	5. Hydraulic		
	6. Fuel		
ECM DOWNLOAD	1. Check diagnostics and repair as necessary		
FRA CAB CARD CRAFTSMAN	1. After all applicable items of the card have been inspected and repaired as needed, sign the card legibly using your full name.		

WHEEL & TRUCK REPORT

Locomotive: _____

Employee: _____

Date: _____

	Wheel Thickness (229.75(j))	Flange Height (229.75(h))	Flange Thickness (229.75(f))	Witness Reading (229.73)	Shims Installed (229.73(b))	Pedestal Jaw Wear	Side Bearing Clearance (229.69(b))
L#1							RF
L#2							LF
L#2							RR
L#4							LR
L#5							Wear Limits ¼" each side ½" total
L#6							
R#1							
R#2							
R#3							
R#4							
R#5							
R#6							
Wear Limits	17/16" MIN 16/16" Fed	23/16" MAX 24/16" Fed	15/16" MIN 14/16" Fed	8/16" MIN	8/16" MAX Installed	8/16"	

	Coupler Slack (229.61(a)(2)(4))	Coupler Height (232.2)	Pilot Height (229.123)	Coupler Swing	
Front					
Rear					
Wear Limits	8/16"	31 ½" 34 ½"	3" 6"	8"	MIN MAX

Condition of Springs (229.65)			
Front		Rear	
L		L	
R		R	

Comments:

Wheel Sets (FRA Part 229.73)

- (229.73(a)) Variation between wheels on the same axle may not exceed 4/16" when applied or turned.
- (229.73(b)) Variation between wheel diameter on the same SD truck may not exceed 12/16" without shims and 20/16" with shims.
- (229.73(b)) Variation between wheel diameters on different SD trucks may not exceed 20/16".

CONVERSION FOR FLANGE HEIGHT		CONVERSION FOR FLANGE WIDTH	
0 - 0 = 17/16	0 - 5 = 21/16	0 - 0 = 20/16	0 - 7 = 16/16
0 - 1 = 18/16	0 - 6 = 22/16	0 - 2 = 19/16	0 - 8 = 15/16
0 - 2 = 19/16	4 - 6 = 23/16	0 - 4 = 18/16	0 - 9 = 14/16
0 - 4 = 20/16	8 - 6 = 24/16	0 - 5 = 17/16	

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LOCOMOTIVE SCHEDULED MAINTENANCE 184-DAY

PROGRESS RAIL SERVICES SCHEDULED MAINTENANCE PROGRAM IS TO BE MATCHED TO THE APPLICABLE FEDERAL SCHEDULED MAINTENANCES AS MANDATED BY THE (FRA, USA) AND (TC-TRANSPORT CANADA) FOR THE 92 FRA OR 90 & 180 TC, DAY INSPECTIONS AS PER PROGRESS RAIL SERVICES PROCEDURES AND POLICIES.

RAILROAD: _____

LOCOMOTIVE INITIALS & NUMBER: _____

LOCATION WHERE MAINTENANCE WAS PERFORMED: _____

DATE IN SHOP: _____

DATE OUT SHOPPED: _____

TOTAL MAN HOURS SPENT: _____

NAME OF CONTRACTOR PERFORMING THE MAINTENANCE

IF NOT RAILROAD EMPLOYEES:

By signing below I certify that this locomotive is ready for service and meets the railroad's and PROGRESS RAIL SERVICES' commitment to quality and reliability. I have reviewed the attached maintenance sheets and forms where blank lined spaces have been provided, to insure that the craftsman completing the task has signed each line legibly and that initials were not substituted for legible signatures.

GENERAL MANAGER, CMO, OR SHOP FOREMAN:

WHEEL MEASUREMENTS OF LOCOMOTIVE MUST BE TAKEN. PROGRESS RAIL SERVICES FORM 7070 ATTACHED TO THIS WORK ORDER MUST BE USED TO ENSURE WHEELS ON THE LOCOMOTIVE IS IN COMPLIANCE WITH FRA AND TC REGULATIONS.

ENSURE THAT THE LOCOMOTIVE IS PROPERLY SECURED AND BLUE FLAGGED BEFORE PROCEEDING AND THAT ALL PROGRESS RAIL SERVICES SAFETY RULES ARE FOLLOWED EXPLICITLY:

Inbound Running Checks

OPEN TEST COCKS BEFORE STARTING ENGINE

		<i>Worked</i>	<i>Notes:</i>
		<i>By:</i>	
CHECK FLUID LEVELS, FILL AS NEEDED	1. Check Coolant and obtain sample (Level 1)		
	2. Engine – Check for significant oil loss and obtain sample		
	3. Observe Oil Level in alternator gearbox drive		
	4. Check Air Compressor oil and obtain sample		
	5. Hydraulic Oil – Fill as necessary and obtain sample. (Expected life 3-4 years between changes)		
ECM DOWNLOAD	1. Check and diagnostics and repair as necessary		
SYSTEM LEAKS	1. Check cooling system for leaks. Repair defects.		
	2. Check oil system for leaks. Repair defects.		
	3. Check exhausts system for leaks. Repair defects.		
	4. Check fuel system for leaks. Repair defects.		
	5. Check alternator gearbox for leaks.		
EVENT RECORDER	1. Verify operation of Event Recorder by using verification program and lap top computer. Print a copy and attach to these maintenance sheets.		
	2. Test alerter / RSC (TC required 90 days).		
SPEED INDICATOR	1. Verify calibration of electronic speed indicator. Set calibration to measured wheel size. Seal speedometer.		
AIR COMP SETTING	1. Check operation of compressor circuit. Set pick-up at 130 psi, drop-out set at 140 psi, if required.		
	2. Test Main Reservoir safety pop valve (TC required 180 days).		
	3. Air compressor orifice test (TC required 180 days)		

		<i>Worked</i>	<i>Notes:</i>
		<i>By:</i>	
AIR BRAKE	1. Perform standard air brake test per FRA CFR 229.46		
WINDOWS	1. Check wiper operation, blades, arms, & motors. 2. Check windows for cracks		
TRAINLINE ALARMS	1. Check operation of train line. Alarms. Pin 2 – Alarm Bell Pin 10 – Wheel Slip Light Pin 20 – Brake Warning (Dyn. Eq.)		
RESISTANCE TEST	1. Test for low voltage grounds using a test light with 30-watt bulb.		
DYNAMIC BRAKE TEST	1. With locomotive properly secured, check dynamic braking as follows: a. Set up in Dynamic Braking, handle in #1 and note increase in engine speeds. At both front and rear receptacles, check train line pins #17+ and #21+ to #4-, should read 74 volts. Check Train line #24 voltage, should increase as brake handle is moved from #1 to #8. b. Check DBI operation – Set up air brakes with automatic brake valve, then set up Dynamic Brakes (air brakes should release). Return DB handle to the off position (air brakes should set up).		
GROUND RELAY	1. Verify proper operation of ground relay circuit.		
FUEL SHUT-DOWN	1. Verify all emergency fuel shutdowns operate. (Jump FPCR A1-A2 with test light to test)		
CAB HEATERS	1. Check operation of cab heaters.		
LIGHTS	1. Check operation of all lights.		

Worked **Notes:**
By:

T.M. CUT-OUTS	1. Check operation of T.M cutouts, forward and reverse.		
BATTERIES	1. Check battery electrolyte level		

ENGINE SHUTDOWN MAINTENANCE

INSPECTION: Review any defect and attach to inspection sheets

ENGINE PREP	1. Drain oil from engines		
WHEELS	1. Take wheel, truck & coupler measurements and record on wheel report. Form 7070		
	2. Check for skids, flats, gouges, chips, hollows, shells and thermal cracks.		
COUPLER	1. Inspect couplers, yokes, draft gears, cut levers, gauge knuckle and check anti-creep. Repair defects.		
ENGINE MODULE	1. Replace Air Filters, DEO Filters, and Fuel		
	2. Filters		
	3. Oil Fill and Fuel Prime		
	4. Clean power electronics intake screens and heat sinks Note: First 184 day inspection should include a valve lash reset		
TRACTION MOTOR	1. Remove top cover plate and inspect motor for defects. (Replace all brushes in a brush box if one or more of the 3 brushes do not display one (1) wear limit line. All brushes should move freely in the brush holder. Replace chipped brushes or brushes with damaged pigtails.)		
	2. Clean TM blower intake screens		
TRUCKS	1. Check fluid level in support bearings and fill with MOBIL 501		
	2. Ensure support bearing drain plug, support bearing bolts and support bearing wick bolts are tight and lock wired securely.		

		<i>Worked</i>	<i>Notes:</i>	
		<i>By:</i>		
TRUCKS (CONT.)	3.	Lubricate center castings if equipped with external lubrication device. USE MOBIL 501		
	4.	Inspect truck equalizer safety hanger. Cannot be in contact with spring plank (MINIMUM 3/8 INCH CLEARANCE)		
	5.	Inspect for broken springs on journal boxes, elliptical springs and bolster springs.		
	6.	Inspect crater level or honey lube in gear case. Add as necessary paying close attention if honey lube or crater.		
	7.	Check fluid level of journal boxes and fill with MOBIL 501		
	8.	Inspect for proper side bearing clearance. (5/32" minimum to 1/4" maximum).		
	9.	Inspect pedestal liners and replace any that are loose, pieces missing or if worn excessively.		
	10.	Examine foundation brake rigging.		
	11.	Examine handbrake for proper operation.		
	AIR BRAKE CONTROLS	1.	Drain Filter	
	AXLE ALTERNATOR	1.	Inspect and repair axle generator.	
M.U.	1.	Clean as required.		
PILOT & GANGWAY	1.	Inspect steps, pilot, safety chains, vertical and horizontal handholds, floor treads, folding walkways and handrails. Repair defects.		
FUEL TANK	1.	Inspect mounting bolts and safety hangers. Repair defects.		
	2.	Inspect gauges. Repair defects.		
	3.	Inspect fuel sight glasses. Clean as necessary		
	4.	Replace primary fuel filters		
MAIN RESERVOIR	1.	Renew automatic drain valves if inoperative.		
	2.	Check automatic drain magnet valves. (Replace if not working).		
	3.	Renew dirt filter/collector automatic drain valves if inoperative.		

