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 भारत सरकार - रेल मंत्रालय Government of India-Ministry of Railways
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Date: 07.12.2020

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Detailed addresses are enclosed herewith.

विषय: सोलडर 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).

सोलडर 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-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/फैक्स/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.
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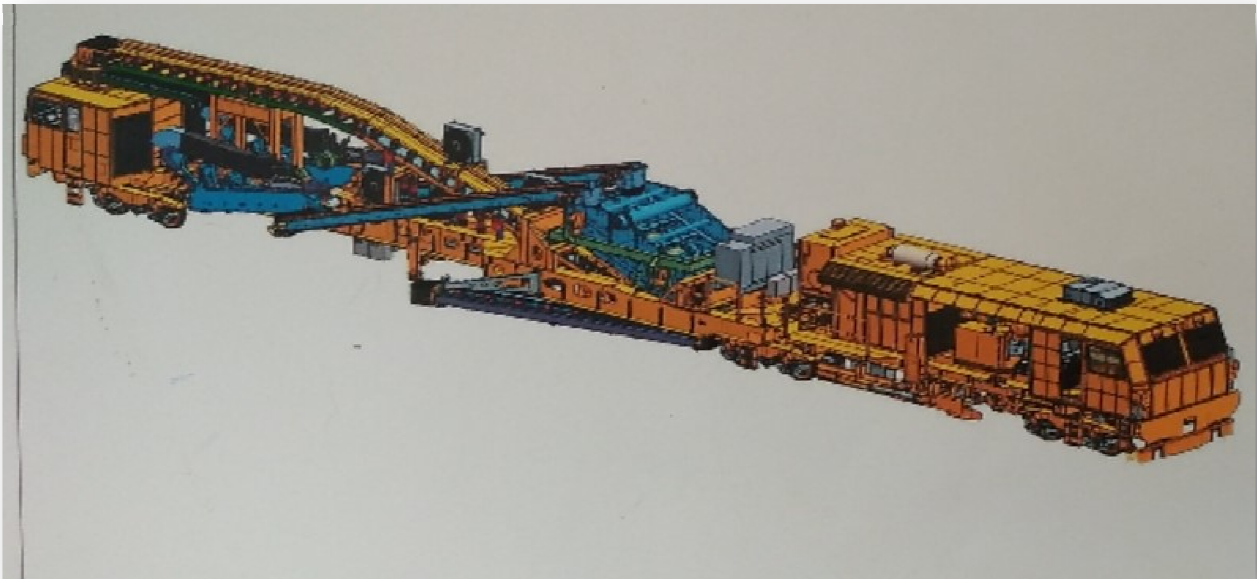
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भारत सरकार
रेल मंत्रालय
GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS

**MAINTENANCE SCHEDULE MANUAL
OF
SHOULDER BALLAST CLEANING MACHINE
(BS-550)**



**Report No. TM –240
December-2020**

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PREFACE

Maintenance of On-Track Machines is a challenging task. Maintenance of these machines is being done by Zonal Railways with the assistance of local trade available, Zonal Track Machine Workshops, CPOH / Allahabad, Rayanapadu, Kachrapara & Ahmedabad and RDSO / Lucknow. With experience over the years, the railway engineers have developed adequate expertise in the maintenance of these machines. However, in absence of approved maintenance instructions, different maintenance practices have come into vogue. Therefore, it has become imperative to have a uniform maintenance standard throughout the Indian Railways.

Maintenance schedule manual for Shoulder Ballast Cleaning Machine (BS-550) has been prepared on the basis of maintenance instruction given by OEM. Suggestion/instruction given by OEM from time to time should also be followed in addition to instruction given in this manual. The manual is prepared for those items which is required day to day maintenance. Apart from these instruction if any part of machine fails/breakdown that shall be attended immediately by the railway. The oiling and greasing shall be done of every moving parts where as required in addition to manual depending on discretion of machine in charge. Sometime machines are modified/alterd on the basis of experience or OEM suggestion that shall be also undertaken in the maintenance practice. If the Engine of machine is under AMC then instruction/maintenance schedule of repairing/alteration of Engine may be followed as per term and condition of this manual.

