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TM/HIM/BOC/PI-III

Date: 27.05.2020

- |      |  |   |
|------|--|---|
| I-   | मुख्य अभियन्ता (ट्रैक मशीन) सभी क्षेत्रिय रेलवे                | Chief Engineer (Track Machines) All Zonal Railways          |
| II-  | मुख्य कार्यशाला प्रबन्धक (ट्रैक मशीन)                          | Chief Workshop Manager (Track Machines)                     |
|      | सी.पी.ओ.एच. कार्यशाला इलाहाबाद, रायनापाडु, कचरापारा, अहमदाबाद, | CPOH WPRKSHOP, Allahabad, Rayanapadu, Kachrapara, Ahmedabad |
| III- | प्रधानाचार्य गारारेप.ग.प्र.के. पीपल गांव इलाहाबाद-211011       | Principal, IRTMTC, Pipal Gaon, Allahabad-211011             |

Detailed addresses are enclosed herewith.

**विषय:** बैलास्ट क्लिनिंग मशीन (आर.एम.-900) (प्लासर) की निरीक्षण जॉब एवं अनुस्मरण अनुसूची प्रस्तुत सूची।


**Sub:** Inspection Check List and Maintenance Schedule for Ballast Cleaning Machine RM -900 (Plasser)

बैलास्ट क्लिनिंग मशीन (आर.एम. 900) की निरीक्षण जॉब एवं अनुस्मरण अनुसूची प्रस्तुत सूची प्रेषित की गई है जिसकी प्रति, आपके सूचना तथा मशीन के कर्मचारियों जो फील्ड में कार्य कर रहे हैं, के मार्गदर्शन हेतु संलग्न है। यद्यपि जगहों पर सूची बनाते समय सभी सावधानियों धरती गई है, फिर भी, यदि कोई त्रुटि हो तो कृपया अपने सुझावों/टिप्पणियों को सुधार हेतु ई मेल /फैक्स /पत्राचार द्वारा अधोदरशाक्षरी को अवगत करावें।

Inspection Check List and Maintenance Schedule for Ballast Cleaning Machine RM -900 (Plasser) have been prepared. A copy of the same is enclosed herewith for your information and guidance of the machine staff working in the field. However, every care has been taken during preparation of the above list, the discrepancy noticed, if any, may be brought to the knowledge of the undersigned for further improvement, by email/fax/post.

E-mail Id- [hmtmmrdsso@gmail.com](mailto:hmtmmrdsso@gmail.com)

संलग्नक : उपरोक्त

  
27.5.2020  
(ओम प्रकाश)

निदेशक/रेलवे मशीन-III

**I- मुख्य अभियन्ता (ट्रैक मशीन)**

- 1.0 मध्य रेलवे, सीएसटी, मुम्बई-400 001
- 2.0 फेयरली प्लेस, पूर्व रेलवे, कोलकाता-700 001
- 3.0 बड़ौदा हाउस, उत्तर रेलवे, नयी दिल्ली-110 001
- 4.0 उत्तरपूर्व रेलवे, गोरखपुर 273012
- 5.0 मालीगांव, उत्तरपूर्व सीमान्त रेलवे, गुवाहाटी-781 011
- 6.0 पार्क टाउन, दक्षिण रेलवे, चेन्नई-600 003
- 7.0 रेल निलयम, दक्षिण मध्य रेलवे, सिकन्दराबाद-500 371
- 8.0 गार्डन रीच, दक्षिणपूर्व रेलवे, कोलकाता-700 043
- 9.0 चर्चगेट, पश्चिम रेलवे, मुम्बई-400 020
- 10.0 उत्तर पश्चिम रेलवे, जयपुर-302 001
- 11.0 पूर्व मध्य रेलवे, हाजीपुर-844 101
- 12.0 दक्षिण पश्चिम रेलवे, हुवली-580 023
- 13.0 उत्तर मध्य रेलवे, इलाहाबाद-211 015
- 14.0 पूर्व तट रेलवे, भुवनेश्वर-751 001
- 15.0 पश्चिम मध्य रेलवे, जबलपुर-482 001
- 16.0 दक्षिण पूर्व मध्य रेलवे, बिलासपुर-495 004