		Worked	Notes:
		By:	
AIR HOSES	1. Inspect MU hoses and glad hands.		
MU VALVES	1. Check all MU and train line air c/o valves for defects. Replace as needed.		
SANDING SYSTEM	1. Inspect sanding system hoses and sand traps. Repair defects.		
	2. Clean and inspect sander relay valves.		
FUEL PREHEATER	1. Inspect fuel pre-heater valves for proper position. (If equipped).		
AIR COMPRESSOR	1. Change Air and Oil Filters		
	2. Add lubricant as necessary, Use EXXON Teresstic 68		
GENERATOR	1. Clean intake screens		
	2. Clean traction rectifier heat sinks		
	3. Inspect auxiliary generator coupling & rubber bushings.		
ELECTRICAL	1. Check and all high voltage connections and jumpers		
	2. Inspect all electrical devices and insulation for potential problems		
<i>Outbound Running Checks</i>			
CHECK ALL FLUID LEVELS AND CHECK FOR SYSTEM LEAKS	1. Air Compressor		
	2. Engine		
	3. Coolant		
	4. Alternator Gear Box drive		
	5. Hydraulic		
	6. Fuel		
ECM DOWNLOAD	1. Check diagnostics and repair as necessary		
FRA CAB CARD CRAFTSMAN	1. After all applicable items of the card have been inspected and repaired as needed, sign the card legibly using your full name.		

WHEEL & TRUCK REPORT

Locomotive: _____

Employee: _____

Date: _____

	Wheel Thickness (229.75(j))	Flange Height (229.75(h))	Flange Thickness (229.75(f))	Witness Reading (229.73)	Shims Installed (229.73(b))	Pedestal Jaw Wear	Side Bearing Clearance (229.69(b))
L#1							RF
L#2							LF
L#2							RR
L#4							LR
L#5							Wear Limits 1/4" each side 1/2" total
L#6							
R#1							
R#2							
R#3							
R#4							
R#5							
R#6							
Wear Limits	17/16" MIN 16/16" Fed	23/16" MAX 24/16" Fed	15/16" MIN 14/16" Fed	8/16" MIN	8/16" MAX Installed	8/16"	

	Coupler Slack (229.61(a)(2)(4))	Coupler Height (232.2)	Pilot Height (229.123)	Coupler Swing		Condition of Springs (229.65)			
						Front		Rear	
Front						L		L	
Rear						R		R	
Wear Limits	8/16"	31 1/2" 34 1/2"	3" 6"	8"	MIN MAX				

Comments:

Wheel Sets (FRA Part 229.73)

- (229.73(a)) Variation between wheels on the same axle may not exceed 4/16" when applied or turned.
- (229.73(b)) Variation between wheel diameter on the same SD truck may not exceed 12/16" without shims and 20/16" with shims.
- (229.73(b)) Variation between wheel diameters on different SD trucks may not exceed 20/16".

CONVERSION FOR FLANGE HEIGHT		CONVERSION FOR FLANGE WIDTH	
0 - 0 = 17/16	0 - 5 = 21/16	0 - 0 = 20/16	0 - 7 = 16/16
0 - 1 = 18/16	0 - 6 = 22/16	0 - 2 = 19/16	0 - 8 = 15/16
0 - 2 = 19/16	4 - 6 = 23/16	0 - 4 = 18/16	0 - 9 = 14/16
0 - 4 = 20/16	8 - 6 = 24/16	0 - 5 = 17/16	

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LOCOMOTIVE SCHEDULED MAINTENANCE 368-DAY

PROGRESS RAIL SERVICES SCHEDULED MAINTENANCE PROGRAM IS TO BE MATCHED TO THE APPLICABLE FEDERAL SCHEDULED MAINTENANCES AS MANDATED BY THE (FRA, USA) AND (TC-TRANSPORT CANADA) FOR THE 368 FRA OR 365 TC, DAY INSPECTIONS AS PER **PROGRESS RAIL SERVICES** PROCEDURES AND POLICIES.

RAILROAD: _____

LOCOMOTIVE INITIALS & NUMBER: _____

LOCATION WHERE MAINTENANCE WAS PERFORMED: _____

DATE IN SHOP: _____

DATE OUT SHOPPED: _____

TOTAL MAN HOURS SPENT: _____

NAME OF CONTRACTOR PERFORMING THE MAINTENANCE

IF NOT RAILROAD EMPLOYEES:

By signing below I certify that this locomotive is ready for service and meets the railroad's and **PROGRESS RAIL SERVICES'** commitment to quality and reliability. I have reviewed the attached maintenance sheets and forms where blank lined spaces have been provided, to insure that the craftsman completing the task has signed each line legibly and that initials were not substituted for legible signatures.

GENERAL MANAGER, CMO, OR SHOP FOREMAN:

WHEEL MEASUREMENTS OF LOCOMOTIVE MUST BE TAKEN. **PROGRESS RAIL SERVICES FORM 7070** ATTACHED TO THIS WORK ORDER MUST BE USED TO ENSURE WHEELS ON THE LOCOMOTIVE IS IN COMPLIANCE WITH FRA AND TC REGULATIONS.

ENSURE THAT THE LOCOMOTIVE IS PROPERLY SECURED AND BLUE FLAGGED BEFORE PROCEEDING AND THAT ALL PROGRESS RAIL SERVICES SAFETY RULES ARE FOLLOWED EXPLICITLY:

EVENT RECORDER VERIFICATION FORM

LOCOMOTIVE NUMBER: _____

DATE: _____

WHEEL DIAMETER: _____

ITEM TESTED	DESCRIPTION OF ITEMS BEING TESTED	ANALYZED ON DOWNLOAD	COMMENTS
	DIRECTION		
	THROTTLE 1 THROUGH 8 (UNDER A NO LOAD CONDITION)		
	DYNAMIC BRAKE		
	ENGINEER INDUCED EMERGENCY (EIE)		
	PCS CONDITION		
	AUTOMATIC BRAKE		
	INDEPENDENT BRAKE		
	HORN		
	ADDITIONAL ITEMS TO CHECK AFTER DOWNLOADING		
	SPEED		
	DISTANCE		
	TRACTION MOTOR CURRENT		
	CORRECT LOCOMOTIVE NUMBER		
	CORRECT WHEEL SIZE		
	CORRECT RECORDER TIME (MATCH LOCAL TIME)		
	CORRECT DATE		

ENSURE THE DOWNLOAD OF THE EVENT RECORDER HAS BEEN SAVED ON THE LAPTOP USING THE CORRECT LOCOMOTIVE NUMBER AND DATE OF DOWNLOAD.

Retain download for 365 days.

Inbound Running Checks

OPEN TEST COCKS BEFORE STARTING ENGINE

		<i>Worked By:</i>	<i>Notes:</i>
CHECK ALL FLUID LEVELS	1. Air Compressor (obtain sample)		
	2. Engine – Check for significant oil loss and obtain sample		
	3. Coolant –Fill as necessary. Obtain Sample (Level 2) Add “Extender” as necessary. (Expected 3-5 years)		
	4. Observe Oil Level in Alternator Gear Box drive		
	5. Hydraulic Oil – Fill as necessary and obtain sample. (Expected life 3-4 years between changes)		
ECM DOWNLOAD	1. Check diagnostics and repair as necessary		
EVENT RECORDER	1. Verify operation of Event Recorder by using verification program and lap top computer. Print a copy and attach to these maintenance sheets.		
	2. Test alerter / RSC (TC required 90 days).		
SYSTEM LEAKS	1. Check cooling system for leaks. Repair defects.		
	2. Check oil system for leaks. Repair defects.		
	3. Check alternator gear-box for leaks.		
	4. Check exhaust system for leaks. Repair defects.		
	5. Check fuel system for leaks. Repair defects.		
SPEED INDICATOR	1. Verify and set calibration of electronic speed indicator to the measured wheel diameter size. Seal speedometer.		
LOAD METER	1. Inspect and test load meter, renew if defective.		

