 <p>PO Box 299 Oberon NSW 2787 ABN 98 107 506 208</p>	Version	Author	Reviewed	Reference
	A - 2	SMS Work party	Committee	F-049
	30/01/2019			
	Schedule of Monthly Diesel Locomotive Inspection and Maintenance			

### Document Status

Version	Date	Revision	Prepared	Reviewed	Approved
A	01/07/2018	Draft	SMS Working Party	Committee	
A - 1	29/08/2018	1	SMS Working Party	Committee	29/08/2018
A - 2	30/01/2019	2	SMS Working Party	Committee	30/01/2019

### Revision Record

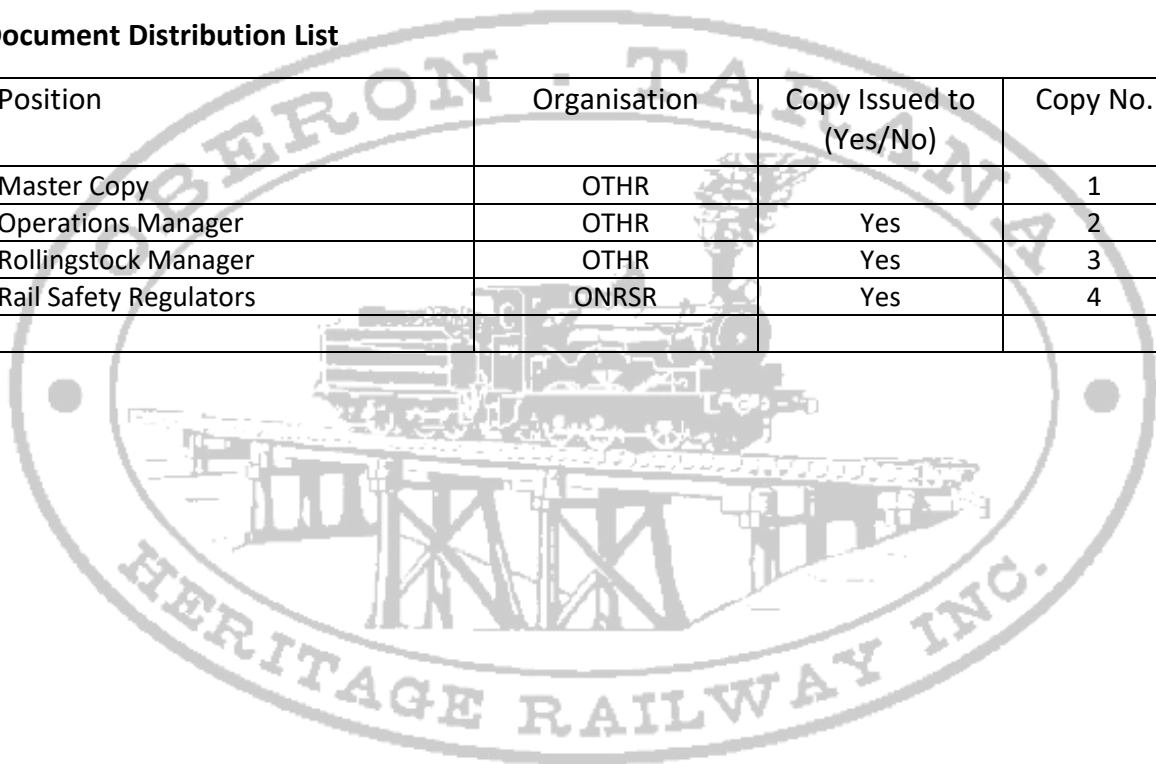
Revision	Date issued	Description of Changes
1	29/08/2018	Additions from SRA 73 Class Manual/Inspection Schedule
2	30/01/2019	Additional information

## Schedule of Monthly Diesel Locomotive Inspection and Maintenance

F-049

### Document Distribution List

Position	Organisation	Copy Issued to (Yes/No)	Copy No.
Master Copy	OTHR		1
Operations Manager	OTHR	Yes	2
Rollingstock Manager	OTHR	Yes	3
Rail Safety Regulators	ONRSR	Yes	4