**II- मुख्य कार्यशाला प्रबन्धक (ट्रैक मशीन)**

- 1.0 सी.पी.ओ.एच. कार्यशाला पो0 धूमनगंज इलाहाबाद-221012
  - 2.0 सी.पी.ओ.एच. कार्यशाला, दक्षिण मध्य रेलवे, रायनापाडु, विजयवाडा, जिला कृष्णा, आन्ध्र प्रदेश. 521241
  - 3.0 सी.पी.ओ.एच., कार्यशाला, पूर्व रेलवे, भूतबागान रेलवे कॉलोनी, कांचरापारा, पी. एस.- बिजपुर, पी. ओ.- कांचरापारा, पश्चिम बंगाल-743145
  - 4.0 मुख्य अभियन्ता, सी.पी.ओ.एच., पश्चिम रेलवे, मंडल रेल प्रबंधक कार्यालय, चामुंडा माता मंदिर के पास, नरोड़ा रोड, पोस्ट-सैजपुर बोधा, अहमदाबाद-382345
- III- प्रधानाचार्य भा.रे.रे.प.म.प्र.के. पीपल गांव इलाहाबाद-211011**

**Chief Engineer (Track Machines)**

- CST, C R, Mumbai - 400 001.  
Fairlie Place, E R, Kolkata-700 001.  
Baroda House, N R, New Delhi-110 001.  
N E R, Gorakhpur-273 012.  
Maligaon, N F R, Guwahati -781 011.  
Park Town, S R, Chennai -600 003.  
Rail Nilayam, SCR, Secunderabad-500 371.  
Garden Reach, S E R, Kolkata-700 043.  
Churchgate, W R, Mumbai-400 020  
N W R, Jaipur-302 001.  
E C R, Hazipur-844 101  
SWR, Hubli-580 023  
NCR, Allahabad-211 015  
East Coast Rly, Bhubaneshwar-751 001  
WCR, Jabalpur-482 001  
South East Central Rly, Bilaspur-495 004

**Chief Workshop Manager (Track Machines)**

- CPOH Workshop, PO. Dhoomanganj Allahabad-221012  
CPOH Workshop, South Central Railway, Rayanapadu, Vijaywada, Dist.-Krishna, Andhra Pradesh-521241  
CPOH Workshop, Eastern Railway, Bhutbagan Railway Colony, Kanchrapara, P.S: Bizpur, P.O.: Kanchrapara, West Bengal-743145  
Chief Engineer. C.P.O.H, Western Railway, Divisional Office, Near Chamunda Mata Mandir, Naroda Road, Post- Sajipur Bogha, Ahmedabad-382345  
Principal, IRTMTC, PipalGaon, Allahabad-211011





भारत सरकार  
भारतीय रेलवे

GOVERNMENT OF INDIA  
INDIAN RAILWAYS

बैलास्ट क्लीनिंग मशीन; (आर.एम-900) की निरीक्षण जांच सूची

**INSPECTION CHECK LIST FOR BALLAST  
CLEANING MACHINE (RM-900)**



रिपोर्ट संख्या: टी.एम.- 237  
**Report No.TM – 237**

**May-2020**

अनुसंधान अभिकल्प और मानक संगठन  
लखनऊ-226011

**RESEARCH DESIGNS & STANDARDS ORGANISATION  
LUCKNOW- 226 011**

## INSPECTION CHECK LIST FOR BALLAST CLEANING MACHINE (RM-900)

**Name & Designation of Inspecting Official :**  
**Date of Inspection :**  
**Machine No. :**  
**Base Station/Division :**  
**Working between station : From\_\_\_\_\_ To\_\_\_\_\_**  
**Location km : From\_\_\_\_\_ To\_\_\_\_\_**  
**Block hours :**  
**Progress :**  
**Remarks :**

### ITEMS TO BE CHECKED

S. No	Items	Remarks given by inspecting officer
<b>1.0</b>	<b>General :</b>	
1.1	Name of SSE/JE	
1.2	Machine make and model	
1.3	Year of manufacturing	
1.4	First POH of Machine done on	
1.5	Last IOH of M/C done on	
1.6	Next IOH of M/C due on	
1.7	Last POH of M/C done on	
1.8	Next POH of M/C due on	
1.9	Last POH of camping coach done on	
1.10	Next POH of camping coach due on	
1.11	All log books filled properly	
1.12	Pending Maintenance Schedule and its reason in Schedule I,II,III,IV,V,VI,VII	
1.13	Failure Register updated	
1.14	Reserve stock of consumables and spare parts	