		<i>Worked</i>	<i>Notes:</i>
		<i>By:</i>	
AIR COMP SETTING	<ol style="list-style-type: none"> 1. Check operation of compressor circuit. Set pick-up at 130 psi, dropout set at 140 psi, if required. 2. Take air compressor oil sample 3. Test Main Reservoir safety pop valve (TC required 180 days) 4. Air compressor orifice test (TC required 180 days) 		
AIR BRAKE	<ol style="list-style-type: none"> 1. Perform standard air brake test per FRA CFR 232.10 		
WINDOWS	<ol style="list-style-type: none"> 1. Check wiper operation, blades, arms, & motors 2. Check windows for cracks 		
TOILET	<ol style="list-style-type: none"> 1. Check and service as necessary 		
TRAINLINE ALARMS	<ol style="list-style-type: none"> 1. Check operation of train line. Alarms. Pin 2 – Alarm Bell Pin 10 – Wheel Slip Light Pin 20 – Brake Warning (Dyn. Eq.) 		
RESISTANCE TEST PRIOR TO WASHING LOCOMOTIVE	<ol style="list-style-type: none"> 1. Megger high voltage circuit on 1000-volt scale and record. _____ Ohms. 2. Megger AC circuit on 500-volt scale and record. _____ Ohms. 3. Test for low voltage grounds using a test light with 30-watt bulb. 		
ENG SPD	<ol style="list-style-type: none"> 1. Check engine speeds (run 1 to 8 no load). 		
ENGINE STARTERS	<ol style="list-style-type: none"> 1. Check Electric starters. With engines off, unplug air pressure sensor behind #1 main reservoir. Use engine select switches on cab electrical locker to turn off 2 engines. Press "ENGINE START" switch and one engine should start using electric starter. Use engine selection switches to turn off the running engine and test the other 2 engines one at a time. 		

		<i>Worked By:</i>	<i>Notes:</i>
DYNAMIC BRAKE TEST	<ol style="list-style-type: none"> 1. With locomotive properly secured, check dynamic braking as follows: <ol style="list-style-type: none"> a. Set up in Dynamic Braking, handle in #1 and note increase in engine speeds. At both front and rear receptacles, check train line pins #17+ and #21+ to #4-, should read 74 volts. Check Train line #24 voltage, should increase as brake handle is moved from #1 to #8. b. Check excitation voltage at GP and GN, should increase as brake handle is moved from #1 to #8. #8 brake handle voltage should read approximately 6 to 8 volts per traction motor. c. Check DBI operation – Set up air brakes with automatic brake valve, then set up Dynamic Brakes (air brakes should release). Return DB handle to the off position (air brakes should set up). 		
GROUND RELAY	<ol style="list-style-type: none"> 1. Verify proper operation of ground relay circuit. 		
FUEL SHUT-DOWN	<ol style="list-style-type: none"> 1. Verify all emergency fuel shutdowns operate. (Jump FPCR A1-A2 with test light to test) 		
CAB HEATERS	<ol style="list-style-type: none"> 1. Check operation of cab heaters. 		
AIR CONDITIONER	<ol style="list-style-type: none"> 1. Check operation of air conditioners if equipped. 		
LIGHTS	<ol style="list-style-type: none"> 1. Check operation of all lights 2. Verify 30 volt 200 watt headlight is used 		
HORN & BELL	<ol style="list-style-type: none"> 1. Check operation 		
FRIDGE/HOT PLATE	<ol style="list-style-type: none"> 1. Verify operation of fridge, hot plate, microwave, etc., repair or replace if defective. 		
T.M. CUT-OUTS	<ol style="list-style-type: none"> 1. Check operation of T.M cutouts, forward and reverse. 		
BATTERIES	<ol style="list-style-type: none"> 1. Check electrolyte level 		

ENGINE SHUTDOWN MAINTENANCE

INSPECTION: Review any defect noted on locomotive inspection FORM 2326 and attach to inspection sheets.

		<i>Worked By:</i>	<i>Notes:</i>
WHEELS	1. Take wheel, truck & coupler measurements and record on wheel report. Form 7070		
	2. Check for skids, flats, gouges, chips, hollows, shells and thermal cracks.		
COUPLER	1. Inspect couplers, yokes, draft gears, cut levers, gauge knuckle and check anti-creep. Repair defects.		
TRACTION MOTOR	1. Replace all brushes.		
	2. Visually inspect brush holders for proper height, bolt tightness and damage. Wipe insulators. Repair defects.		
	3. Inspect commutator for defects.		
	4. Ensure all covers have seals in place, tight, and all bolts applied.		
	5. Inspect TM connector sleeves, clamps, ground wire, air ducts, end bell, and repair defects.		
	6. Clean TM blower intake screens.		
TRUCKS	1. Drain fluid in support bearings inspect wicks and fill with MOBIL 501 .		
	2. Ensure support bearing drain plug, support bearing bolts and support bearing wick bolts are tight and lock wired securely.		
	3. Lubricate center castings if equipped with external lubrication device. USE MOBIL 501 .		
	4. Inspect truck equalizer safety hanger. Cannot be in contact with spring plank (MINIMUM 3/8 INCH CLEARANCE)		
	5. Inspect for broken springs on journal boxes, elliptical springs and bolster springs.		
	6. Inspect crater level or honey lube in gear case. Add as necessary, using appropriate lubricant.		
	7. Drain fluid in journal boxes and re-fill with MOBIL 501		

		<i>Worked</i>	<i>Notes:</i>
		<i>By:</i>	
TRUCKS (Cont.)	8.	Inspect for proper side bearing clearance. (5/32" minimum to 1/4" maximum).	
	9.	Inspect pedestal liners and replace any that are loose, pieces missing or if worn excessively.	
	10.	Examine foundation brake rigging.	
	11.	Inspect brake shoes and change shoes as necessary and adjust piston travel.	
HAND BRAKE	1.	Clean, lubricate and examine handbrake for proper operation and chain length.	
	2.	Stencil the inspection date on the removal cover.	
AIR BRAKE CCB-26	1.	Drain and Replace Filter	
WINDOWS	1.	Check wiper operation, blades, arms, & motors	
	2.	Check windows for cracks	
TOILET	1.	Check and service as necessary	
TRAINLINE ALARMS	1.	Check operation of train line. Alarms. Pin 2 – Alarm Bell Pin 10 – Wheel Slip Light Pin 20 – Brake Warning (Dyn. Eq.)	
RESISTANCE TEST PRIOR TO WASHING LOCOMOTIVE	1.	Megger high voltage circuit on 1000-volt scale and record. _____ Ohms.	
	2.	Megger AC circuit on 500-volt scale and record. _____ Ohms.	
	3.	Test for low voltage grounds using a test light with 30-watt bulb.	
ENG SPD	1.	Check engine speeds (run 1 to 8 no load).	

		<i>Worked</i>	<i>Notes:</i>
		<i>By:</i>	
DYNAMIC BRAKE TEST	<ol style="list-style-type: none"> With locomotive properly secured, check dynamic braking as follows: Set up in Dynamic Braking, handle in #1 and note increase in engine speeds. At both front and rear receptacles, check train line pins #17+ and #21+ to #4-, should read 74 volts. Check Train line #24 voltage, should increase as brake handle is moved from #1 to #8. Check excitation voltage at GP and GN, should increase as brake handle is moved from #1 to #8. #8 brake handle voltage should read approximately 6 to 8 volts per traction motor. Check DBI operation – Set up air brakes with automatic brake valve, then set up Dynamic Brakes (air brakes should release). Return DB handle to the off position (air brakes should set up). 		
GROUND RELAY	<ol style="list-style-type: none"> Verify proper operation of ground relay circuit. 		
FUEL SHUT-DOWN	<ol style="list-style-type: none"> Verify all emergency fuel shutdowns operate. (Jump FPCR A1-A2 with test light to test) 		
CAB HEATERS	<ol style="list-style-type: none"> Check operation of cab heaters. 		
AIR CONDITIONER	<ol style="list-style-type: none"> Check operation of air conditioners if equipped. 		
LIGHTS	<ol style="list-style-type: none"> Check operation of all lights Verify 30 volt 200 watt headlight is used 		
HORN & BELL	<ol style="list-style-type: none"> Check operation 		
FRIDGE/HOT PLATE	<ol style="list-style-type: none"> Verify operation of fridge, hot plate, microwave, etc., repair or replace if defective. 		
T.M. CUT-OUTS	<ol style="list-style-type: none"> Check operation of T.M cutouts, forward and reverse. 		
BATTERIES	<ol style="list-style-type: none"> Check electrolyte level 		

ENGINE SHUTDOWN MAINTENANCE

INSPECTION: Review any defect noted on locomotive inspection FORM 2326 and attach to inspection sheets.