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Engine N°	Class	Date		
COMPONENT	SCOPE OF WORK	P	F	Itl.
<b>DRIVER'S LOG BOOK</b>	Check all bookings have received attention. Repair all outstanding items.			
<b>ENGINE</b>				
<b>Gauges</b>	Check that all gauges indicate within the normal operating range.			
<b>Engine Oil</b>	Maintain oil level between ADD and FULL marks on dipstick. <sup>1</sup> Check with engine running at idle. <sup>4</sup>			
<b>Engine Oil Filter</b>	Check filter indicator. If indicator is at or above half height with the engine running, then change the oil filter. <sup>1</sup>			
<b>Fuel Oil Filters</b>	Drain water from fuel oil filters <sup>4</sup>			
<b>Turbocharger Air Filters</b>	Remove and clean <sup>4</sup>			
<b>Turbocharger Indicators and Dirt Collector Cups</b>	Check gauge, remove and clean cups <sup>4</sup>			
<b>Control Lever Bearings</b>	Lubricate – 2 strokes <sup>1</sup>			
<b>Main Shaft Bearing</b>	Lubricate 1 fitting – 2 strokes <sup>1</sup>			
<b>Flexible Couplings</b>	Lubricate <sup>4</sup>			
<b>Battery</b>	Maintain electrolyte level to base of each vent well <sup>1</sup>			
<b>Fan &amp; Alternator Belts</b>	Check wear and belt tension <sup>1</sup>			
<b>Oil/Water/Fuel/Exhaust Leaks</b>	Check for any leaks, check condition and security of fuel injector pipes.			
<b>Hold Down Bolts</b>	Check security			
<b>COOLING UNIT</b>	Inspect item to check and drain any tundish.			
<b>Unit</b>	Check for water leaks <sup>4</sup>			
<b>Radiator</b>	Check for accumulation of debris around radiator core – clean if necessary. <sup>4</sup> Use water spray to remove dirt out of radiator air passages. <sup>4</sup>			
<b>Coolant Water</b>	Maintain level between baffle plate & ½" below fill pipe. <sup>1</sup>			
<b>Hydraulic Coupling</b>	Check oil level in sight glass with engine stationary <sup>3</sup>			
<b>Vee Belts</b>	Check wear and belt tension <sup>3</sup>			
<b>TRANSMISSION</b>				
<b>Oil</b>	Check oil level with engine running at idle speed <sup>3</sup> Investigate cause of any excessive usage - oil consumption in excess of 8 litres per month should be investigated. <sup>2</sup>			
<b>Variable Speed Fan</b>	Lube oil check <sup>4</sup>			
<b>Filter</b>	Clean core and body <sup>2</sup> and rotate. <sup>4</sup>			
<b>Secondary Lube Pump</b>	Open pressure test connection next to oil filter. Move loco in either direction. Oil should issue from test connection <sup>2</sup>			

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<b>Pneumatic Filling Pin Actuator</b>	Screw piston and curled nut upwards, grease sparingly. Screw piston downwards into extreme lower position and lock wire. Check piston action by turning air pressure on and off <sup>2</sup>			
<b>Cardan Shafts</b>	Check condition of 2 primary & 2 secondary shafts Grease splines and Universal joints. Check tightness of flange bolts. <sup>4</sup>			
<b>Throttle Cams and Bearings</b>	Check and lubricate if required <sup>4</sup>			
<b>Operating Cylinder</b>	Check and lubricate if required <sup>4</sup>			
<b>Governor and Throttle Control Linkage</b>	Check and lubricate if required <sup>4</sup>			
<b>Final Drive Gear Boxes</b>	Check oil levels in gear boxes on each axle <sup>3</sup>			
<b>MAIN FRAME</b>	Check for obvious damage for defects			
<b>BOGIE</b>				
<b>Frame &amp; Suspension</b>	Check for obvious damage or defects			
<b>Axles</b>	Check all axles for any physical signs of damage			
<b>Axleboxes</b>	Check for physical signs of damage or lubrication problems.			
<b>Axlebox Keeps</b>	Check that axle box keeps are in good condition and correctly fastened			
<b>Wheels</b>	Inspect wheels for defects including flange and tread wear. Use gauge to check if wheel is close to condemning limit.			
<b>UNDERNEATH LOCO</b>				
<b>Sandboxes</b>	Check sandboxes, maintain adequate supply. <sup>4</sup>			
<b>Fuel Tanks</b>	Check condition of fuel tanks and fuel oil level. <sup>4</sup>			
<b>Fuel Tank Condensate and Sight Glass</b>	Drain condensate from fuel tanks. Clean fuel tank sight glasses if necessary. <sup>4</sup>			
<b>Hasler Transmitter</b>	Check security of Hasler transmitter on axle box cover. <sup>4</sup>			
<b>HANDBRAKE</b>	Check Linkage and lubricate moving parts			
<b>AIR SYSTEM</b>				
<b>Air Intake Filters</b>	Check compressor compartment air intake filters. <sup>4</sup>			
<b>Compressor</b>	Check oil level with engine stationary <sup>3</sup>			
<b>Main Reservoir</b>	Drain <sup>5</sup>			
<b>Auxiliary Reservoir</b>	Drain <sup>5</sup>			
<b>Air Cocks at Headstock</b>	Check movement – grease if necessary. <sup>4</sup>			
<b>Air Leaks</b>	Listen for any air leaks in brake pipes, branch pipes, cylinder pipe, triple valve, reservoirs with air brakes applied. Repair any air leaks found <sup>5</sup>			
<b>Brake Pipe Cocks</b>	Check for damage and correct mounting <sup>5</sup>			
<b>Dummy Couplings</b>	Check and replace if necessary <sup>5</sup>			
<b>Hoses</b>	Check condition of brake hoses, coupling heads rubbers <sup>5</sup>			