S. No.	Items	Prevailing Condition	
1.15	General cleanliness of the machine	Ok <input type="checkbox"/>	To be cleaned <input type="checkbox"/>
1.16	Function of locking devices	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
1.17	Condition of camping coach	Satisfactory <input type="checkbox"/>	Poor <input type="checkbox"/>
1.18	Condition of machine base stabling siding	Satisfactory <input type="checkbox"/>	Poor <input type="checkbox"/>
1.19	Condition of rest house at stabling station if available	Satisfactory <input type="checkbox"/>	Poor <input type="checkbox"/>
1.20	Provision of water & electric supply at stabling station	Available <input type="checkbox"/>	Not available <input type="checkbox"/>
1.21	Pre and Post work for ballast cleaning operation being done	Yes <input type="checkbox"/>	No <input type="checkbox"/>
1.22	Function of Emergency starting (Back-up) system of machine	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
1.23	Condition of tools & plants (spanner, wrench etc.)	Ok <input type="checkbox"/>	To be replaced <input type="checkbox"/>
1.24	Material available at site {as per critical spares parts list of BCM (RM-900) issued by RDSO/LKO}	Yes <input type="checkbox"/>	No <input type="checkbox"/>
1.25	Condition of Generator Plant	Ok <input type="checkbox"/>	To be attend <input type="checkbox"/>

**History of Machine:**-----  
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Sr. no.	I t e m s	Prevailing Conditions CATERPILLAR C-27 783 KW@1800 (ATW-1)		Prevailing Conditions CATERPILLAR C-27 783 KW@1800,(ATW-2)	
2.0	<b>ENGINE:</b>				
2.1	Engine hours on date	_____ ERH		_____ ERH	
2.2	Last top overhauling of the Engine if done	Dated _____	.....ERH	Dated _____	.....ERH
2.3	Starting problem	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2.4	Condition of smoke	White <input type="checkbox"/> Normal <input type="checkbox"/>	Black <input type="checkbox"/>	White <input type="checkbox"/> Normal <input type="checkbox"/>	Black <input type="checkbox"/>
2.5	Leakage in Head gasket	Yes <input type="checkbox"/> Head no .....	No <input type="checkbox"/>	Yes <input type="checkbox"/> Head no ....	No <input type="checkbox"/>
2.6	V-Belt condition and tension	Ok <input type="checkbox"/>	To be tightened <input type="checkbox"/>	Ok <input type="checkbox"/>	To be tightened <input type="checkbox"/>
2.7	Fire detector sensor	Ok <input type="checkbox"/>	need attention <input type="checkbox"/>	Ok <input type="checkbox"/>	need attention <input type="checkbox"/>
2.8	RPM of the Engine (Rated 1800)	Actual-----		Actual-----	
2.9	Spraying nozzle for fire extinguishing system	Ok <input type="checkbox"/>	need attention <input type="checkbox"/>	Ok <input type="checkbox"/>	need attention <input type="checkbox"/>
2.10	Change of Air Cleaner filters (500 Hrs duration)	Dated <input type="checkbox"/>	ERH <input type="checkbox"/>	Dated <input type="checkbox"/>	ERH <input type="checkbox"/>
2.11	Change of engine oil (250Hrs duration)	done <input type="checkbox"/>	Not done <input type="checkbox"/>	done <input type="checkbox"/>	Not done <input type="checkbox"/>
2.12	Change of lub. oil filter (250 Hrs duration)	done <input type="checkbox"/>	Not done <input type="checkbox"/>	done <input type="checkbox"/>	Not done <input type="checkbox"/>
2.13	Engine oil pressure a) 1.5 Kg/cm <sup>2</sup> at idle rpm b) 2.5 Kg/ cm <sup>2</sup> on load after 2 hours working	Ok <input type="checkbox"/> Ok <input type="checkbox"/>	need attention <input type="checkbox"/> need attention <input type="checkbox"/>	Ok <input type="checkbox"/> Ok <input type="checkbox"/>	need attention <input type="checkbox"/> need attention <input type="checkbox"/>
2.14	Engine temperature after two hours working	.....°C		.....°C	
2.15	Any abnormal sound	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>

