



File No.RDSO-TMM0LKO(H060)/1/2020-O/o PED/TMM/RDSO  
 भारत सरकार - रेल मंत्रालय Government of India-Ministry of Railways  
 अनुसंधान अभिकल्प और मानक संगठन Research Designs & Standards Organisation  
 लखनऊ - 226 011 Lucknow - 226 011  
 EPBX (0522) 2451200 DID (0522) 2450115  
 Fax (0522) 2458500 DID (0522) 2465310  
 TM/HM/SBCM/Pt-III



Date: 07.12.2020

- |  |   |
|--|---|
| 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, रायनापादु, कचरापारा, अहमदाबाद,   | CPOH WPRKSHOP, Allahabad, Rayanapadu, Kachrapara, Ahmedabad |
| III- प्रधानाचार्य ना.रे.रे.प.म.प्र.के. पीपल गांव इलाहाबाद-211011 | Principal, IRTMTC, Pipal Gaon, Allahabad-211011             |

Detailed addresses are enclosed herewith.

विषय: शोल्डर बैलास्ट क्लीनिंग मशीन, (बी.एस.-550) की निरीक्षण जाँचसूची एवं अनुरक्षण अनुसूची पुस्तिका।

Sub: Inspection Check List and Maintenance Schedule Manual of Shoulder Ballast Cleaning Machine (BS-550).

शोल्डर बैलास्ट क्लीनिंग मशीन, (बी.एस.-550) की निरीक्षण जाँचसूची एवं अनुरक्षण अनुसूची पुस्तिका का मसौदा और अंतिम ओईएम मैनुअल के आधार पर तैयार कर क्रमशः पत्र सं टीएम/एचएम/एस.बी.सी.एम./पार्ट-0 III दि 01.10.2020 द्वारा 30 दिनों के लिये, एवं अंतिम दि 18.11.2020 द्वारा 15 दिनों के लिये सभी क्षेत्रिय रेलवे को सुझाव/टिप्पणी हेतु जारी किया गया था। परन्तु, क्षेत्रिय रेलवे से कोई टिप्पणी प्राप्त नहीं हुई, अब उपरोक्त सूची को अंतिम रूप में तैयार किया गया है जिसकी प्रति, आपके सूचनार्थ तथा मशीन के कर्मचारियों जो फील्ड में काम कर रहे हैं के मार्गदर्शन हेतु संलग्न है। यद्यपि उपरोक्त सूची बनाते समय सभी सावधानियाँ बरती गई हैं, फिर भी यदि कोई त्रुटि हो तो कृपया अपने सुझावों/टिप्पणियों को सुधार हेतु ई-मेल/कैक्स/पत्राचार द्वारा अद्योक्तकारी को भेजें।

Drafts and provisional of Inspection Check List and Maintenance Schedule for Shoulder Ballast Cleaning Machine (BS-550) have been prepared according OEM manual and circulated vide letter no.TM/HM/SBCM/Pt-III dt. 01-10-2020 for 30 days, and dt. 18.11.2020 for 15 days respectively, but no comments received from Zonal Railways. Hence the Inspection Check List and maintenance schedule have been finalized on the basis of OEM manual.

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 said 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- [hmtmrdso@gmail.com](mailto:hmtmrdso@gmail.com)

DA: As above

Signed by Om Prakash  
 Date: 14-12-2020 17:30:20 (ओम प्रकाश)  
 Reason: Approved रेलमध मशीन-III