While every care has been taken to make the maintenance schedules quite exhaustive, there is always scope for further improvement. Suggestions from the railways in this regard will be welcome and may be sent to the undersigned for future improvement.

December -2020

(Om Prakash)
Director/Track Machine-III
RDSO/Lucknow-226011

EXPLANTORY NOTES

While preparing text of schedules for maintenance of Shoulder Ballast Cleaning Machine (BS-550), the terms used and their meanings are explained below:-

CHECK - Ensure a specific condition does (or does not) exist.

INSPECT - Look for damage and defects including breakage, distortion, Cracks, Corrosion and wear, check for leaks, security and that all items are completed.

CHANGE - Fit new or overhauled or reconditioned part in place of old parts and missing parts.

OVERHAUL - Dismantle, examine, recondition or renew parts as necessary against given specifications, reassemble, inspect and test.

Maintenance Schedule of Shoulder Ballast Cleaning Machine (BS-550).

S. N	Schedule	Periodicity	Duration	Location
1.	Schedule I	Daily/ before working and running	One hour	In the track Machine siding
2.	Schedule II	50 Engine hrs.	Two hrs.	-do-
3.	Schedule III	100 Engine hrs.	One day	-do-
4.	Schedule IV	200 Engine hrs.	Two days	-do-
5.	Schedule V	1000 Engine hrs.	7 days	In Satellite Depot/Zonal Workshop
6.	Schedule VI IOH	2000 Engine hrs.	45 days	In Zonal Workshop
7.	Schedule VII CPOH	1 st 8000 Engine hrs. 2 st 14000 Engine hrs.	1st POH-90 days, 2nd POH-105 days	CPOH Workshop

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S. N.	ITEM	SCH.I Daily	SCH.II 50HRS.	SCH.III 100 HRS.	SCH.IV 200 HRS.	SCH.V 1000 HRS.	SCH.VI 2000HRS .	SCH.VII 8000/6000 HRS.
1.0 ENGINE MODEL NO. Caterpillar C-18(571 Kw @2100 rpm)& Generator Engine Caterpillar DE 22E3(20KVA, AC 380v/220v and 50Hz)								
1.1	Visual check fuel tank level and top up if required.	√	x	x	x	x	x	x
1.2	Visual Check the leakage from fuel supply and do needful.	√	x	x	x	x	x	x
1.3	Clean the engine and premises.	√	x	x	x	x	x	x
1.4	Check engine lube oil level, top up if required.	√	x	x	x	x	x	x
1.5	Check the condition& mounting of elastic coupling of engine power output.	√	x	x	x	x	x	x
1.6	Check cooling agent levels.	√	x	x	x	x	x	x
1.7	Check the battery charging system.	√	x	x	x	x	x	x
1.8	Visual check the tension after (15 minutes working) and condition of V-belts and do needful.	√	x	x	x	x	x	x
1.9	Open and clean dust collector/pan of air cleaners.	√	x	x	x	x	x	x
1.10	Check the fins of engines radiator.	√	x	x	x	x	x	x
1.11	Visual check the air cleaner chocking indicator. If indicator is red, The outer filter is to be cleaned by dry air.	√	x	x	x	x	x	x
1.12	Check the engine oil pressure at idle.	√	x	x	x	x	x	x
1.13	Check engine oil pressure on load after two hours working.	√	x	x	x	x	x	x
1.14	Check speed regulation, starting and stopping of the engine.	√	x	x	x	x	x	x
1.15	Check whether the oil pressure and the cylinder body temperature shown on the instrument are within the normal range.	√	x	x	x	x	x	x
1.16	Check no alarm on the display panel. If there is an alarm, check the corresponding elements for the region.	√	x	x	x	x	x	x
1.17	Drain all air receiver	√	x	x	x	x	x	x
1.18	Check battery electrolyte level, terminals and connection for tightness&. apply petroleum jelly on battery terminals	x	√	x	x	x	x	x