Sr. no.	I t e m s	Prevailing Conditions CATERPILLAR C-27 (ATW-1)		Prevailing Conditions CATERPILLAR C-27 (ATW-2)	
2.16	Overall condition of engine	Ok <input type="checkbox"/>	Not <input type="checkbox"/> satisfactory	Ok <input type="checkbox"/>	Not <input type="checkbox"/> satisfactory
2.17	<b>Whether working gauges/display are in order or not (Touch panel 1&amp;3)</b>				
	a) R.P.M	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	b) Lub. oil	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	c) Lub. oil temp.	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	d) Speedometer	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	e) Pneumatic pressure gauge	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	f) Hydraulic oil level gauges	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	g) Hydraulic oil temperature gauge	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	h) Diesel fuel pressure	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	i) Cooling water temperature	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2.18	Change of diesel filters (500 Hrs)	Done <input type="checkbox"/>	Not <input type="checkbox"/> done	Done <input type="checkbox"/>	Not <input type="checkbox"/> done
2.19	Condition of battery terminals	Ok <input type="checkbox"/>	To be <input type="checkbox"/> tightened	Ok <input type="checkbox"/>	To be <input type="checkbox"/> tightened
2.20	Battery charging system	Ok <input type="checkbox"/>	Not <input type="checkbox"/> satisfactory	Ok <input type="checkbox"/>	Not <input type="checkbox"/> satisfactory
2.21	Condition of battery (main battery) 24 V DC	Ok <input type="checkbox"/>	Not <input type="checkbox"/> satisfactory	Ok <input type="checkbox"/>	Not <input type="checkbox"/> satisfactory
2.22	Electrolyte level in batteries (Plates should be embedded in electrolyte)	Ok <input type="checkbox"/>	Need <input type="checkbox"/> Top up	Ok <input type="checkbox"/>	Need <input type="checkbox"/> Top up
2.23	Specific gravity of electrolyte (min 1.24)	Ok <input type="checkbox"/>	Less <input type="checkbox"/>	Ok <input type="checkbox"/>	Less <input type="checkbox"/>
2.24	Condition of early fire detection system	Ok <input type="checkbox"/>	Not <input type="checkbox"/> satisfactory	Ok <input type="checkbox"/>	Not <input type="checkbox"/> satisfactory
2.25	Function of Hy. powered air compressor	Ok <input type="checkbox"/>		Need attention <input type="checkbox"/>	
2.26	Function of Electric powered air compressor	Ok <input type="checkbox"/>		Need attention <input type="checkbox"/>	

Sr. no.	I t e m s	Prevailing Conditions	
3.0	<b>CAT-GENERATOR ENGINE (DE 65-E3) 40kVA</b>		
3.1	Engine hours on date	Date- _____	ERH _____
3.2	Last top overhauling of the Engine if done	Dated _____	.....ERH _____
3.3	Starting problem	Yes <input type="checkbox"/>	No <input type="checkbox"/>
3.4	Condition of smoke	White <input type="checkbox"/> Normal <input type="checkbox"/>	Black <input type="checkbox"/>
3.5	Leakage in Head gasket	Yes <input type="checkbox"/>	No <input type="checkbox"/>
3.6	V-Belt condition and tension	Ok <input type="checkbox"/>	To be tightened <input type="checkbox"/>
3.7	RPM of the Engine (Rated 1800)	Actual-----	Actual-----
3.8	Change of Air Cleaner filters (500 Hrs duration)	Dated <input type="checkbox"/>	ERH <input type="checkbox"/>
3.9	Change of engine oil Shell Rimula R4x15W40 (250Hrs duration)	done <input type="checkbox"/>	Not done <input type="checkbox"/>
3.10	Change of lub. oil filter (250 Hrs duration)	done <input type="checkbox"/>	Not done <input type="checkbox"/>
3.11	Engine oil pressure b) 1.5 Kg/cm <sup>2</sup> at idle rpm b) 2.5 Kg/ cm <sup>2</sup> on load after 2 hours working	Ok <input type="checkbox"/> Ok <input type="checkbox"/>	need attention <input type="checkbox"/> need attention <input type="checkbox"/>
3.12	Engine temperature after two hours working	.....°C	
3.13	Any abnormal sound	Yes <input type="checkbox"/>	No <input type="checkbox"/>
3.14	Overall condition of engine	Ok <input type="checkbox"/>	Not satisfactory <input type="checkbox"/>
3.15	Condition of generator	Ok <input type="checkbox"/>	Not satisfactory <input type="checkbox"/>
3.16	Condition of battery terminals (12 volts,100 amps)	Ok <input type="checkbox"/>	To be tightened <input type="checkbox"/>