**I-मुख्य अभियन्ता (ट्रैक मशीन)**

- 1.0 मध्य रेलवे, सीएसटी, मुम्बई-400001
- 2.0 फेयरलीफ्लेस, पूर्वेरेलवे, कोलकाता-700001
- 3.0 बट्टीदाहाउस, उत्तररेलवे, नयी दिल्ली-110001
- 4.0 उत्तरपूर्वेरेलवे, गोरखपुर 273012
- 5.0 मालीगाँव, उत्तरपूर्वसीमान्तररेलवे, गुवाहाटी-781011
- 6.0 मार्कटाउन, दक्षिणरेलवे, चेन्नई-600003
- 7.0 रेलनिलयम्, दक्षिण मध्य रेलवे, सिकन्दराबाद-500371
- 8.0 गार्डनरीच, दक्षिणपूर्वेरेलवे, कोलकाता-700043
- 9.0 चर्चगेट, पश्चिमरेलवे, मुम्बई-400020
- 10.0 उत्तरपश्चिमरेलवे, जयपुर-302001
- 11.0 पूर्व मध्य रेलवे, हाजीपुर-844101
- 12.0 दक्षिणपश्चिमरेलवे, हुबली-580023
- 13.0 उत्तर मध्य रेलवे, इलाहाबाद-211015
- 14.0 पूर्वतटरेलवे, भुवनेश्वर-751001
- 15.0 पश्चिम मध्य रेलवे, जबलपुर-482001
- 16.0 दक्षिणपूर्व मध्य रेलवे, बिलासपुर-495004

**II- मुख्य कार्यशालाप्रबन्धक (ट्रैक मशीन)**

- 1.0 सी.पी.ओ.एच. कार्यशाला पो० धूमनगंज इलाहाबाद-221012
- 2.0 सी.पी.ओ.एच. कार्यशाला, दक्षिण मध्य रेलवे,रायनापादु, विजयवाड़ा, जिला कृष्णा, आन्ध्रप्रदेश-521241
- 3.0 सी.पी.ओ.एच.कार्यशालाए पूर्व रेलवे,भूतबागान रेलवे कालोनीए कांचरापाराएपीणएसएविजपुरए पीणओए. कांचरापाराए पश्चिमबंगाल-743145
- 4.0 मुख्य अभियन्ताएसी.पी.ओ.एच.पश्चिमरेलवे, मंडल रेलप्रबन्धक कार्यालयए चामुंडामाता मन्दिर के पासए नरोडरोडए पोस्ट. साजपुरबोधाए अहमदाबाद-382345

**III- प्रधानाचार्य भारेरे.एम.प्र.के. पीपलगाँव इलाहाबाद-211011**

**Chief Engineer (Track Machines)**

- CST, C R, Mumbai - 400001.  
Fairlie Place, E R, Kolkata-700001.  
Baroda House, N R, New Delhi-110001.  
N E R, Gorakhpur-273 012.  
Maligaon, N F R, Guwahati -781011.  
Park Town, S R, Chennai -600003.  
Rail Nilayam, SCR, Secunderabad-500371.  
Garden Reach, S E R, Kolkata-700043.  
Churchgate, W R, Mumbai-400020  
N W R, Jaipur-302001.  
E C R, Hazipur-844101  
SWR, Hubli-580023  
NCR, Allahabad-211015  
East Coast Rly, Bhubaneswar-751001  
WCR, Jabalpur-482001  
South East Central Rly, Bilaspur-495004