		<i>Worked</i>	<i>Notes:</i>
		<i>By:</i>	
WHEELS	1.	Take wheel, truck & coupler measurements and record on wheel report. Form 7070	
	2.	Check for skids, flats, gouges, chips, hollows, shells and thermal cracks.	
COUPLER	1.	Inspect couplers, yokes, draft gears, cut levers, gauge knuckle and check anti-creep. Repair defects.	
TRACTION MOTOR	1.	Replace all brushes.	
	2.	Visually inspect brush holders for proper height, bolt tightness and damage. Wipe insulators. Repair defects.	
	3.	Inspect commutator for defects.	
	4.	Ensure all covers have seals in place, tight, and all bolts applied.	
	5.	Inspect TM connector sleeves, clamps, ground wire, air ducts, end bell, and repair defects.	
	6.	Clean TM blower intake screens.	
TRUCKS	1.	Drain fluid in support bearings inspect wicks and fill with MOBIL 501 .	
	2.	Ensure support bearing drain plug, support bearing bolts and support bearing wick bolts are tight and lock wired securely.	
	3.	Lubricate center castings if equipped with external lubrication device. USE MOBIL 501 .	
	4.	Inspect truck equalizer safety hanger. Cannot be in contact with spring plank (MINIMUM 3/8 INCH CLEARANCE)	
	5.	Inspect for broken springs on journal boxes, elliptical springs and bolster springs.	
	6.	Inspect crater level or honey lube in gear case. Add as necessary, using appropriate lubricant.	
	7.	Drain fluid in journal boxes and re-fill with MOBIL 501	

		<i>Worked</i>	<i>Notes:</i>
		<i>By:</i>	
TRUCKS (Cont.)	8.	Inspect for proper side bearing clearance. (5/32" minimum to 1/4" maximum).	
	9.	Inspect pedestal liners and replace any that are loose, pieces missing or if worn excessively.	
	10.	Examine foundation brake rigging.	
	11.	Inspect brake shoes and change shoes as necessary and adjust piston travel.	
HAND BRAKE	1.	Clean, lubricate and examine handbrake for proper operation and chain length.	
	2.	Stencil the inspection date on the removal cover.	
AIR BRAKE CCB-26	1.	Drain and Replace Filter	
AXLE ALTERNATOR	1.	Inspect and repair axle generator.	
M.U.	1.	Clean as required.	
PILOT & GANGWAY	1.	Inspect steps, pilot, safety chains, vertical and horizontal handholds, floor treads, folding walkways and handrails. Repair defects.	
FUEL TANK	1.	Inspect mounting bolts and safety hangers. Repair defects.	
	2.	Inspect gauges. Repair defects.	
	3.	Inspect fuel sight glasses. Clean as necessary	
	4.	Drain condensate from fuel tank	
	5.	Replace primary fuel filters	
MAIN RESERVOIR	1.	Renew automatic drain valves if inoperative.	
	2.	Check automatic drain magnet valves. (Replace if not working).	
	3.	Renew dirt filter/collector automatic drain valves if inoperative.	
	4.	Renew safety pop valve	
AIR HOSES	1.	Inspect MU hoses and glad hands.	

		<i>Worked</i>	<i>Notes:</i>
		<i>By:</i>	
MU VALVES	1. Check all MU and train line air c/o valves for defects. Replace as needed.		
SANDING SYSTEM	1. Inspect sanding system hoses and sand traps. Repair defects.		
	2. Clean and inspect sander relay valves.		
WATER SYSTEM	1. Add Coolant Extender – Cat PN 119-5152		
AIR COMPRESSOR	1. Change Air intake filters, oil filters and air/oil separator filters		
	2. Change compressor lube oil and fill with Atlas Copco Air compressor Roto-Xtend.		
ENGINE	1. See that all engine covers are properly applied.		
	2. Change engine lube oil filters.		
	3. Replace fuel filter and prime		
	4. Inspect CCV filter		
	5. Replace both (4 total per module) air filters.		
	6. Inspect after-cooler air ducts for leaks or cracks.		
	7. Inspect after-coolers for leaks.		
	8. Inspect turbocharger and inlet		
	9. Clean power electronics intake screens.		
FUEL PUMP	1. Check for Leaks		
EXHAUST SYSTEM	1. Inspect for loose manifold bolts and exhaust leaks.		
HYDRAULIC SYSTEM	1. Replace both filters		
	2. Replace Hydraulic oil		
RADIATORS	1. Inspect For Leaks		
CARBODY	1. Inspect all hinges, springs, latches, and slide bolts. Lubricate as necessary. Repair defects.		

		<i>Worked</i>	<i>Notes:</i>
		<i>By:</i>	
ELECTRICAL	1.	Inspect starter motor connections for damage and security.	
	2.	Inspect grids for burnt or shorted condition.	
	3.	Inspect dynamic brake and extended range compartments. Repair defects.	
	4.	Check dynamic grid blower brushes for wear. If one brush is worn to the limit change all brushes.	
	5.	Inspect blower motor(s) and fans. Repair defects.	
	6.	Verify fan motor operation on air compressor.	
	7.	Renew cab heater brushes if worn past Mfr. Limit.	
	8.	Inspect power electronics	
	9.	Check and all high voltage connections and jumpers	
	10.	Inspect all electrical devices and insulation for potential problems	
	11.	Verify proper operation of ground fault system	
	12.	Check and all high voltage connections and jumpers	
	13.	Inspect all electrical devices and insulation for potential problems	
AC CABINET	1.	Inspect and repair defects. Look for blown cooling fan fuses and/or single phasing and proper labeling with high voltage warnings.	
	2.	Inspect load regulator for brush wear and visible damage.	
	3.	Inspect D14 terminal board for lead security and proper installation of the terminal board cover with high voltage warning.	
GENERATOR	1.	Grease Alternator Bearings	
	2.	Clean all Air Intake Screens	
	3.	Clean Traction Alternator Heat Sinks	
	4.	Inspect auxiliary generator coupling & rubber bushings.	

		<i>Worked</i>	<i>Notes:</i>
		<i>By:</i>	
CAB	1.	Insure all panels are in place and fit properly.	
	2.	Check control stand operation (locked with reverser handle out, operates with reverser handle in).	
	3.	Inspect telemetry device antenna and power cable for loose connections and damage to cables.	
	4.	Inspect high voltage cabinets. Make visual inspection of electrical switchgear and control equipment. Ensure proper labeling with high voltage warnings. Repair defects.	
	5.	Inspect radio antenna and power cable for loose connections and damage to cables.	
	6.	Inspect cell phone installation for operating condition to include charging and speaker quality	
	7.	Ensure cab and engine room fire extinguishers are within date, properly tagged and sealed. Replace if extinguishers will go out of date by next locomotive inspection.	
	8.	Check for proper operation of cab heater and repair defects.	
	9.	Inspect all cab windows, window slides, wing windows, rear view mirrors, and locks. Repair defects. Repair all cab seats. Verify they are secure.	
	10.	Inspect First Aid Kit. Replace any missing and outdated items.	
	11.	Repair weather stripping around window and door.	
	12.	Check condition of cab cardholder.	
	13.	Inspect sliding cab lock on engineer's door inside. Replace if defective or apply if not already equipped. (NOTE: Apply the slide bolt at an angle as to prevent accidental securement).	
	14.	Inspect and calibrate air brake gauges.	
BATTERIES	1.	Check battery electrolyte level	

Worked **Notes:**
By:

REFLECTIVE SHEETING	1. Retroreflective material must be inspected annually, repaired as required and renewed within 10 years of its original application. Please ensure the application date and inspection date is recorded on the back of the blue card.		
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Outbound Running Checks

CHECK ALL FLUID LEVELS AND CHECK FOR SYSTEM LEAKS	1. Air Compressor Engine Coolant Alternator Gear Box drive Hydraulic Fuel		
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ECM DOWNLOAD	1. Check diagnostics and repair as necessary		
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FRA CAB CARD CRAFTSMAN	1. After all applicable items of the card have been inspected and repaired as needed, sign the card legibly using your full name.		
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WHEEL & TRUCK REPORT

Locomotive: _____

Employee: _____

Date: _____

	Wheel Thickness (229.75(j))	Flange Height (229.75(h))	Flange Thickness (229.75(f))	Witness Reading (229.73)	Shims Installed (229.73(b))	Pedestal Jaw Wear	Side Bearing Clearance (229.69(b))
L#1							RF
L#2							LF
L#2							RR
L#4							LR
L#5							Wear Limits 1/4" each side 1/2" total
L#6							
R#1							
R#2							
R#3							
R#4							
R#5							
R#6							
Wear Limits	17/16" MIN 16/16" Fed	23/16" MAX 24/16" Fed	15/16" MIN 14/16" Fed	8/16" MIN	8/16" MAX Installed	8/16"	

	Coupler Slack (229.61(a)(2)(4))	Coupler Height (232.2)	Pilot Height (229.123)	Coupler Swing	MIN MAX	Condition of Springs (229.65)			
						Front		Rear	
Front						L		L	
Rear						R		R	
Wear Limits	8/16"	31 1/2" 34 1/2"	3" 6"	8"					

Comments:

Wheel Sets (FRA Part 229.73)

- (229.73(a)) Variation between wheels on the same axle may not exceed 4/16" when applied or turned.
- (229.73(b)) Variation between wheel diameter on the same SD truck may not exceed 12/16" without shims and 20/16" with shims.
- (229.73(b)) Variation between wheel diameters on different SD trucks may not exceed 20/16".

CONVERSION FOR FLANGE HEIGHT		CONVERSION FOR FLANGE WIDTH	
0 - 0 = 17/16	0 - 5 = 21/16	0 - 0 = 20/16	0 - 7 = 16/16
0 - 1 = 18/16	0 - 6 = 22/16	0 - 2 = 19/16	0 - 8 = 15/16
0 - 2 = 19/16	4 - 6 = 23/16	0 - 4 = 18/16	0 - 9 = 14/16
0 - 4 = 20/16	8 - 6 = 24/16	0 - 5 = 17/16	

LOCOMOTIVE SCHEDULED MAINTENANCE 1104-DAY

PROGRESS RAIL SERVICES SCHEDULED MAINTENANCE PROGRAM IS TO BE MATCHED TO THE APPLICABLE FEDERAL SCHEDULED MAINTENANCES AS MANDATED BY THE (FRA, USA) AND (TC-TRANSPORT CANADA) FOR THE 1104 FRA OR 1090 TC, DAY INSPECTIONS AS PER **PROGRESS RAIL SERVICES** PROCEDURES AND POLICIES.