S. N.	ITEM	SCH.I Daily	SCH.II 50HRS.	SCH.III 100HRS.	SCH.IV 200 HRS.	SCH.V 1000HRS.	SCH.VI 2000HRS.	SCH.VII 8000/6000 HRS.
1.19	Check all hose lines for proper clamping.	x	√	x	x	x	x	x
1.20	Check the tightness of the bolts power output shaft of the engine.	x	√	x	x	x	x	x
1.21	Change engine oil.((First time oil. change at 100 hrs. and after that at every 500 hrs.)Shell R4L-15W-40(CI-4)	x	x	√*	√*	x	x	x
1.22	Replace lub. oil filters. (First time lub. oil filters change at 250 hrs and after that at every 500 hrs)	x	x	√*	√*	x	x	x
1.23	Change diesel fuel filters Primary & Secondary. (First time change fuel filters after 250 hrs and after that at every 500 hrs)	x	x	√*	√*	x	x	x
1.24	Check engine temperature safety device.	x	x	√	x	x	x	x
1.25	Check lube oil pressure safety device.	x	x	√	x	x	x	x
1.26	Check whether the start motor is firmly installed without losing or falling off.	x	x	√	x	x	x	x
1.27	Check whether the rubber damper of the installation support for the diesel engine has no crack and whether all mounting bolts are fastened without any missing bolt	x	x	√	x	x	x	x
1.28	Inspect the water separator for proper functioning of fuel system.	x	x	√	x	x	x	x
1.29	Clean the outer air cleaner element.	x	x	x	√	x	x	x
1.30	Replace V-Belts on condition basis.	x	x	x	√	x	x	x
1.31	Clean outer air cleaner element.	x	x	x	√	x	x	x
1.32	Check fuel tank breather and clean if required.	x	x	x	√	x	x	x
1.33	Check specific gravity of battery electrolyte if applicable.	x	x	x	√	x	x	x
1.34	Replace the outer and inner engine air cleaner element.	x	x	x	x	√	x	x
1.35	Change aeration filters of fuel tanks.	x	x	x	x	√	x	x
1.36	Clean the crank case breather element.	x	x	x	x	√	x	x
1.37	Clean the diesel tank with lint free cloth.	x	x	x	x	√	x	x
1.38	Replace minor repair kit for both air compressors.	x	x	x	x	√	x	x
1.39	Lubricate the accelerating mechanism with oil.	x	x	x	x	√	x	x
1.40	Check high pressure fuel pipes lines.	x	x	x	x	√	x	x
* Done after every 500 Engine hours								