Remark :-.....  
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Sr. No.	Items	Agent / Description	Prevailing Condition				
4.0	OIL LEVELS						
4.1	Hydraulic oil ATW1 & ATW2	Shell Tellus S2 V 68	OK	<input type="checkbox"/>	Need top up	<input type="checkbox"/>	
4.2	Diesel tank ATW1 & ATW2	HSD oil	OK	<input type="checkbox"/>	Need top up	<input type="checkbox"/>	
4.3	Axle G.Box 1,2, 3,4,11,12,13,14	Shell Tellus S2 V 68	OK	<input type="checkbox"/>	Need top up	<input type="checkbox"/>	
4.4	Main gear box ATW1 & ATW2	Shell Tellus S2 V 68	OK	<input type="checkbox"/>	Need top up	<input type="checkbox"/>	
4.5	Engine lube oil ATW1 & ATW2	Shell Rimula R4 X 15W40	OK	<input type="checkbox"/>	Need top up	<input type="checkbox"/>	
4.6	Conveyor belt gear box A1- 3,B1-3,C1-3	Shell Omala S4 GX 220	OK	<input type="checkbox"/>	Need top up	<input type="checkbox"/>	
4.7	Generator Engine oil	Shell Rimula R4 X 15W40	OK	<input type="checkbox"/>	Need top up	<input type="checkbox"/>	
4.8	Lubricating grease	Shell Gadus S3 V 220 C2/Renolit H443-HD88	OK	<input type="checkbox"/>	Need top up	<input type="checkbox"/>	
4.9	Lubricating oil tank for C1(lhs & rhs), A2 & B1	Fuchs Stabylan ECO 7	OK	<input type="checkbox"/>	Need top up	<input type="checkbox"/>	
4.10	Engine Coolant	CAT ELC	OK	<input type="checkbox"/>	Need top up	<input type="checkbox"/>	
4.11	Rotating Track G.Box	Shell Omala S4 GX 220	OK	<input type="checkbox"/>	Need top up	<input type="checkbox"/>	
4.12	Stabilizer unit	Shell Rimula R4 X 15W40	OK	<input type="checkbox"/>	Need top up	<input type="checkbox"/>	
4.13	Water tank level	Water	OK	<input type="checkbox"/>	Need top up	<input type="checkbox"/>	

Remark :-----  
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Sr. No.	Items	Prevailing Condition	
<b>5.0</b>	<b>POWER TRANSMISSION &amp; EXCAVATION UNIT:</b>		
5.1	Oil leakage in gear boxes (1,2,3,4,11,12,13 & 14)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
5.2	Play in universal joint Cardon shafts	Ok <input type="checkbox"/>	To be adjusted <input type="checkbox"/>
5.3	Greasing of all Cardon shafts	done <input type="checkbox"/>	Not done <input type="checkbox"/>
5.4	Chocking indication of all axles filters.	Ok <input type="checkbox"/>	No <input type="checkbox"/>
5.5	Lubrication of Ascending and Descending corner rollers	Ok <input type="checkbox"/>	To be done <input type="checkbox"/>
5.6	Condition of chain & roller bearings	Ok <input type="checkbox"/>	To be done <input type="checkbox"/>
5.7	Condition of Guide rollers	Satisfactory <input type="checkbox"/>	No. ....
5.8	Condition of Wear plates	Satisfactory <input type="checkbox"/>	To be attended <input type="checkbox"/> No. ....
5.9	Condition of excavating chain & finger	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
5.10	Condition of cutter bar	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
5.11	Central lubrication system	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
<b>6.0</b>	<b>SCREENING UNIT &amp; DISTRIBUTOR:</b>		
6.1	Condition of ballast distribution gate	Ok <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>
6.2	Vibration of the both screening units	Ok <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>
6.3	Greasing of screen drive.	Ok <input type="checkbox"/>	To be done <input type="checkbox"/>
6.4	Condition of screen meshes & chute plates	Ok <input type="checkbox"/>	To be replaced <input type="checkbox"/>
6.5	Condition of screen setting	Ok <input type="checkbox"/>	To be done <input type="checkbox"/>
6.6	Condition of screen units buffer & bearing.	Ok <input type="checkbox"/>	To be replaced <input type="checkbox"/>
6.7	Whether screen is clean or not	clean <input type="checkbox"/>	not clean <input type="checkbox"/>