RAILROAD: _____

LOCOMOTIVE INITIALS & NUMBER: _____

LOCATION WHERE MAINTENANCE WAS PERFORMED: _____

DATE IN SHOP: _____

DATE OUT SHOPPED: _____

TOTAL MAN HOURS SPENT: _____

NAME OF CONTRACTOR PERFORMING THE MAINTENANCE

IF NOT RAILROAD EMPLOYEES:

By signing below I certify that this locomotive is ready for service and meets the railroad's and PROGRESS RAIL SERVICES' commitment to quality and reliability. I have reviewed the attached maintenance sheets and forms where blank lined spaces have been provided, to insure that the craftsman completing the task has signed each line legibly and that initials were not substituted for legible signatures.

GENERAL MANAGER, CMO, OR SHOP FOREMAN:

WHEEL MEASUREMENTS OF LOCOMOTIVE MUST BE TAKEN. PROGRESS RAIL SERVICES FORM 7070 ATTACHED TO THIS WORK ORDER MUST BE USED TO ENSURE WHEELS ON THE LOCOMOTIVE IS IN COMPLIANCE WITH FRA AND TC REGULATIONS.

ENSURE THAT THE LOCOMOTIVE IS PROPERLY SECURED AND BLUE FLAGGED BEFORE PROCEEDING AND THAT ALL PROGRESS RAIL SERVICES SAFETY RULES ARE FOLLOWED EXPLICITLY:

EVENT RECORDER VERIFICATION FORM

LOCOMOTIVE NUMBER: _____

DATE: _____

WHEEL DIAMETER: _____

ITEM TESTED	DESCRIPTION OF ITEMS BEING TESTED	ANALYZED ON DOWNLOAD	COMMENTS
	DIRECTION		
	THROTTLE 1 THROUGH 8 (UNDER A NO LOAD CONDITION)		
	DYNAMIC BRAKE		
	ENGINEER INDUCED EMERGENCY (EIE)		
	PCS CONDITION		
	AUTOMATIC BRAKE		
	INDEPENDENT BRAKE		
	HORN		
	ADDITIONAL ITEMS TO CHECK AFTER DOWNLOADING		
	SPEED		
	DISTANCE		
	TRACTION MOTOR CURRENT		
	CORRECT LOCOMOTIVE NUMBER		
	CORRECT WHEEL SIZE		
	CORRECT RECORDER TIME (MATCH LOCAL TIME)		
	CORRECT DATE		

ENSURE THE DOWNLOAD OF THE EVENT RECORDER HAS BEEN SAVED ON THE LAPTOP USING THE CORRECT LOCOMOTIVE NUMBER AND DATE OF DOWNLOAD.

Retain down load for 365 days.

Inbound Running Checks

OPEN TEST COCKS BEFORE STARTING ENGINE

		<i>Worked</i>	<i>Notes:</i>
		<i>By:</i>	
CHECK ALL FLUID LEVELS	1. Engine – Check for significant oil loss and obtain sample		
	2. Coolant –Fill as necessary. Obtain Sample (Level 2) and add Extender as necessary.		
	3. Observe Oil Level in Alternator Gear Box drive		
	4. Hydraulic Oil – Fill as necessary and obtain sample. (Expected life 3-4 years between changes)		
ECM DOWNLOAD	1. Check diagnostics and repair as necessary		
EVENT RECORDER	1. Verify operation of Event Recorder by using verification program and lap top computer. Print a copy and attach to these maintenance sheets.		
	2. Test alerter / RSC (TC required 90 days).		
SYSTEM LEAKS	1. Check cooling system for leaks. Repair defects.		
	2. Check oil system for leaks. Repair defects		
	3. Inspect Alternator Gear Box for leaks		
	4. Check exhaust system for leaks. Repair defects.		
	5. Check fuel system for leaks. Repair defects.		
SPEED INDICATOR	1. Verify and set calibration of electronic speed indicator to the measured wheel diameter size. Seal speedometer.		
LOAD METER	1. Inspect and test load meter, renew if defective.		
AIR COMP SETTING	1. Check operation of compressor circuit. Set pick-up at 130 psi, dropout set at 140 psi, if required.		
	Take air compressor oil sample.		
	Test Main Reservoir safety pop valve (TC required 180 days).		
	Air compressor orifice test (TC required 180 days)		
AIR BRAKE	1. Perform standard air brake test per FRA CFR 232.10		

		<i>Worked</i>	<i>Notes:</i>
		<i>By:</i>	
WINDOWS	<ol style="list-style-type: none"> 1. Check wiper operation, blades, arms, & motors. 2. Check windows for cracks 		
TOILET	<ol style="list-style-type: none"> 1. Check and service as necessary 		
TRAINLINE ALARMS	<ol style="list-style-type: none"> 1. Check operation of train line. Alarms. Pin 2 – Alarm Bell Pin 10 – Wheel Slip Light Pin 20 – Brake Warning (Dyn. Eq.) 		
RESISTANCE TEST PRIOR TO WASHING LOCOMOTIVE	<ol style="list-style-type: none"> 1. Megger high voltage circuit on 1000-volt scale and record. _____ Ohms. 2. Megger AC circuit on 500-volt scale and record. _____ Ohms. 3. Test for low voltage grounds using a test light with 30-watt bulb. 		
ENG SPD	<ol style="list-style-type: none"> 1. Check engine speeds (run 1 to 8 no load). 		
DYNAMIC BRAKE TEST	<ol style="list-style-type: none"> 1. With locomotive properly secured, check dynamic braking as follows: Set up in Dynamic Braking, handle in #1 and note increase in engine speeds. At both front and rear receptacles, check train line pins #17+ and #21+ to #4-, should read 74 volts. Check Train line #24 voltage, should increase as brake handle is moved from #1 to #8. Check excitation voltage at GP and GN, should increase as brake handle is moved from #1 to #8. #8 brake handle voltage should read approximately 6 to 8 volts per traction motor. Check DBI operation – Set up air brakes with automatic brake valve, then set up Dynamic Brakes (air brakes should release). Return DB handle to the off position (air brakes should set up). 		
GROUND RELAY	<ol style="list-style-type: none"> 1. Verify proper operation of ground relay circuit. 		
FUEL SHUT-DOWN	<ol style="list-style-type: none"> 1. Verify all emergency fuel shutdowns operate. (Jump FPCR A1-A2 with test light to test) 		
CAB HEATERS	<ol style="list-style-type: none"> 1. Check Operation of cab heaters. 		

		<i>Worked</i>	<i>Notes:</i>
		<i>By:</i>	
LIGHTS	1. Check operation of all lights.		
HORN & BELL	1. Check operation		
FRIDGE/HOT PLATE	1. Verify operation of Fridge, hot plate, microwave, etc., repair or replace if defective.		
T.M. CUT-OUTS	1. Check operation of T.M cutouts, forward and reverse.		
BATTERIES	1. Check electrolyte level		

ENGINE SHUTDOWN MAINTENANCE

INSPECTION: Review any defect noted on locomotive inspection FORM 2326 and attach to inspection sheets.

AIR CONDITIONER	1. Check operation of air conditioners if equipped.		
WHEELS	1. Take wheel, truck & coupler measurements and record on wheel report. Form 7070		
	2. Check for skids, flats, gouges, chips, hollows, shells and thermal cracks.		
TRACTION MOTOR	1. Replace all brushes		
	2. Visually inspect brush holders for proper height, bolt tightness and damage. Wipe insulators. Repair defects.		
	3. Inspect commutator for defects.		
	4. Ensure all covers have seals in place, tight, and all bolts applied.		
	5. Inspect TM connector sleeves, clamps, ground wire, air ducts, end bell, and repair defects.		
	6. Clean TM blower intake screens.		
TRUCKS	1. Drain fluid in support bearings inspect wicks and fill with MOBIL 501.		
	2. Ensure support bearing drain plug, support bearing bolts and support bearing wick bolts are tight and lock wired securely.		
	3. Lubricate center castings if equipped with external lubrication device. USE MOBIL 501.		

		<i>Worked</i>	<i>Notes:</i>	
		<i>By:</i>		
TRUCKS (Cont.)	4.	Inspect truck equalizer safety hanger. Cannot be in contact with spring plank (MINIMUM 3/8 INCH CLEARANCE)		
	5.	Inspect for broken springs on journal boxes, elliptical springs and bolster springs.		
	6.	Inspect crater level or honey lube in gear case. Add as necessary, using appropriate lubricant.		
	7.	Drain fluid in journal boxes and re-fill with MOBIL 501		
	8.	Inspect for proper side bearing clearance. (5/32" minimum to 1/4" maximum).		
	9.	Inspect pedestal liners and replace any that are loose, pieces missing or if worn excessively.		
	10.	Examine foundation brake rigging.		
	11.	Inspect brake shoes and change shoes as necessary and adjust piston travel.		
	HAND BRAKE	1.	Clean, lubricate and examine handbrake for proper operation and chain length.	
		2.	Stencil the inspection date on the removal cover.	
	AIR BRAKE CCB-26	1.	Drain and Replace Filter	
2.		Unit Rebuild		
3.		Verify calibration		
AXLE ALTERNATOR	1.	Inspect and repair axle generator.		
M.U.	1.	Clean as required.		
PILOT & GANGWAY	1.	Inspect steps, pilot, safety chains, vertical and horizontal handholds, floor treads, folding walkways and handrails. Repair defects.		
FUEL TANK	1.	Inspect mounting bolts and safety hangers. Repair defects.		
	2.	Inspect gauges. Repair defects.		
	3.	Inspect fuel sight glasses. Clean as necessary		
	4.	Drain condensate from fuel tank		
	5.	Replace primary fuel filters		