S. N.	ITEM	SCH.I Daily	SCH.II 50HRS.	SCH.III 100HRS.	SCH.IV 200 HRS.	SCH.V 1000HRS.	SCH.VI 2000HRS.	SCH.VII 8000/6000 HRS.
1.41	Check the air compressor (By hyd. drive) for elastic support.	x	x	x	x	√	x	x
1.42	Replace filter cartridge air compressor (By hyd. drive)	x	x	x	x	√	x	x
1.43	Change the batteries on condition basis.	x	x	x	x	√	x	x
1.44	Overhaul or replace self-starter on condition basis.	x	x	x	x	√	x	x
1.45	Overhaul or replace all alternators.	x	x	x	x	√	x	x
1.46	Check turbo charge of the engine.	x	x	x	x	x	√	x
1.47	Check the both air compressors. Overhaul if necessary.	x	x	x	x	x	√	x
1.48	Check anti vibration mounting pads of the engines and hyd. Drive compressor change if required.	x	x	x	x	x	√	x
1.49	Overhaul or replace the engine.	x	x	x	x	x	x	√
1.50	Check or replace the exhaust manifold for any defect and clean the same.	x	x	x	x	x	x	√
1.51	Change all the high pressure fuel pipes, pipe clamp, flexible fuel hoses and rubber hoses.	x	x	x	x	x	x	√
1.52	Change air inlet hoses.	x	x	x	x	x	x	√
	Generator							
1.53	Check fuel, lub. oil & radiator coolant level & leakages.	√	x	x	x	x	x	x
1.54	Check radiator, air cleaner & all mounting for proper fittings.	√	x	x	x	x	x	x
1.55	Clean the air filter housing and remove dust from cup.	√	x	x	x	x	x	x
1.56	Check lub. oil pressure & water temperature.	√	x	x	x	x	x	x
1.57	Replace the engine lub. oil.R3 15W40 CH-4(First time change at 250 hrs and after that at every 500 hrs)	x	x	√*	√*	x	x	x
1.58	Replace the engine lub. oil filter. (First time change at 250 hrs. and after that at every 500 hrs)	x	x	√*	√*	x	x	x
1.59	Replace the fuel filter. (First time change at 250 hrs. and after that at every 500 hrs)	x	x	√*	√*	x	x	x
1.60	Check the output of generator for proper function.	x	x	x	√	x	x	x
1.61	Over/repair the generator.	x	x	x	x	√	x	x

Note: Final decision for maintenance of engine may be followed as per OEM guide lines of engine manual. Maintenance of engine shall be exercise as per advice by OEM time to time.

S. N.	ITEM	SCH.I Daily	SCH.II 50HRS.	SCH.III 100HRS.	SCH.IV 200 HRS.	SCH.V 1000HRS.	SCH.VI 2000HRS.	SCH.VII 8000/6000 HRS.
2.0 HYDRAULIC								
2.1	Check hydraulic oil level in tanks and top up if less than 2/3 of the upper oil window.(Hyd. oil T-68)	√	x	x	x	x	x	x
2.2	Check the Hyd. Tank mounting bolts, upper breathing filter is ok.	√	x	x	x	x	x	x
2.3	Check all high pressure filter of working pump & all filters for no alarm.	√	x	x	x	x	x	x
2.4	Check leakages of all Hyd. cylinders and do needful.	√	x	x	x	x	x	x
2.5	Record the maximum temp. of hydraulic fluid during the day's work.	√	x	x	x	x	x	x
2.6	Visual check filters chocking indication if provided.	√	x	x	x	x	x	x
2.7	Check oil level in vibration screen drum.	√	x	x	x	x	x	x
2.8	Check for any rubbing of hoses & loose clamping etc. and correctit.	√	x	x	x	x	x	x
2.9	Check hydraulic system operating pressure.	√	x	x	x	x	x	x
2.10	First time change the vibration drum gear box filter 50 hrs.	x	√	x	x	x	x	x
2.11	Check the all hydraulic valves, Pumps, Motors for any leakage & defects.	x	√	x	x	x	x	x
2.12	Check & clean the surfaces radiator for the hydraulic oil and the lubricating oil of the main gear box.	x	√	x	x	x	x	x
2.13	Check that the fan of the hyd. radiator is firmly installed.	x	√	x	x	x	x	x
2.14	Clean the slots next to the joint of the hydraulic cylinders	x	√	x	x	x	x	x
2.15	Check & lubricate all hyd. cylinders piston rod, bolts, joints & cover plate.	x	√	x	x	x	x	x
2.16	Visual check and lubrication the side support bearing of screen units.	x	x	√	x	x	x	x
2.17	Check the condition and position of the hydraulic hoses.	x	x	√	x	x	x	x
2.18	Check the mountings bolts of the oil filter, return oil filter, breathing apparatus.	x	x	√	x	x	x	x
2.19	Check all pressure controls for rated settings.	x	x	x	√	x	x	x
2.20	Clean fins of hydraulic oil cooler with high-pressure air. .	x	x	x	√	x	x	x
2.21	Check and clean breathing filter of hydraulic tank.	x	x	x	√	x	x	x
2.22	Replace high pressure filter & suction filters.	x	x	x	x	√	x	x
2.23	Replace all Hydraulic Return filters.	x	x	x	x	√	x	x
2.24	Visual check and clean screen drive ventilation filter.	x	x	x	x	√	x	x