Remark :-----  
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S. No.	I t e m s	Prevailing Condition			
7.0	TRACK LIFTING UNITS (Rail clamp 1 & 2), STABILIZER UNIT (DGS) & CRANE (Palfinger):-				
7.1	Greasing of lifting unit guide column	Ok	<input type="checkbox"/>	To be done	<input type="checkbox"/>
7.2	Greasing of rail clamp pivot pins	Ok	<input type="checkbox"/>	To be done	<input type="checkbox"/>
7.3	Greasing of roller clamp housing	Ok	<input type="checkbox"/>	To be done	<input type="checkbox"/>
7.4	Greasing of locking devices pivots	Ok	<input type="checkbox"/>	To be done	<input type="checkbox"/>
7.5	Tightness of roller bracket locking	Ok	<input type="checkbox"/>	To be tightened	<input type="checkbox"/>
7.6	Clearance of lifting roller disc below the rail head in lower conditions- Rear - 5 mm Front - 12 mm	Ok	<input type="checkbox"/>	To be adjusted	<input type="checkbox"/>
7.7	Working of slewing devices	Ok	<input type="checkbox"/>	Unsatisfactory	<input type="checkbox"/>
7.8	Working of lifting cylinder	Ok	<input type="checkbox"/>	Unsatisfactory	<input type="checkbox"/>
7.9	Greasing of lifting roller bearing	Ok	<input type="checkbox"/>	To be done	<input type="checkbox"/>
7.10	Condition of lifting roller disc	Ok	<input type="checkbox"/>	Unsatisfactory	<input type="checkbox"/>
7.11	Greasing of stabilizing units	Ok	<input type="checkbox"/>	To be done	<input type="checkbox"/>
7.12	Condition of stabilizing rollers	Ok	<input type="checkbox"/>	Unsatisfactory	<input type="checkbox"/>
7.13	Function of crane	Ok	<input type="checkbox"/>	Unsatisfactory	<input type="checkbox"/>
7.14	Replacement of proportional filter(250hrs)	Ok	<input type="checkbox"/>	To be done	<input type="checkbox"/>
7.15	Condition of axle support cylinders	Ok	<input type="checkbox"/>	To be attend	<input type="checkbox"/>
7.16	Condition of all measuring axles	Ok	<input type="checkbox"/>	To be attend	<input type="checkbox"/>
7.17	Condition of hyd. Oil filtering device	Ok	<input type="checkbox"/>	To be attend	<input type="checkbox"/>

Remark :-----  
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S. No.	I t e m s	Prevailing Condition		
8.0	HYDRAULIC AND PNEUMATIC PRESSURE			
8.1	Hyd.pr. wast conveyor B 1 (315 bar)	Ok	<input type="checkbox"/>	To be adjusted <input type="checkbox"/>
8.2	Hyd. system pressure (140 bar)	Ok	<input type="checkbox"/>	To be adjusted <input type="checkbox"/>
8.3	Hyd.pr. wast conveyor B 2 (315 bar)	Ok	<input type="checkbox"/>	To be adjusted <input type="checkbox"/>
8.4	Hyd.pr. driving axle 3&4 (380 bar)	Ok	<input type="checkbox"/>	To be adjusted <input type="checkbox"/>
8.5	Hyd.pr. discharge conv. B 3 (315 bar)	Ok	<input type="checkbox"/>	To be adjusted <input type="checkbox"/>
8.6	Hyd.pr. transfer conv. B 4 (315 bar)	Ok	<input type="checkbox"/>	To be adjusted <input type="checkbox"/>
8.7	Hyd.pr. driving axle 5&6 (380 bar)	Ok	<input type="checkbox"/>	To be adjusted <input type="checkbox"/>
8.8	Hyd.pr. transfer conv. A 2 (315 bar)	Ok	<input type="checkbox"/>	To be adjusted <input type="checkbox"/>
8.9	Hyd.pr. screen conv. A 3 (315 bar)	Ok	<input type="checkbox"/>	To be adjusted <input type="checkbox"/>
8.10	Hyd.pr. for charging pump 1 for axle 3&4 (28 bar)	Ok	<input type="checkbox"/>	To be adjusted <input type="checkbox"/>
8.11	Hyd.pr. for C1 (LHS & RHS 315 bar)	Ok	<input type="checkbox"/>	To be adjusted <input type="checkbox"/>
8.12	Hyd.pr. for C2 (LHS & RHS 315 bar)	Ok	<input type="checkbox"/>	To be adjusted <input type="checkbox"/>
8.13	Hyd.pr. for charging pump 2 for axle 5&6 (28 bar)	Ok	<input type="checkbox"/>	To be adjusted <input type="checkbox"/>
8.14	Hyd.pr. for drive screen 1(315 bar)	Ok	<input type="checkbox"/>	To be adjusted <input type="checkbox"/>
8.15	Hyd.pr. for drive screen 2 (315 bar)	Ok	<input type="checkbox"/>	To be adjusted <input type="checkbox"/>
8.16	Hyd.pr. for Hy, comp. drive (210 bar)	Ok	<input type="checkbox"/>	To be adjusted <input type="checkbox"/>
8.17	Hyd .pr. for pilot ope. Sol. Valves (30 bar)	Ok	<input type="checkbox"/>	To be adjusted <input type="checkbox"/>
8.18	All axle clutch pressures (17 bar)	Ok	<input type="checkbox"/>	To be attended <input type="checkbox"/>
8.19	All axle clutch lubrication pressures (1 bar)	Ok	<input type="checkbox"/>	To be attended <input type="checkbox"/>
8.20	Pneumatic pressure (Max. <sup>m</sup> 7-8 bar)	Ok	<input type="checkbox"/>	To be adjusted <input type="checkbox"/>
9.0	CONVEYOR BELTS:- A 1-3,B 1-3 & C 1-3			
9.1	Condition of conveyor belts	Ok	<input type="checkbox"/>	To be replaced <input type="checkbox"/>
9.2	Tension in the conveyor belts	Ok	<input type="checkbox"/>	To be adjusted <input type="checkbox"/>
9.3	Hydraulic slew ability of waste conveyor belts (left & right)	Ok	<input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>
9.4	Hydraulic slew ability of conveyor belts for movement	Ok	<input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>