		<i>Worked</i>	<i>Notes:</i>
		<i>By:</i>	
MAIN RESERVOIR	1. Renew automatic drain valves if inoperative.		
	2. Check automatic drain magnet valves. (Replace if not working).		
	3. Renew dirt filter/collector automatic drain valves if inoperative.		
	4. Renew safety pop valve		
AIR HOSES	1. Inspect MU hoses and glad hands.		
MU VALVES	1. Check all MU and train line air c/o valves for defects. Replace as needed.		
SANDING SYSTEM	1. Inspect sanding system hoses and sand traps. Repair defects.		
	2. Clean and inspect sander relay valves.		
WATER SYSTEM	1. Add Coolant Extender – Cat PN 119-5152		
AIR COMPRESSOR	1. Unit Rebuild		
ENGINE	1. See that all engine covers are properly applied.		
	2. Change engine lube oil filters.		
	3. Replace fuel filter		
	4. Inspect CCV Filter		
	5. Replace both (4 total per module) air filters.		
	6. Inspect after-cooler air ducts for leaks or cracks.		
	7. Inspect after-coolers for leaks. (Test per Cat???)		
	8. Inspect turbocharger and inlet		
	9. Valve Lash Adjustment		
FUEL PUMP	1. Inspect for leaks.		
EXHAUST SYSTEM	1. Inspect for loose manifold bolts and exhaust leaks.		
HYDRAULIC SYSTEM	1. Replace both filters		
	2. Replace oil with DEO		

		<i>Worked</i>	<i>Notes:</i>
		<i>By:</i>	
RADIATORS	1. Inspect For Leaks		
CARBODY	1. Inspect all hinges, springs, latches, and slide bolts. Lubricate as necessary. Repair defects.		
ELECTRICAL	1. Inspect starter motor connections for damage and security.		
	2. Inspect grids for burnt or shorted condition.		
	3. Inspect dynamic brake and extended range compartments. Repair defects.		
	4. Check dynamic grid blower brushes for wear. If one brush is worn to the limit change all brushes.		
	5. Inspect blower motor(s) and fans. Repair defects.		
	6. Verify fan motor operation on air compressor.		
	7. Renew cab heater brushes if worn past Mfr. Limit.		
	8. Inspect power electronics.		
	9. Check and all high voltage connections and jumpers		
	10. Inspect all electrical devices and insulation for potential problems		
	11. Verify proper operation of ground fault system		
	12. Check and all high voltage connections and jumpers		
	13. Inspect all electrical devices and insulation for potential problems		
AC CABINET	1. Inspect and repair defects. Look for blown cooling fan fuses and/or single phasing and proper labeling with high voltage warnings.		
	2. Inspect load regulator for brush wear and visible damage.		
	3. Inspect D14 terminal board for lead security and proper installation of the terminal board cover with high voltage warning.		
GENERATOR	1. Grease Alternator Bearings		
	2. Clean all Air Intake Screens		
	3. Clean Traction Alternator Heat Sinks		
	4. Replace Coupler Elastomers		
	5. Companion Service		

		<i>Worked</i>	<i>Notes:</i>
		<i>By:</i>	
CAB	1.	Insure all panels are in place and fit properly.	
	2.	Check control stand operation (locked with reverser handle out, operates with reverser handle in).	
	3.	Inspect telemetry device antenna and power cable for loose connections and damage to cables.	
	4.	Inspect high voltage cabinets. Make visual inspection of electrical switchgear and control equipment. Ensure proper labeling with high voltage warnings. Repair defects.	
	5.	Inspect radio antenna and power cable for loose connections and damage to cables.	
	6.	Inspect cell phone installation for operating condition to include charging and speaker quality	
	7.	Ensure cab and engine room fire extinguishers are within date, properly tagged and sealed. Replace if extinguishers will go out of date by next locomotive inspection.	
	8.	Check for proper operation of cab heater and repair defects.	
	9.	Inspect all cab windows, window slides, wing windows, rear view mirrors, and locks. Repair defects. Repair all cab seats. Verify they are secure.	
	10.	Inspect First Aid Kit. Replace any missing and outdated items.	
	11.	Repair weather stripping around window and door.	
	12.	Check condition of cab cardholder.	
	13.	Inspect sliding cab lock on engineer's door inside. Replace if defective or apply if not already equipped. (NOTE: Apply the slide bolt at an angle as to prevent accidental securement).	
	14.	Inspect and calibrate air brake gauges.	
BATTERIES	1.	Check battery electrolyte level	
REFLECTIVE SHEETING	1.	Retroreflective material must be inspected annually, repaired as required and renewed within 10 years of its original application. Please ensure the application date and inspection date is recorded on the back of the blue card.	

Outbound Running Checks

		<i>Worked</i>	<i>Notes:</i>
		<i>By:</i>	
CHECK ALL FLUID LEVELS AND CHECK FOR SYSTEM LEAKS	1. Air Compressor		
	2. Engine		
	3. Coolant		
	4. Alternator Gear Box drive		
	5. Hydraulic		
	6. Fuel		
ECM DOWNLOAD	1. Check diagnostics and repair as necessary		
FRA CAB CARD CRAFTSMAN	1. After all applicable items of the card have been inspected and repaired as needed, sign the card legibly using your full name.		

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LOCOMOTIVE SCHEDULED MAINTENANCE 1840-DAY

PROGRESS RAIL SERVICES SCHEDULED MAINTENANCE PROGRAM IS TO BE MATCHED TO THE APPLICABLE FEDERAL SCHEDULED MAINTENANCES AS MANDATED BY THE (FRA, USA) AND (TC-TRANSPORT CANADA) FOR THE 1840 FRA OR 1840 TC, DAY INSPECTIONS AS PER **PROGRESS RAIL SERVICES** PROCEDURES AND POLICIES.

RAILROAD: _____

LOCOMOTIVE INITIALS & NUMBER: _____

LOCATION WHERE MAINTENANCE WAS PERFORMED: _____

DATE IN SHOP: _____

DATE OUT SHOPPED: _____

TOTAL MAN HOURS SPENT: _____

NAME OF CONTRACTOR PERFORMING THE MAINTENANCE

IF NOT RAILROAD EMPLOYEES:

By signing below I certify that this locomotive is ready for service and meets the railroad's and PROGRESS RAIL SERVICES' commitment to quality and reliability. I have reviewed the attached maintenance sheets and forms where blank lined spaces have been provided, to insure that the craftsman completing the task has signed each line legibly and that initials were not substituted for legible signatures.

GENERAL MANAGER, CMO, OR SHOP FOREMAN:

WHEEL MEASUREMENTS OF LOCOMOTIVE MUST BE TAKEN. PROGRESS RAIL SERVICES FORM 7070 ATTACHED TO THIS WORK ORDER MUST BE USED TO ENSURE WHEELS ON THE LOCOMOTIVE IS IN COMPLIANCE WITH FRA AND TC REGULATIONS.

ENSURE THAT THE LOCOMOTIVE IS PROPERLY SECURED AND BLUE FLAGGED BEFORE PROCEEDING AND THAT ALL PROGRESS RAIL SERVICES SAFETY RULES ARE FOLLOWED EXPLICITLY:

EVENT RECORDER VERIFICATION FORM

LOCOMOTIVE NUMBER: _____

DATE: _____

WHEEL DIAMETER: _____

ITEM TESTED	DESCRIPTION OF ITEMS BEING TESTED	ANALYZED ON DOWNLOAD	COMMENTS
	DIRECTION		
	THROTTLE 1 THROUGH 8 (UNDER A NO LOAD CONDITION)		
	DYNAMIC BRAKE		
	ENGINEER INDUCED EMERGENCY (EIE)		
	PCS CONDITION		
	AUTOMATIC BRAKE		
	INDEPENDENT BRAKE		
	HORN		
	ADDITIONAL ITEMS TO CHECK AFTER DOWNLOADING		
	SPEED		
	DISTANCE		
	TRACTION MOTOR CURRENT		
	CORRECT LOCOMOTIVE NUMBER		
	CORRECT WHEEL SIZE		
	CORRECT RECORDER TIME (MATCH LOCAL TIME)		
	CORRECT DATE		

ENSURE THE DOWNLOAD OF THE EVENT RECORDER HAS BEEN SAVED ON THE LAPTOP USING THE CORRECT LOCOMOTIVE NUMBER AND DATE OF DOWNLOAD.

Retain down load for 365 days.