<b>Brake Valve Test</b>	Test operation of automatic and independent/straight air brake valves in accordance to test procedures <sup>5</sup>			
<b>BRAKES</b>				
<b>Brake Valves</b>	Lubricate. <sup>4</sup>			
<b>Brake Blocks</b>	Check condition and renew to at or near condemning mark <sup>5</sup>			
<b>Brake Rigging</b>	Check condition and oil adjusting screws <sup>5</sup>			
<b>Brake Piston Travel</b>	Adjust to minimum.			
<b>Brake Slack Adjuster</b>	Clean and inspect. <sup>4</sup>			
<b>Handbrake and Handbrake Pulley Pins</b>	Check and lubricate if required. <sup>4</sup>			
<b>Knorr Gear</b>	Drain condensate from air cleaner and control air reservoir <sup>4</sup>			
<b>Knorr Pressure Reducing Valve</b>	Check control air pressure (600 kpa, 85 psi) and adjust if necessary. <sup>4</sup>			
<b>Compressor Lube Pressure</b>	Check air compressor – indicator to project 12mm (1/2 ") or gauge shows 35 kpa (5 psi) or higher with engine idling. <sup>4</sup>			
<b>Safety Valves</b>	Check all safety valves for tightness. Check operation of distributing valve (400 kpa, 55 psi) and main reservoir safety valves (900 kpa, 130 psi). <sup>4</sup>			
<b>Throttle Valve</b>	Set throttle lever in FULL setting – pressure to 35 psi, then build up to 85 psi in approx. 10 seconds. <sup>4</sup>			
<b>Throttle Fine Regulating Valve</b>	Set throttle lever in NEUTRAL, check outlet pressure is ZERO. Throttle lever FULL, check outlet pressure is 85 psi. <sup>4</sup>			
<b>AUTO COUPLERS</b>	A: Auto coupler height 865mm +/- 25 rnm measure from rail level to centre line of coupler face. <sup>4</sup> B: Gauge auto couplers both ends. <sup>4</sup> C: Examine transition links and ensure split pin applied and links not stretched, both ends. <sup>4</sup>			
<b>CAB</b>	Check condition and security of floor, panels, windows, seats, arm rests, doors, locks and hinges. Repair or lubricate if necessary. <sup>4</sup>			
<b>Instrument Panel</b>	Check all instruments are registering correctly			
<b>Windscreen Wipers</b>	Check operation & condition of blades			
<b>Whistles</b>	Test, both sides of cab. <sup>4</sup>			
<b>LIGHTS</b>	Check that Cab, Instrument, Hood & Engine Room, Coupling, Steps, Head and Marker Lights are working			
<b>SANDING EQUIPMENT</b>	Check pipe alignment and discharge rate. Check reverse sander operation (refer SRA Inspection Manual). <sup>4</sup>			
<b>EXHAUST SYSTEM</b>	Check exhaust systems for emission of sparks or carbon particles when powering the Loco. If found remove and clean mufflers.			
	Check exhaust emissions for unusual operation such as excessive black or white smoke which could be indicative of a engine fault.			

References

- |   |                                  |                  |
|---|----------------------------------|------------------|
| 1 | Caterpillar Service Manual       | Checked By _____ |
| 2 | Voith Turbo Transmission Manual  |                  |
| 3 | Walkers Ltd – 73 Class Manual    | Signature _____  |
| 4 | SRA 73 Class Manual / Inspection |                  |
| 5 | Westinghouse Brake Manual        | Date _____       |
| 6 | <b>TRS INSERT NUMBER</b>         |                  |