Remark :-----

S. No.	I t e m s	Prevailing Condition	
9.5	Proper positioning of waste conveyor belts	Ok <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>
9.6	Locking / unlocking devices of conveyor belts	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
9.7	Greasing of main conveyor bearing (50 Hrs)	Ok <input type="checkbox"/>	To be done <input type="checkbox"/>
9.8	Condition of idle rollers of conveyor.	Ok <input type="checkbox"/>	To be replaced <input type="checkbox"/>
9.9	Condition of conveyor safety system	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
<b>10.0</b>	<b>ELECTRICAL AND ELECTRONICS</b>		
10.1	Working Head lights, Tail light and other lights	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
10.2	Emergency stop button/switches	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
10.3	Audible warning system	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
10.4	Flasher light	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
10.5	Hooter	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
10.6	Working of Electric Horn	Ok <input type="checkbox"/>	Need attention <input type="checkbox"/>
10.7	Current indicator	Ok <input type="checkbox"/>	Need attention <input type="checkbox"/>
10.8	Voltage indicator	Ok <input type="checkbox"/>	Need attention <input type="checkbox"/>
10.9	Condition of circuit breaker	Ok <input type="checkbox"/>	Need attention <input type="checkbox"/>
10.10	All transducers condition	Ok <input type="checkbox"/>	Need attention <input type="checkbox"/>
10.11	Both screen vibration speed monitoring	Ok <input type="checkbox"/>	Need attention <input type="checkbox"/>
10.12	Condition of remote control for Cutter bar assembly	Ok <input type="checkbox"/>	Need attention <input type="checkbox"/>
10.13	230 VAC system	Ok <input type="checkbox"/>	Need attention <input type="checkbox"/>
10.14	Engine Temperature monitoring system	Ok <input type="checkbox"/>	Need attention <input type="checkbox"/>
10.15	Function of emergency starting system	Ok <input type="checkbox"/>	Need attention <input type="checkbox"/>
<b>11.0</b>	<b>PNEUMATICS</b>		
11.1	Drain all drip cups.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
11.2	Condition of pneumatic plough cylinder	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
11.3	Condition of KE valve (indirect brake)	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
11.4	Pneumatic horn	Working <input type="checkbox"/>	Not working <input type="checkbox"/>

Remark :-----  
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S. No.	Items	Prevailing Condition	
11.5	Pneumatic lubricator	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
11.6	Condition of emergency brake	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
11.7	All pressure settings	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
11.8	Condition of (4 nos) air dryers	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
11.9	Condition of Pn. cylinders	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
11.10	Condition of compressors type VV180T (ATW1 & 2)	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
11.11	Condition of cooler fins of the cylinders	Ok <input type="checkbox"/>	To be cleaned <input type="checkbox"/>
11.12	Last replace of dry type filter cartridge of air compressor (Every 1000 hrs.)	Ok <input type="checkbox"/>	To be replace <input type="checkbox"/>
<b>12.0.</b>	<b>UNDER FRAME INSPECTION</b>		
<b>12.1</b>	<b>UNDER FRAME</b>		
12.1.1	Visual Inspection of centre pivot mounting Bolts and Mounting of Suspension system ,Bogie Frame etc.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
12.1.2	Examine the shock absorber for damages.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
12.1.3	Visual Inspect centre pivot cover.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
12.1.4	Check condition of head stock/sole bar of centre buffer Coupler.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
<b>12.2</b>	<b>BOGIE FRAME &amp; WHEELS</b>		
12.2.1	Visual and Physical inspection of wheel shall be done at a frequency of once in a year or after every 1000 engine running hours whichever is earlier.	Done <input type="checkbox"/>	Not done <input type="checkbox"/>
12.2.2	Visual Inspection of wheels and under gear for any infringement.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
12.2.3	Visually inspect all the welding locations.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
12.2.4	Visually check the suspension brackets.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
<b>12.3</b>	<b>Brake Rigging</b>		
12.3.1	Visually check the rubbing plates.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
12.3.2	Examine brake beams breakages/ damages.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
12.3.3	Inspection of Brake hanger bracket , torque support , cardan shaft hanger.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>