DESCRIPTION OF DISCREPANCY – REPAIRS NEEDED		CORRECTIVE ACTION TAKEN	MADE BY (Initial)

Inbound Running Checks

OPEN TEST COCKS BEFORE STARTING ENGINE

		<i>Worked</i>	<i>Notes:</i>
		<i>By:</i>	
CHECK ALL FLUID LEVELS	1. Engine – Check for significant oil loss and obtain sample		
	2. Coolant –Fill as necessary. Obtain Sample (Level 2) and add Extender as necessary.		
	3. Observe Oil Level in Alternator Gear Box drive		
	4. Hydraulic Oil – Fill as necessary and obtain sample. (Expected life 3-4 years between changes)		
ECM DOWNLOAD	1. Check diagnostics and repair as necessary		
EVENT RECORDER	1. Verify operation of Event Recorder by using verification program and lap top computer. Print a copy and attach to these maintenance sheets.		
	2. Test alerter / RSC (TC required 90 days).		
SYSTEM LEAKS	1. Check cooling system for leaks. Repair defects.		
	2. Check oil system for leaks. Repair defects		
	3. Inspect Alternator Gear Box for leaks		
	4. Check exhaust system for leaks. Repair defects.		
	5. Check fuel system for leaks. Repair defects.		
SPEED INDICATOR	1. Verify and set calibration of electronic speed indicator to the measured wheel diameter size. Seal speedometer.		
LOAD METER	1. Inspect and test load meter, renew if defective.		
AIR COMP SETTING	1. Check operation of compressor circuit. Set pick-up at 130 psi, dropout set at 140 psi, if required.		
	Take air compressor oil sample.		
	Test Main Reservoir safety pop valve (TC required 180 days).		
	Air compressor orifice test (TC required 180 days)		
AIR BRAKE	1. Perform standard air brake test per FRA CFR 232.10		

		<i>Worked</i>	<i>Notes:</i>
		<i>By:</i>	
WINDOWS	<ol style="list-style-type: none"> 1. Check wiper operation, blades, arms, & motors. 2. Check windows for cracks 		
TOILET	<ol style="list-style-type: none"> 1. Check and service as necessary 		
TRAINLINE ALARMS	<ol style="list-style-type: none"> 1. Check operation of train line. Alarms. Pin 2 – Alarm Bell Pin 10 – Wheel Slip Light Pin 20 – Brake Warning (Dyn. Eq.) 		
RESISTANCE TEST PRIOR TO WASHING LOCOMOTIVE	<ol style="list-style-type: none"> 1. Megger high voltage circuit on 1000-volt scale and record. _____ Ohms. 2. Megger AC circuit on 500-volt scale and record. _____ Ohms. 3. Test for low voltage grounds using a test light with 30-watt bulb. 		
ENG SPD	<ol style="list-style-type: none"> 1. Check engine speeds (run 1 to 8 no load). 		
DYNAMIC BRAKE TEST	<ol style="list-style-type: none"> 1. With locomotive properly secured, check dynamic braking as follows: Set up in Dynamic Braking, handle in #1 and note increase in engine speeds. At both front and rear receptacles, check train line pins #17+ and #21+ to #4-, should read 74 volts. Check Train line #24 voltage, should increase as brake handle is moved from #1 to #8. Check excitation voltage at GP and GN, should increase as brake handle is moved from #1 to #8. #8 brake handle voltage should read approximately 6 to 8 volts per traction motor. Check DBI operation – Set up air brakes with automatic brake valve, then set up Dynamic Brakes (air brakes should release). Return DB handle to the off position (air brakes should set up). 		
GROUND RELAY	<ol style="list-style-type: none"> 1. Verify proper operation of ground relay circuit. 		
FUEL SHUT-DOWN	<ol style="list-style-type: none"> 1. Verify all emergency fuel shutdowns operate. (Jump FPCR A1-A2 with test light to test) 		
CAB HEATERS	<ol style="list-style-type: none"> 1. Check Operation of cab heaters. 		

		<i>Worked</i>	<i>Notes:</i>
		<i>By:</i>	
LIGHTS	1. Check operation of all lights.		
HORN & BELL	1. Check operation		
FRIDGE/HOT PLATE	1. Verify operation of Fridge, hot plate, microwave, etc., repair or replace if defective.		
T.M. CUT-OUTS	1. Check operation of T.M cutouts, forward and reverse.		
BATTERIES	1. Check electrolyte level		

ENGINE SHUTDOWN MAINTENANCE

INSPECTION: Review any defect noted on locomotive inspection FORM 2326 and attach to inspection sheets.

AIR CONDITIONER	1. Check operation of air conditioners if equipped.		
WHEELS	1. Take wheel, truck & coupler measurements and record on wheel report. Form 7070		
	2. Check for skids, flats, gouges, chips, hollows, shells and thermal cracks.		
TRACTION MOTOR	1. Replace all brushes		
	2. Visually inspect brush holders for proper height, bolt tightness and damage. Wipe insulators. Repair defects.		
	3. Inspect commutator for defects.		
	4. Ensure all covers have seals in place, tight, and all bolts applied.		
	5. Inspect TM connector sleeves, clamps, ground wire, air ducts, end bell, and repair defects.		
	6. Clean TM blower intake screens.		
TRUCKS	1. Drain fluid in support bearings inspect wicks and fill with MOBIL 501.		
	2. Ensure support bearing drain plug, support bearing bolts and support bearing wick bolts are tight and lock wired securely.		
	3. Lubricate center castings if equipped with external lubrication device. USE MOBIL 501.		

Worked Notes:
By:

TRUCKS (Cont.)	4.	Inspect truck equalizer safety hanger. Cannot be in contact with spring plank (MINIMUM 3/8 INCH CLEARANCE)			
	5.	Inspect for broken springs on journal boxes, elliptical springs and bolster springs.			
	6.	Inspect crater level or honey lube in gear case. Add as necessary, using appropriate lubricant.			
	7.	Drain fluid in journal boxes and re-fill with MOBIL 501			
	8.	Inspect for proper side bearing clearance. (5/32" minimum to 1/4" maximum).			
	9.	Inspect pedestal liners and replace any that are loose, pieces missing or if worn excessively.			
	10.	Examine foundation brake rigging.			
	11.	Inspect brake shoes and change shoes as necessary and adjust piston travel.			
	HAND BRAKE	1.	Clean, lubricate and examine handbrake for proper operation and chain length.		
		2.	Stencil the inspection date on the removal cover.		
	AIR BRAKE CCB-26	1.	Drain and Replace Filter		
2.		Unit Rebuild			
3.		Verify calibration			
AXLE ALTERNATOR	1.	Inspect and repair axle generator.			
M.U.	1.	Clean as required.			
PILOT & GANGWAY	1.	Inspect steps, pilot, safety chains, vertical and horizontal handholds, floor treads, folding walkways and handrails. Repair defects.			
FUEL TANK	1.	Inspect mounting bolts and safety hangers. Repair defects.			
	2.	Inspect gauges. Repair defects.			
	3.	Inspect fuel sight glasses. Clean as necessary			
	4.	Drain condensate from fuel tank			
	5.	Replace primary fuel filters			

		<i>Worked</i>	<i>Notes:</i>
		<i>By:</i>	
MAIN RESERVOIR	1.	Renew automatic drain valves if inoperative.	
	2.	Check automatic drain magnet valves. (Replace if not working).	
	3.	Renew dirt filter/collector automatic drain valves if inoperative.	
	4.	Renew safety pop valve	
AIR HOSES	1.	Inspect MU hoses and glad hands.	
MU VALVES	1.	Check all MU and train line air c/o valves for defects. Replace as needed.	
SANDING SYSTEM	1.	Inspect sanding system hoses and sand traps. Repair defects.	
	2.	Clean and inspect sander relay valves.	
WATER SYSTEM	1.	Add Coolant Extender – Cat PN 119-5152	
AIR COMPRESSOR	1.	Unit Rebuild	
ENGINE	1.	See that all engine covers are properly applied.	
	2.	Change engine lube oil filters.	
	3.	Replace fuel filter	
	4.	Inspect CCV Filter	
	5.	Replace both (4 total per module) air filters.	
	6.	Inspect after-cooler air ducts for leaks or cracks.	
	7.	Inspect after-coolers for leaks. (Test per Cat???)	
	8.	Inspect turbocharger and inlet	
	9.	Valve Lash Adjustment	
FUEL PUMP	1.	Inspect for leaks.	
EXHAUST SYSTEM	1.	Inspect for loose manifold bolts and exhaust leaks.	
HYDRAULIC SYSTEM	1.	Replace both filters	
	2.	Replace oil with DEO	

		<i>Worked</i>	<i>Notes:</i>
		<i>By:</i>	
RADIATORS	1. Inspect For Leaks		
CARBODY	1. Inspect all hinges, springs, latches, and slide bolts. Lubricate as necessary. Repair defects.		
ELECTRICAL	1. Inspect starter motor connections for damage and security.		
	2. Inspect grids for burnt or shorted condition.		
	3. Inspect dynamic brake and extended range compartments. Repair defects.		
	4. Check dynamic grid blower brushes for wear. If one brush is worn to the limit change all brushes.		
	5. Inspect blower motor(s) and fans. Repair defects.		
	6. Verify fan motor operation on air compressor.		
	7. Renew cab heater brushes if worn past Mfr. Limit.		
	8. Inspect power electronics.		
	9. Check and all high voltage connections and jumpers		
	10. Inspect all electrical devices and insulation for potential problems		
	11. Verify proper operation of ground fault system		
	12. Check and all high voltage connections and jumpers		
	13. Inspect all electrical devices and insulation for potential problems		
AC CABINET	1. Inspect and repair defects. Look for blown cooling fan fuses and/or single phasing and proper labeling with high voltage warnings.		
	2. Inspect load regulator for brush wear and visible damage.		
	3. Inspect D14 terminal board for lead security and proper installation of the terminal board cover with high voltage warning.		
GENERATOR	1. Grease Alternator Bearings		
	2. Clean all Air Intake Screens		
	3. Clean Traction Alternator Heat Sinks		
	4. Replace Coupler Elastomers		
	5. Companion Service		

Worked Notes:
By:

CAB	1.	Insure all panels are in place and fit properly.		
	2.	Check control stand operation (locked with reverser handle out, operates with reverser handle in).		
	3.	Inspect telemetry device antenna and power cable for loose connections and damage to cables.		
	4.	Inspect high voltage cabinets. Make visual inspection of electrical switchgear and control equipment. Ensure proper labeling with high voltage warnings. Repair defects.		
	5.	Inspect radio antenna and power cable for loose connections and damage to cables.		
	6.	Inspect cell phone installation for operating condition to include charging and speaker quality		
	7.	Ensure cab and engine room fire extinguishers are within date, properly tagged and sealed. Replace if extinguishers will go out of date by next locomotive inspection.		
	8.	Check for proper operation of cab heater and repair defects.		
	9.	Inspect all cab windows, window slides, wing windows, rear view mirrors, and locks. Repair defects. Repair all cab seats. Verify they are secure.		
	10.	Inspect First Aid Kit. Replace any missing and outdated items.		
	11.	Repair weather stripping around window and door.		
	12.	Check condition of cab cardholder.		
	13.	Inspect sliding cab lock on engineer's door inside. Replace if defective or apply if not already equipped. (NOTE: Apply the slide bolt at an angle as to prevent accidental securement).		
	14.	Inspect and calibrate air brake gauges.		
BATTERIES	1.	Check battery electrolyte level		
REFLECTIVE SHEETING	1.	Retroreflective material must be inspected annually, repaired as required and renewed within 10 years of its original application. Please ensure the application date and inspection date is recorded on the back of the blue card.		