**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- SaijpurBogha, Ahmedabad-382345

**Principal, IRTMTC, PipalGaon, Allahabad-211011**



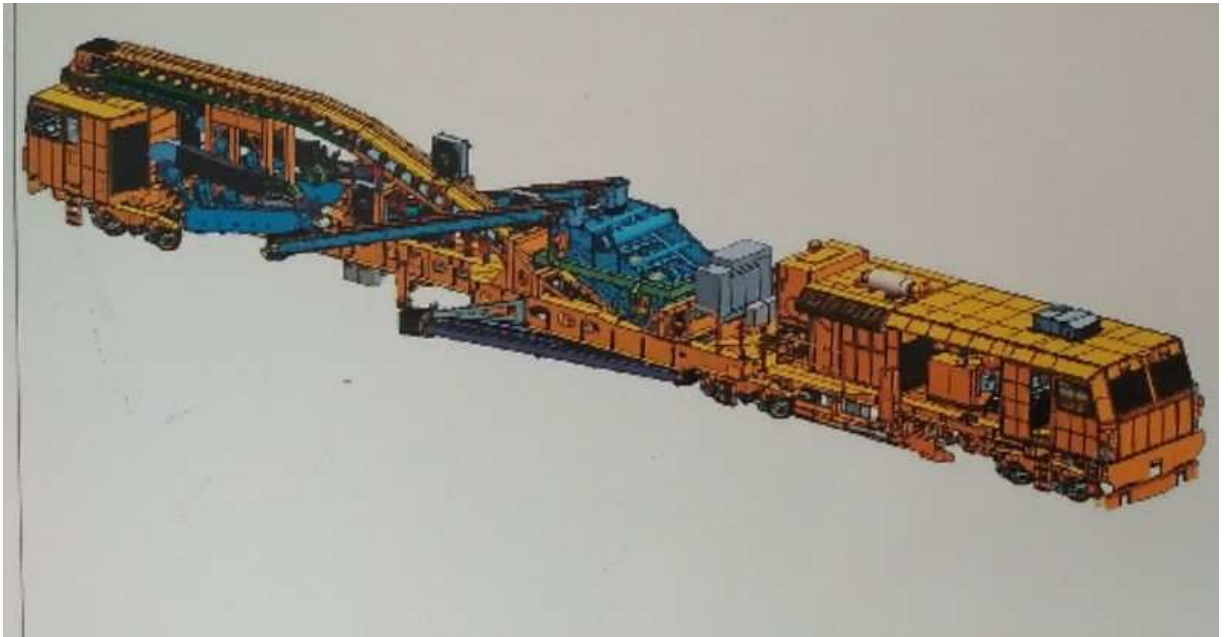
भारत सरकार  
भारतीय रेलवे  
GOVERNMENT OF INDIA  
INDIAN RAILWAYS

**सोलडर बैलास्ट क्लीनिंग मशीन बी.एस.-550  
की निरीक्षण जांच सूची  
INSPECTION CHECK LIST OF  
SHOULDER BALLAST CLEANING MACHINE (BS-550)**

रिपोर्ट संख्या: टी.एम.-241

Report No.TM -241

December-2020



**अनुसंधान अभिकल्प और मानक संगठन  
लखनऊ-226011**

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

## INSPECTION CHECK LIST OF SHOULDER BALLAST CLEANING MACHINE (BS-550)

**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 :**

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

S. No.	I t e m s	Prevailing Condition	
1.17	General cleanliness of the machine.	Ok <input type="checkbox"/>	To be cleaned <input type="checkbox"/>
1.18	Function of all locking devices.	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
1.19	Condition of camping coach.	Satisfactory <input type="checkbox"/>	Poor <input type="checkbox"/>
1.20	Condition of machine base stabling siding.	Satisfactory <input type="checkbox"/>	Poor <input type="checkbox"/>
1.21	Condition of rest house at stabling station if available.	Satisfactory <input type="checkbox"/>	Poor <input type="checkbox"/>
1.22	Provision of water & electric supply at stabling station.	Available <input type="checkbox"/>	Not available <input type="checkbox"/>
1.23	Pre and Post work for ballast cleaning operation being done.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
1.24	Back-up system of machine.	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
1.25	Condition of tools & plants (spanner, wrench etc.)	Ok <input type="checkbox"/>	To be replaced <input type="checkbox"/>
1.26	Material available at site {as per critical spares parts list of SBCM (BS-550) issued by RDSO/LKO}.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
1.27	Condition of Genset/Welding Plant.	Ok <input type="checkbox"/>	To be attend <input type="checkbox"/>