S. No.	Items	Prevailing Condition	
<b>12.4</b>	<b>Draw Gear</b>		
12.4.1	Check condition of the screw coupling/CBC coupling and replace if required.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
12.4.2	Examine draw hook, draw bars, rubber pads for damages	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
12.4.3	Ensure that wear at any section on draw hook should not exceed 10 mm.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
12.4.4	Ensure that wear on screw coupling shackle pins, trunion pins, shackle/link holes and draw hook holes should not exceed 3 mm.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
<b>12.5</b>	<b>Buffing Gear</b>		
12.5.1	Visually examine the wheel tyre profile and crack with tyre profile gauge as mention in procedure for inspection of wheels (On Track Machines) issued by RDSO report no. TM-170	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
12.5.2	Examine for corrosion of sole bar and other under frame member with track light or inspection lamp.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
12.5.3	Visually examine the buffers casing for cracks/damages.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
<b>13.0</b>	<b>STAFF</b>		
13.1	Strength of staff as per IRTMM (Second Edition)-2017	Full <input type="checkbox"/>	Deficient <input type="checkbox"/>
13.2	Safety awareness	Excellent <input type="checkbox"/> Good <input type="checkbox"/>	Very good <input type="checkbox"/> Average <input type="checkbox"/>
13.3	Staff due for Medical	.....	
13.4	Staff due for training	.....	Overdue <input type="checkbox"/>
13.5	Competency certificate of the Operator	Current <input type="checkbox"/>	Expired <input type="checkbox"/>
13.6	Staff availing rest on due date	Yes <input type="checkbox"/>	No <input type="checkbox"/>
13.7	Staff amenities as per up to date IRTMM (Second Edition)-2017	Satisfactory <input type="checkbox"/>	Poor <input type="checkbox"/>
<b>14.0</b>	<b>SAFETY ITEMS</b>		
14.1	Safety equipment as per Annexure-I	Available <input type="checkbox"/>	Deficient <input type="checkbox"/>
14.2	Working of safety Emergency Braking System of the machine	Ok <input type="checkbox"/>	Defective <input type="checkbox"/>
14.3	Fire extinguisher	Current <input type="checkbox"/>	Expired (Date.....) <input type="checkbox"/>



**List of Safety Equipments**

<b>Sr. No.</b>	<b>Description</b>	<b>Quantity</b>	<b>Available Yes (√)/No (x)</b>
1.	Red and hand signal flags	2 Nos.	
2.	Green hand signal flags	1 No.	
3.	Tri- colour hand signal lamps/LED torch	2 Nos	
4.	Chain With Padlock	2 Nos.	
5.	Fire Extinguisher	One per cabin	
6.	Hooter ( Manually Controlled)	2 Nos.	
7.	Jack 50 t (Transverse type)	2 Nos.	
8.	Wooden Blocks	4 Nos.	
9.	Crow bars	4 Nos.	
10.	Hydraulic hand pump	1 No.	
11.	Emergency Pneumatic / Hydraulic hose off size suiting to different machines (complete with end fitting)	As per requirement	
12.	Wire rope with close loops at both ends 2 meters and 9 meters long one of each length.	As per requirement	
13.	Machine Specific Equipment if any.	As per requirement	
14.	Fog signals ( detonators ) in a tin case	10 Nos.	
15.	A copy of working time table of this section where the machine is working	1 No.	
16.	G & SR book with up to date amendment slips	1 No.	
17.	4 cells flasher light LED lamp cum flasher light (rechargeable)	1 No.	
18.	Banner flags	2 Nos.	
19.	First aid Box	1 No.	
20.	Skids	2 Nos.	
21.	Safety Helmet	All machine staff	
22.	Protection clothing , safety shoes and safety gloves	All machine staff	
23.	Walkie talkie with frequency of SM, guard and loco pilots	2 Nos.	
24.	Internal communication system walkie talkie and / or head mounting system	-	
25.	Track machine manual with up to date correction slip	1 No.	
26.	Accident manual	1 No.	
27.	Tail Lamp	1 No.	

**Note:** Inspecting official should wear the protective equipment when doing the inspection of machine.

## **ACKNOWLEDGEMENT**

Following officer and staffs have made their valuable contributions in finalization of inspection check list for Ballast Cleaning Machine (RM-900).

### **Railways:-**

### **RDSO:-**

- |                         |        |
|-------------------------|--------|
| 1. Shri Muslim Ahmad    | ARE/TM |
| 2. Shri V.P. Srivastava | SSE/TM |
| 3. Shri D.G. Sharma     | SSE/TM |