S. N.	ITEM	SCH.I Daily	SCH.II 50HRS.	SCH.III 100HRS.	SCH.IV 200 HRS.	SCH.V 1000HRS.	SCH.VI 2000HRS.	SCH.VII 8000/6000 HRS.
2.25	Test hydraulic oil for quality (viscosity) and Clean the hydraulic tank before changing hyd. oil if required.	x	x	x	x	√	x	x
2.26	Replace all breather filters.	x	x	x	x	√	x	x
2.27	Clean the hydraulic oil cooler externally.	x	x	x	x	√	x	x
2.28	Replace the seals of all hydraulic cylinders along with gland bushes & piston rings/seals.	x	x	x	x	√	x	x
2.29	Send sample of hydraulic oil for physical & chemical test.	x	x	x	x	√	x	x
2.30	Check the hydraulic motors & pumps for proper function and do needful.	x	x	x	x	x	√	x
2.31	Check the D.C. valves for hyd. oil leakage and do needful.	x	x	x	x	x	√	x
2.32	Check/adjust all pressure settings.	x	x	x	x	x	√	x
2.33	Check hydraulic accumulator pressure	x	x	x	x	x	√	x
2.34	Check all the stop cocks and flow control valves and change if required.	x	x	x	x	x	x	√
2.35	Replace all the hydraulic hoses along-with clamps as required.	x	x	x	x	x	x	√
2.36	Check all hydraulic cylinders, change/repair on need basis.	x	x	x	x	x	x	√
2.37	Replace all pump, motors on need basis	x	x	x	x	x	x	√
2.38	Change hydraulic oil if found unserviceable after cleaning tank.	x	x	x	x	x	x	√

S. N.	ITEM	SCH.I Daily	SCH.II 50HRS.	SCH.III 100HRS.	SCH.IV 200 HRS.	SCH.V 1000HRS.	SCH.VI 2000HRS.	SCH.VII 8000/6000 HRS.
3.0 MECHANICAL								
3.1	Check proper locking of all units.	√	x	x	x	x	x	x
3.2	Check whether any bolt is loose or missing of both sides excavation device	√	x	x	x	x	x	x
3.3	There is no crack at weld joints between the structural components or components of each part, and there is no obvious sag, deformation and other flaws on the structural components Excavation Device	√	x	x	x	x	x	x
3.4	Check whether the lifting of the excavation device, the horizontal movement of the excavation device, the lifting of the digger, the tensioning of the drive gear, the swing of the outside and inside ballast plates are flexible and accurate	√	x	x	x	x	x	x
3.5	Check the lock and abrasion of the connecting shaft, bolt and nut of all the excavation chains, and check whether the lock washer of the round nut is sound of both sides excavation chains.	√	x	x	x	x	x	x
3.6	Check the number and abrasion of bucket teeth, and replace any missing, broken or over worn tooth.	√	x	x	x	x	x	x
3.7	Check whether the safety chain, turnbuckle and airlock for the guide groove of the excavation device is sound and can function normally.	√	x	x	x	x	x	x
3.8	Check whether stress bearing positions (such as welding seams at the connection of the oil cylinder of excavation device and bend angles) have crack; weld any found crack and sealing off.	√	x	x	x	x	x	x
3.9	Clean the belt, check whether any substance gets stuck between the sweeper and the baffle and remove such substance (if any).	√	x	x	x	x	x	x
3.10	The operation and movements (such as lifting) of side plough devices and back plough plate shall be flexible and reliable without making any abnormal sound.	√	x	x	x	x	x	x
3.11	Check whether the safety chain, lock pin, locking seat, lock catch, etc. are in good condition of side plough.	√	x	x	x	x	x	x
3.12	Check whether any scraper is disengaged and adjust the space based on the degree of its cleanliness.	x	√	x	x	x	x	x
3.13	Inspect wear plates on both side and change, badly worn-out plates.	x	√	x	x	x	x	x
3.14	Check whether the rollers and carrier rollers of all the conveyor belts are in good condition and note their wears.	x	√	x	x	x	x	x
3.15	Check whether any scraper is disengaged and adjust the space based on the degree of its cleanliness.	x	√	x	x	x	x	x