**History of Machine:**-----  
-----  
-----  
-----  
-----  
-----  
-----  
-----  
-----  
-----

Sr. no.	Items	Prevailing Conditions Caterpillar C-18 (330kW /571hp) @2100rpm	
<b>2.0</b>	<b>ENGINE</b>		
2.1	Engine hours on date. -	DT. _____ ERH	
2.2	Last top overhauling of the Engine if done.	Dated _____	.....ERH
2.3	Last repair / change of Self-starter.	Dated _____	.....ERH
2.4	Last repair / change of Alternator.	Dated _____	.....ERH
2.5	Last repair / change of Air compressor.	Dated _____	.....ERH
2.6	Starting problem.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2.7	Condition of smoke.	White <input type="checkbox"/> Normal <input type="checkbox"/>	Black <input type="checkbox"/>
2.8	Leakage in Head gasket.	Yes <input type="checkbox"/> Head no. ....	No <input type="checkbox"/>
2.9	V-Belts condition and tension	Ok <input type="checkbox"/>	To be tightened <input type="checkbox"/>
2.10	Fire detector sensor	Ok <input type="checkbox"/>	need attention <input type="checkbox"/>
2.11	RPM of the Engine (Rated -2100).	Actual-----	
2.12	Water/coolant level in radiator	Ok <input type="checkbox"/>	need to top up <input type="checkbox"/>
2.13	Change of air cleaner filters. (1000 Hrs duration)	Dated -----	ERH -----
2.14	Change of engine oil. (500 Hrs duration)	done <input type="checkbox"/>	Not done <input type="checkbox"/>
2.15	Change of lub. oil filters. (500Hrs duration)	done <input type="checkbox"/>	Not done <input type="checkbox"/>
2.16	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"/>
2.17	Engine temperature after two hours working	.....°C	



Sr. no.	Items	Prevailing Conditions Caterpillar C-18	
		Yes <input type="checkbox"/>	No <input type="checkbox"/>
2.18	Any abnormal sound	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2.19	Engine high temperature safety circuit	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2.20	Engine oil pressure safety circuit.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2.21	Condition of engine hoses.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2.22	Overall condition of engine	Ok <input type="checkbox"/>	Not satisfactory <input type="checkbox"/>
2.23	<b>Working Gauges</b>	<b>Front cabin</b>	<b>Rear cabin</b>
	Engine RPM	Ok <input type="checkbox"/> No <input type="checkbox"/>	Ok <input type="checkbox"/> No <input type="checkbox"/>
	Lub. Oil & Hyd. oil Pressure	Ok <input type="checkbox"/> No <input type="checkbox"/>	Ok <input type="checkbox"/> No <input type="checkbox"/>
	Lub. oil temp.	Ok <input type="checkbox"/> No <input type="checkbox"/>	Ok <input type="checkbox"/> No <input type="checkbox"/>
	Speedometer	Ok <input type="checkbox"/> No <input type="checkbox"/>	Ok <input type="checkbox"/> No <input type="checkbox"/>
	Pneumatic pressuregauge	Ok <input type="checkbox"/> No <input type="checkbox"/>	Ok <input type="checkbox"/> No <input type="checkbox"/>
	Hydraulic oil level gauge	Ok <input type="checkbox"/> No <input type="checkbox"/>	Ok <input type="checkbox"/> No <input type="checkbox"/>
	Hydraulic oil temperature gauge	Ok <input type="checkbox"/> No <input type="checkbox"/>	Ok <input type="checkbox"/> No <input type="checkbox"/>
	Driving pressure gauge	Ok <input type="checkbox"/> No <input type="checkbox"/>	Ok <input type="checkbox"/> No <input type="checkbox"/>
	Charge pressure gauge	Ok <input type="checkbox"/> No <input type="checkbox"/>	Ok <input type="checkbox"/> No <input type="checkbox"/>
2.24	Condition of battery terminals	Ok <input type="checkbox"/> Not satisfactory	<input type="checkbox"/>
2.25	Battery charging system	Ok <input type="checkbox"/> Not satisfactory	<input type="checkbox"/>
2.26	Condition of batteries	Ok <input type="checkbox"/> Not satisfactory	<input type="checkbox"/>
2.27	Electrolyte level in batteries (Plates should be embedded in electrolyte)	Ok <input type="checkbox"/> Not satisfactory	<input type="checkbox"/>
2.28	Specific gravity of electrolyte (min 1240)	Ok <input type="checkbox"/> Not satisfactory	<input type="checkbox"/>
2.29	Function of Hy. powered air compressor	Ok <input type="checkbox"/> Not satisfactory	<input type="checkbox"/>
2.30	Condition of radiators	Ok <input type="checkbox"/> Not satisfactory	<input type="checkbox"/>