Outbound Running Checks

		<i>Worked</i>	<i>Notes:</i>
		<i>By:</i>	
CHECK ALL FLUID LEVELS AND CHECK FOR SYSTEM LEAKS	1. Air Compressor		
	2. Engine		
	3. Coolant		
	4. Alternator Gear Box drive		
	5. Hydraulic		
	6. Fuel		
ECM DOWNLOAD	1. Check diagnostics and repair as necessary		
FRA CAB CARD CRAFTSMAN	1. After all applicable items of the card have been inspected and repaired as needed, sign the card legibly using your full name.		

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FILTER PARTS LIST

The following parts list is a ten year repeating list.

There are 2 sections on pages 59, 60, and 61:

“PR43C 1 year to 5 year” repeating schedule.

	A	B	C	E	F	G	H	I	J	K	L	M	N
1	PR43C 1 year to 5 year (repeating schedule)	Last Updated:	4/28/2010	Day Maint	1st Annual Maint	Day Maint	2nd Annual Maint	Day Maint	3rd Annual Maint	Day Maint	4th Annual Maint	Day Maint	5th Annual Maint
2	Maintenance Schedule			184	368	184	736	184	1104	184	1472	184	1840
3	Order Kit - Part #			TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
4	Order Supplement - Part #						TBD		TBD		TBD		TBD
6	Description of Kit Contents	Part Number	Required	Quantity of Parts in Each Kit									
7	C18 Module												
8	CCV Canister Filter (OCV)	274-7913	X	1	1	1	1	1	1	1	1	1	1
9	Oil Filter - engine	1R-1808	X	2	2	2	2	2	2	2	2	2	2
10	Fuel Filter - Tertiary	1R-0755	X	2	2	2	2	2	2	2	2	2	2
11	Fuel Filter - Secondary	1R-0755	X	2	2	2	2	2	2	2	2	2	2
12	Fuel Filter - Primary (Not Separ)	316-9954	X	2	2	2	2	2	2	2	2	2	2
13	Air filter element - engine (primary)	290-1935	X		2		2		2		2		2
14	Air filter element - engine (secondary)	290-1936	X										S
15	Sample Bottles (coolant only)	169-7372	X	1	1	1	1	1	1	1	1	1	1
16	Reference Volumes												
17	Diesel Engine Oil - DEO ULS API CJ-4, CI-4, SAE 15W-40 (Bulk Oil 55 gal) 185 L = 49 Gal	291-3869	X - not in kit *	X	X	X	X	X	X	X	X	X	X
18	Antifreeze/Glycol ELC - Extended Life Coolant (Bulk 55 Gal 50/50 mix) 57 L = 15 Gal	101-2845	S - not in kit *										15 Gal
19	Extended Life Coolant (ELC) Extender - Qty 1 Quart	119-5152	S - not in kit *						1 Quart				
20	C175 Module												
21	Filter Element - Air (primary)	269-7041	X		4		4		4		4		4
22	Filter Element - Air (secondary)	281-7246	S										4
23	Fuel Filter - Tertiary	1R-0755	X	2	2	2	2	2	2	2	2	2	2
24	Fuel Filter - Secondary	1R-0755	X	4	4	4	4	4	4	4	4	4	4
25	Fuel Filter - Primary (Not Separ)	316-9954	X	4	4	4	4	4	4	4	4	4	4
26	Oil Filter - engine	249-2340	X	3	3	3	3	3	3	3	3	3	3
27	Oil Filter - engine	295-4343	X	1	1	1	1	1	1	1	1	1	1
28	Sample Bottles (coolant only - SCAC & JWAC)	169-7372	X	2	2	2	2	2	2	2	2	2	2

PR43C
FILTER PARTS LIST

	A	B	C	E	F	G	H	I	J	K	L	M	N
1	PR43C 1 year to 5 year (repeating schedule)	Last Updated: 4/28/2010		Day Maint	1st Annual Maint	Day Maint	2nd Annual Maint	Day Maint	3rd Annual Maint	Day Maint	4th Annual Maint	Day Maint	5th Annual Maint
2	Maintenance Schedule			184	368	184	736	184	1104	184	1472	184	1840
3	Order Kit - Part #			TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
4	Order Supplement - Part #						TBD		TBD		TBD		TBD
6	Description of Kit Contents	Part Number	Required	Quantity of Parts in Each Kit									
29	Reference Volumes												
30	Diesel Engine Oil - DEO ULS API CJ-4, CI-4, SAE 15W-40 (Bulk Oil 55 Gal) 946L = 250 Gal	291-3869	X - not in kit *	250 Gal	250 Gal	250 Gal	250 Gal	250 Gal	250 Gal	250 Gal	250 Gal	250 Gal	250 Gal
31	Antifreeze/Glycol ELC - Extended Life Coolant (Bulk 55 Gal 50/50 mix) JWAC 478L = 126 Gal	101-2845	S - not in kit *										126 Gal
32	Antifreeze/Glycol ELC - Extended Life Coolant (Bulk 55 Gal 50/50 mix) SCAC 315L = 83 Gal	101-2845	S - not in kit *										83 Gal
33	Extended Life Coolant (ELC) Extender - Qty 1 Gal JWAC (Add 2 Gal s)	210-0786	S - not in kit *						2 Gal				
34	Extended Life Coolant (ELC) Extender - Qty 1 Gal SCAC (Add 5 Quarts)	210-0786	S - not in kit *						5 Quarts				
35	Extended Life Coolant (ELC) Extender - Qty 1 Quart SCAC	119-5152	S - not in kit *						1 Quart				
36	Air Compressor												
37	Air Compressor Oil (Roto-Xtend Duty Fluid 5 liter container)	2901 1700 00	S				2				2		
38	Air Compressor Air Filter	1613 9215 00	X		1		1		1		1		1
39	Air Compressor Oil Filter	1613 6105 90	X		1		1		1		1		1
40	Air Compressor o-ring	0663 2102 15	X		1		1		1		1		1
41	Air Compressor Oil Separator Kit	2901 0343 01	S				1				1		
42	Air Compressor min. pressure valve kit - Qty 1	2901 0006 00	S				1				1		
43	Sample Bottles 1 for air compressor	169-7372	X	1	1	1	1	1	1	1	1	1	1

PR43C
FILTER PARTS LIST

	A	B	C	E	F	G	H	I	J	K	L	M	N
1	PR43C 1 year to 5 year (repeating schedule)	Last Updated:	4/28/2010	Day Maint	1st Annual Maint	Day Maint	2nd Annual Maint	Day Maint	3rd Annual Maint	Day Maint	4th Annual Maint	Day Maint	5th Annual Maint
2	Maintenance Schedule			184	368	184	736	184	1104	184	1472	184	1840
3	Order Kit - Part #			TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
4	Order Supplement - Part #						TBD		TBD		TBD		TBD
6	Description of Kit Contents	Part Number	Required	Quantity of Parts in Each Kit									
44	On Carbody												
45	Filter Element As - Air (Primary) for High Voltage Cabinet	290-1935	S										1
46	Filter As - Fuel (stand alone filter)	1R-0755	S						1				
47	Optional Equipment												
48	Coalescing Filter for 975 Air Dryer (Graham-White)		O - not in kit *		O		O		O		O		O
49	Final Filter for 975 Air Dryer (Graham-White)		O - not in kit *		O		O		O		O		O
50	Coalescing Filter for 994 Air Dryer (Graham-White)		O - not in kit *		O		O		O		O		O
51	Final Filter for 994 Air Dryer (Graham-White)		O - not in kit *		O		O		O		O		O
52	NYAB Filter (1 year)	777047	O - not in kit *		O		O		O		O		O
53	CCB-26 COT&S		O - not in kit *										O
55	Legend												
56	This does not include standard EMD part numbers like TM brushes, crater grease, etc.												
57	X = Required												
58	S = Supplement												
59	O = Option (Required for service if option is installed)												
60	* Parts are not provided in this kit, but are available from Progress Rail.												

Mailing Address:

Progress Rail

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Albertville, AL 35950
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E-mail: info@progressrail.com

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