S. N.	ITEM	SCH.I Daily	SCH.II 50HRS.	SCH.III 100HRS.	SCH.IV 200 HRS.	SCH.V 1000HRS.	SCH.VI 2000HRS.	SCH.VII 8000/6000 HRS.
3.16	Check whether any thread rod is deformed or has damaged or disengaged split pin.	x	√	x	x	x	x	x
3.17	Clean the leveling wear-resisting plate of vibration unit and replace such plate if it is over worn.	x	√	x	x	x	x	x
3.18	Check leveling device of the vibrating screen, and check whether there is any trace of interference on the leveling device	x	x	√	x	x	x	x
3.19	Check whether the oil discharge outlet and oil tube connections of the drive gear of the vibrating screen are loose or leaking.	x	x	√	x	x	x	x
3.20	Check the lubrication (Oil 1.5 L) of the drive gear of the vibrating screen.	x	x	√	x	x	x	x
3.21	Visual check the screen units for any broken wire and whether the fastening elements are reliably connected.	x	x	√	x	x	x	x
3.22	Check whether any connecting bolt of the lateral layering and the wall is loose or missing in vibration unit.	x	x	√	x	x	x	x
3.23	Check Ballast loading bucket whether any bolt is loose or missing, cracks at welded joints, components.	x	x	√	x	x	x	x
3.24	The arc-shaped wear plate shall be replaced if it is over worn to avoid damaging the frame of the ballast loading bucket	x	x	√	x	x	x	x
3.25	Check whether the rollers and carrier rollers of all the conveyor belts are in good condition and note their abrasion	x	x	√	x	x	x	x
3.26	Check whether any scraper is disengaged and adjust the space based on the degree of its cleanliness.	x	x	√	x	x	x	x
3.27	Check spoil/waste conveyor belt frame whether any bolt is loose or missing	x	x	√	x	x	x	x
3.28	Check whether there is no crack at weld joints s between the structural components or components of each part, and there is no obvious sag, deformation and other flaws.	x	x	√	x	x	x	x
3.29	Check rotary ballast throwing/waste belt frame whether any bolt is loose or missing	x	x	√	x	x	x	x
3.30	Check whether there is no crack at weld joints.	x	x	√	x	x	x	x
3.31	Check slide plough for any pin roll, washer or bolt is loose or missing	x	x	√	x	x	x	x
3.32	Check whether the wing plough plate, retracting cylinder and the plough plate have obvious deformation	x	x	√	x	x	x	x
3.33	Check whether any bolt is loose or missing of sleeper end plough.	x	x	√	x	x	x	x
3.34	Observe whether the horizontal movement of the scale plate will interfere with the tube of sleeper end plough.	x	x	√	x	x	x	x