Remarks-----

S. No.	Items	Prevailing Condition	
<b>CAT- GENERATOR ENGINE (DE 22-E3) 20kVA</b>			
2.31	Engine hours on date	Date- _____	ERH
2.32	Last top overhauling of the Engine if done	Dated _____	ERH
2.33	Starting problem	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2.34	Condition of smoke	White <input type="checkbox"/> Normal <input type="checkbox"/>	Black <input type="checkbox"/>
2.35	Leakage in Head gasket	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2.36	V-Belt condition and tension	Ok <input type="checkbox"/>	To be tightened <input type="checkbox"/>
2.37	Condition of radiator	Cleaned <input type="checkbox"/>	To be cleaned <input type="checkbox"/>
2.38	RPM of the Engine (Rated 2100)	Actual-----	
2.39	Change of Air Cleaner filters (500 Hrs duration)	Dated <input type="checkbox"/>	ERH <input type="checkbox"/>
2.40	Change of engine oil R3 15W40 CH-4 (500Hrs duration)	done <input type="checkbox"/>	Not done <input type="checkbox"/>
2.41	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"/>
2.42	Engine temperature after two hours working	.....°C	
2.43	Any abnormal sound	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2.44	Overall condition of engine	Ok <input type="checkbox"/>	Not satisfactory <input type="checkbox"/>
2.45	Condition of generator	Ok <input type="checkbox"/>	Not satisfactory <input type="checkbox"/>
2.46	Condition of battery (12 volts, 100 amps)	Ok <input type="checkbox"/>	Need attention <input type="checkbox"/>
S. No.	Items	Agent / Description	Prevailing Condition
<b>3.0 OIL LEVELS</b>			
3.1	Hydraulic oil	Shell Tellus oil T68	OK <input type="checkbox"/> Need top up <input type="checkbox"/>
3.2	Diesel tank	HSD	OK <input type="checkbox"/> Need top up <input type="checkbox"/>
3.3	Axle gear box	S6 GXME 75W-80 API GL-5	OK <input type="checkbox"/> Need top up <input type="checkbox"/>



295566/2020/O/o PED/TMM/RDSO

S. No.	Items	Agent / Description	Prevailing Condition	
3.4	Transfer case	Gear oi-Glygoyle 30	OK <input type="checkbox"/>	Need top up <input type="checkbox"/>
3.5	Engine lube oil	Shell R4L-15W-40(CI-4)	OK <input type="checkbox"/>	Need top up <input type="checkbox"/>
3.6	Conveyor gear box	SHELL TELLUS OIL T68	OK <input type="checkbox"/>	Need top up <input type="checkbox"/>
3.7	Drive bearing box of the excavation device	SHELL TELLUS OIL T68	OK <input type="checkbox"/>	Need top up <input type="checkbox"/>
3.8	Hyd. drive air compressor gear box	Lub oil: R6 LM 10W-40	OK <input type="checkbox"/>	Need top up <input type="checkbox"/>
3.9	Vibration drum	SHELL TELLUS OIL T68	OK <input type="checkbox"/>	Need top up <input type="checkbox"/>
3.10	Generator Engine oil	R3 15W-40 CH-4	OK <input type="checkbox"/>	Need top up <input type="checkbox"/>
<b>4.0</b>	<b>POWER TRANSMISSION:</b>			
4.1	Oil leakage in gear boxes	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
4.2	Play in universal joint	Ok <input type="checkbox"/>	To be attended	<input type="checkbox"/>
4.3	Clutch adjustment	Ok <input type="checkbox"/>	To be adjusted	<input type="checkbox"/>
4.4	Greasing of all Cardon shaft	done <input type="checkbox"/>	Not done	<input type="checkbox"/>
4.5	Greasing of Disengager/corner below housing.	Ok <input type="checkbox"/>	Not satisfactory	<input type="checkbox"/>
4.6	Condition of master cylinder of clutches	Ok <input type="checkbox"/>	Not satisfactory	<input type="checkbox"/>
4.7	Clutch oil level	Ok <input type="checkbox"/>	Needtop up	<input type="checkbox"/>
<b>5.0</b>	<b>EXCAVATION DEVICE:</b>			
5.1	Wear loss of wear plate on running surface of excavating chain.	Ok <input type="checkbox"/>	To be done	<input type="checkbox"/>
5.2	Condition of of slot assembly in excavation chain.	Ok <input type="checkbox"/>	To be done	<input type="checkbox"/>
5.3	Condition of guide slot for excavation device.	Satisfactory <input type="checkbox"/>	No. ....	
5.4	Radial wear loss of mounting pin rolls at both ends of the cylinder	Ok <input type="checkbox"/>	To be attended	<input type="checkbox"/>
5.5	Condition of safety chain.	Ok <input type="checkbox"/>	Not satisfactory	<input type="checkbox"/>

Remark :-----

S. No.	Items	Prevailing Condition	
5.6	Condition of excavating chain & fingers.	Ok <input type="checkbox"/>	To be replaced <input type="checkbox"/>
5.7	Check the bucket teeth for missing or broken.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
5.8	Condition of mixed ballast conveyor belt	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
5.9	Check for loose or missing in its frame.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
5.10	Check the condition of all rollers and carriers rollers of all the conveyor belts	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
5.11	Check all scrapers of all conveyor for proper setting and working.	Ok <input type="checkbox"/>	To be adjusted <input type="checkbox"/>
<b>6.0</b>	<b>SCREENING DEVICES&amp; DISTRIBUTOR:</b>		
6.1	Condition of ballast shunt device.	Ok <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>
6.2	Vibration of the screening unit.	Ok <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>
6.3	Greasing of screen support plates.	Ok <input type="checkbox"/>	To be done <input type="checkbox"/>
6.4	Condition of screen meshes & shunt device plates.	Ok <input type="checkbox"/>	To be replaced <input type="checkbox"/>
6.5	Condition of upper and lower ballast guide plates.	Ok <input type="checkbox"/>	To be replaced <input type="checkbox"/>
6.6	Condition of rubber springs.	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"/>
6.8	Condition of Vibrating screen supports	Ok <input type="checkbox"/>	To be adjusted <input type="checkbox"/>
6.9	Adjusting device of vibrating screen	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
<b>7.0</b>	<b>BACKFILL CONVEYOR BELT</b>		
7.1	Condition of Backfill Conveyor Belt	Ok <input type="checkbox"/>	Not satisfactory <input type="checkbox"/>
7.2	Condition of belt, supporting rollers & supports.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
7.3	Condition of rubber ring of idler roller.	Ok <input type="checkbox"/>	To be replaced <input type="checkbox"/>
7.4	Condition of driven roller	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
<b>8.0</b>	<b>SPOIL CONVEYOR BELT</b>		
8.1	Condition of belt, supporting rollers & supports.	Ok <input type="checkbox"/>	Not satisfactory <input type="checkbox"/>
8.2	Condition of rubber ring of idler roller.	Ok <input type="checkbox"/>	To be replaced <input type="checkbox"/>
8.3	Condition of driven roller	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>