S. N.	ITEM	SCH.I Daily	SCH.II 50HRS.	SCH.III 100HRS.	SCH.IV 200 HRS.	SCH.V 1000HRS.	SCH.VI 2000HRS.	SCH.VII 8000/6000 HRS.
3.35	Check the function and condition of conveyor belt, tension, safety Switch/ sensors.	x	x	√	x	x	x	x
3.36	Check whether any split pin, washer or bolt is loose or missing of compacting device.	x	x	√	x	x	x	x
3.37	Check whether there is no crack at weld joints between the structural components or components of each part of compacting device.	x	x	√	x	x	x	x
3.38	Check whether the oil cylinder and the surface of connections are leaking of compacting devices.	x	x	√	x	x	x	x
3.39	Check the condition of vibration motor of compacting device.	x	x	√	x	x	x	x
3.40	Check the locking system of compacting device.	x	x	√	x	x	x	x
3.41	Check whether any bolt is loose or missing of sweeper unit.	x	x	√	x	x	x	x
3.42	Check whether there is no crack at weld joints between the structural components or components of each part of sweeper unit.	x	x	√	x	x	x	x
3.43	Check whether any ballast blocks in brushes (middle/side), rubber rods and wear plates, and clean any ballast found in middle/side brushes.	x	x	√	x	x	x	x
3.44	Check the abrasion of the hoister brush (middle/side), rubber and rotary brush, and replace them in case of serious abrasion.	x	x	√	x	x	x	x
3.45	Check operation of safety device.	x	x	√	x	x	x	x
3.46	Check anti-collision devise of waste conveyors.	x	x	√	x	x	x	x
3.47	Check all axle gear boxes oil level & top up if required..	x	x	√	x	x	x	x
3.48	Check all axle gear boxes Filters chocking indication, replace if required.	x	x	√	x	x	x	x
3.49	Greasing of all gear boxes cover plates.	x	x	√	x	x	x	x

S.N.	ITEM	SCH.I Daily	SCH.II 50HRS.	SCH.III 100HRS.	SCH.IV 200 HRS.	SCH.V 1000HRS.	SCH.VI 2000HRS.	SCH.VII 8000/6000 HRS.
3.50	Check main gear boxes oil level & top up if req	X	X	√	X	X	X	X
3.51	Check conveyor belts GB oil levels	X	X	√	X	X	X	X
3.52	Check Rotating track GB oil level.	X	X	√	X	X	X	X
3.53	Check & Lubricate rotating track by grease.	X	X	√	X	X	X	X
3.54	Check brake shoe clearance and adjust if required.	X	X	√	X	X	X	X
3.55	Lubricate all pivoting bearing and bolt.	X	X	√	X	X	X	X
3.56	Visual check and lubricate the tension bearing of the deflection Pulley of all conveyor belts.	X	X	√	X	X	X	X
3.57	Check sleeper scraper for wear & lubricate suspension.	X	X	√	X	X	X	X
3.58	Check compacting unit & lubricate link rod, pivot pins.	X	X	√	X	X	X	X
3.59	Check vibration gear box oil level & top up if necessary	X	X	√	X	X	X	X
3.60	Check all brake block lining & Brake block play & brake linkages.	X	X	X	√	X	X	X
3.61	Check guide rollers and bushes of both side excavation devices.	X	X	X	√	X	X	X
3.62	Check foundation bolts of all brake cylinders.	X	X	X	√	X	X	X
3.63	Check the excavation chain sprocket and change if required.	X	X	X	√	X	X	X
3.64	Replace excavating fingers if required.	X	X	X	√	X	X	X
3.65	Repair ballast screens.	X	X	X	√	X	X	X
3.66	Check/repair brake lever bearing & brake rods.	X	X	X	√	X	X	X
3.67	Clean and grease the axle bearings of the bogies.	X	X	X	X	√	X	X
3.68	Check, clean & lubricate draw and buffing gear.	X	X	X	X	√	X	X
3.69	Check, clean & lubricate all coupling bolts.	X	X	X	X	√	X	X
3.70	Check & grease parking brake.	X	X	X	X	√	X	X
3.71	Clean and lubricate sliding surfaces and bolts of torque supports.	X	X	X	X	√	X	X
3.72	Change worn out screen meshes and plates, if required.	X	X	X	X	√	X	X
3.73	Check shock absorber for proper functioning and do needful.	X	X	X	X	√	X	X
3.74	Overhaul the side plough & sleeper end plough.	X	X	X	X	√	X	X
3.75	Change the worn out rubber plate & wear plates.	X	X	X	X	√	X	X
3.76	Repair the ballast loading bucket.	X	X	X	X	√	X	X