S. No.	I t e m s	Prevailing Condition	
9.0	ROTARY BALLAST THROWING BELT		
9.1	Condition of belt (EP300), supporting rollers & supports	Ok <input type="checkbox"/>	Not satisfactory <input type="checkbox"/>
9.2	Condition of rubber ring of idler roller.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
9.3	Condition of driven roller	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
10.0	SIDE PLOUGH & SLEEPER END PLOUGH UNIT		
10.1	Condition of components in telescopic cylinder	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
10.2	Condition/wear loss of wearing plate	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
10.3	Condition of cylinders ,pins,rollers and pin sleeves	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
10.4	Condition of locking system	Ok <input type="checkbox"/>	Not satisfactory <input type="checkbox"/>
10.5	Condition of rear &out board cylinder, pin, rotating plates	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
10.6	Lubrication of outer surface of the lift-lower and traversing inner sleeves.	Ok <input type="checkbox"/>	To be done <input type="checkbox"/>
10.7	Check for any Hyd. leakages	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
11.0	COMPACTING DEVICE		
11.1	Check for any split pin, washer or bolt loose or missing.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
11.2	Check for any cracks, sag, deformation in the components.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
11.3	Check the condition of Hyd. system	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
11.4	Check its locking devices.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
11.5	Condition of Vibrating motor	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
11.6	Condition of Radial rubber damper.	Ok <input type="checkbox"/>	To be replaced <input type="checkbox"/>
12.0	SWEEPER UNIT		
12.1	Condition of frame of the sweeper unit.	Ok <input type="checkbox"/>	Not satisfactory <input type="checkbox"/>
12.2	Check for any cracks at weld joints, deformation etc.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
12.3	Condition of wear resisting plate and side plate of the rod	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
12.4	Condition of Brushes (middle/side), rubber rods and wear plates	Ok <input type="checkbox"/>	Not satisfactory <input type="checkbox"/>
12.5	Check the condition of its Hyd. system	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
12.6	Condition of its locking system.	Ok <input type="checkbox"/>	Not satisfactory <input type="checkbox"/>

295566/2020/S/O PED/TMM/RDSO

S. No.	Item	Prevailing Condition	
<b>13.0</b>	<b>HYDRAULIC AND PNEUMATIC PRESSURE&amp; TEMPERATURE</b>		
13.1	Transit drive pressure (Max. <sup>m</sup> 380 bar)	Ok <input type="checkbox"/>	To be adjusted <input type="checkbox"/>
13.2	Chain drive pressure (Max. <sup>m</sup> 340 bar)	Ok <input type="checkbox"/>	To be adjusted <input type="checkbox"/>
13.3	Vibration pressure (Max. <sup>m</sup> 340 bar)	Ok <input type="checkbox"/>	To be adjusted <input type="checkbox"/>
13.4	Conveyor belt pressure (Max. <sup>m</sup> 200 bar)	Ok <input type="checkbox"/>	To be adjusted <input type="checkbox"/>
13.5	Cooler pressure (Max. <sup>m</sup> 120 bar)	Ok <input type="checkbox"/>	To be adjusted <input type="checkbox"/>
13.6	Maximum Hydraulic oil temperature during work (below than 80 °c)	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
13.7	Pneumatic pressure (Max. <sup>m</sup> 7 bar)	Ok <input type="checkbox"/>	To be adjusted <input type="checkbox"/>
<b>14.0</b>	<b>ELECTRICAL AND ELECTRONICS</b>		
14.1	Condition of working light, Head light, Tail light and other light, fans.	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
14.2	Emergency stop button/switches.	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
14.3	Audible warning system.	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
14.4	Both sides lasher lights.	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
14.5	Hooter	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
14.6	Working of Electric Horns	Ok <input type="checkbox"/>	Need attention <input type="checkbox"/>
14.7	Condition of switches, solenoids & wires cables.	Ok <input type="checkbox"/>	Need attention <input type="checkbox"/>
14.8	Defective/Released PCB available with machine	Part no .....	
<b>15.0</b>	<b>PNEUMATICS</b>		
15.1	Condition and clearance of brake shoes.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
15.2	Condition of Pn. Unloader valve.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
15.3	Condition of pneumatic plough cylinder	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
15.4	Condition of KE valve (indirect brake)	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
15.5	Pneumatic horn	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
15.6	Pneumatic lubricator	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
15.7	Condition of all Pn. cylinders.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>

S. No.	I t e m s	Prevailing Condition	
16.0	UNDER FRAME INSPECTION		
16.1	UNDER FRAME		
16.1.1	Visual Inspection of centre pivot cover mounting Bolts and Mounting of Suspension system ,Bogie Frame etc.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
16.1.2	Examine the shock absorber head stock/sole bar of centre buffer Coupler for damages.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
16.2	BOGIE FRAME & WHEELS		
16.2.1	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"/>
16.2.2	Visual Inspection of wheels and under gear for any infringement.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
16.2.3	Visually inspect all the welding locations & suspension brackets.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
16.3	Brake Rigging		
16.3.1	Visually check the rubbing plates.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
16.3.2	Examine brake beams breakages/ damages.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
16.3.3	Inspection of Brake hanger bracket , torque support , cardan shaft hanger brackets for damages	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
16.4	Draw Gear		
16.4.1	Check condition of the screwcoupling/CBC coupling and replace if at any section on draw hook should not exceed 10 mm	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
16.4.2	Examine draw hook draw bars, rubber pads for damages, torque support rubbers.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
16.4.3	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"/>

295566/2020/O/o PED/TMM/RDSO

S. No.	I t e m s	Prevailing Condition	
<b>16.5</b>	<b>Buffing Gear</b>		
16.5.1	Visually examine the wheel tyre profile and crack&examine the buffers casing for cracks/damages	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
16.5.2	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"/>
<b>17.0</b>	<b>STAFF</b>		
17.1	Strength of staff as per IRTMM (Second Edition)-2017	Full <input type="checkbox"/>	Deficient <input type="checkbox"/>
17.2	Safety awareness	Excellent <input type="checkbox"/> Good <input type="checkbox"/>	Very good <input type="checkbox"/> Average <input type="checkbox"/>
17.3	Staff due for Medical	.....	
17.4	Staff due for training	.....	Overdue <input type="checkbox"/>
17.5	Competency certificate of the Operator	Current <input type="checkbox"/>	Expired <input type="checkbox"/>
17.6	Staff availing rest on due date	Yes <input type="checkbox"/>	No <input type="checkbox"/>
17.7	Staff amenities as per up to date IRTMM (Second Edition)-2017	Satisfactory <input type="checkbox"/>	Poor <input type="checkbox"/>
<b>18.0</b>	<b>SAFETY ITEMS</b>		
18.1	Safety equipment as per Annexure-I	Available <input type="checkbox"/>	Deficient <input type="checkbox"/>
18.2	Working of safety Emergency Braking System of the machine	Ok <input type="checkbox"/>	Defective <input type="checkbox"/>
18.3	Fire extinguisher	Current <input type="checkbox"/>	Expired (Date.....) <input type="checkbox"/>
18.4	Ultrasonic testing of axles of machine shall be done between 40,000 to 45,000 kms of running or three years, whichever is earlier.	Done <input type="checkbox"/>	Not done <input type="checkbox"/>

Remark :-.....

.....

.....

.....

.....

Date.....

Signature of inspecting officer

List of Safety Equipments

Sr. No.	Description	Quantity	Available Yes (✓) / No (x)
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 Traverse 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 of Shoulder Ballast Cleaning Machine (BS-550)

### RAILWAYS:-

### RDSO:-

- |                         |        |
|-------------------------|--------|
| 1. Shri Muslim Ahmad    | ARE/TM |
| 2. Shri V.P. Srivastava | SSE/TM |