S. N.	ITEM	SCH.I Daily	SCH.II 50HRS.	SCH.III 100HRS.	SCH.IV 200 HRS.	SCH.V 1000HRS.	SCH.VI 2000HRS.	SCH.VII 8000/6000 HRS.
3.77	Replace distributing/backfill conveyors and waste/spoil conveyor belts.	x	x	x	x	√	x	x
3.78	Replace all conveyor belts.(ballasted, rotatory, spoil & backfill belts)	x	x	x	x	√	x	x
3.79	Checkup rubber element of all torque plate suspension and do needful.	x	x	x	x	√	x	x
3.80	Check grease filling of parking brake and do as Required.	x	x	x	x	√	x	x
3.81	Overhauling of screen vibration unit on need basis.	x	x	x	x	x	√	x
3.82	Overhauling/replacement all conveyer belt & excavation device guide.	x	x	x	x	x	√	x
3.83	Change all the brake shoes.	x	x	x	x	x	√	x
3.84	Check the wheels for tyre defects re profile or replace, if required.	x	x	x	x	x	x	√
3.85	Check the all bogie pivot for wear and attend as necessary.	x	x	x	x	x	x	√
3.86	Change the scraper pads and scraper rubbers of all conveyors.	x	x	x	x	x	x	√
3.87	Check the all axle bearing and grease them. Change if required.	x	x	x	x	x	x	√
3.88	Overhaul the compacting units.	x	x	x	x	x	x	√
3.89	Strengthen the machine frame where cracks have developed.	x	x	x	x	x	x	√
3.90	Repair/replace vibration screen unit.	x	x	x	x	x	x	√
3.91	Overhaul screen vibration drum and replace bearings.	x	x	x	x	x	x	√
3.92	Replace bearing of excavating unit.	x	x	x	x	x	x	√

S. N.	ITEM	SCH.I Daily	SCH.II 50HRS.	SCH.III 100HRS.	SCH.IV 200 HRS.	SCH.V 1000HRS.	SCH.VI 2000HRS.	SCH.VII 6000HRS.
4.0 POWER TRANSMISSION AND GEAR BOXES								
4.1	Check all drive, & guide/carrier rollers having no abnormal sound.	√	x	x	x	x	x	x
4.2	Check all driver& guide/carrier rollers whether the thread and moving parts have sufficient grease.	√	x	x	x	x	x	x
4.3	Check all driver roller & guide whether any lock washer is missing or damaged.	√	x	x	x	x	x	x
4.4	Check all conveyor belts damaged or disengaged & tightness.	√	x	x	x	x	x	x
4.5	Check the oil leakage from gear boxes from drive axles.	√	x	x	x	x	x	x
4.6	Check whether the rubber plate has obvious deep abrasion, and replace any plate with cracking in time.	√	x	x	x			
4.7	Visually inspect brake shoe, brake hangers, brake gear pins and cotters/split pins, brake beams, brake pipe, safety wire rope replace if necessary	√	x	x	x	x	x	x
4.8	Examine under frame members,cabin and axle support cylinders for leakages/damages.	√	x	x	x	x	x	x
4.9	Check for proper axle driving pressure.	√	x	x	x	x	x	x
4.10	Visual check the oil level & filters of all drive axle gear boxes.	√	x	x	x	x	x	x
4.11	Check main gear box oil levels	√	x	x	x	x	x	x
4.12	Check the oil level of conveyor belts gear box.	x	√	x	x	x	x	x
4.13	Check and top up the lubrication of all conveyor belt system.	x	√	x	x	x	x	x
4.14	Visual check the oil level of all gear boxes.	x	√	x	x	x	x	x
4.15	Check/adjust all conveyor belts sweeper springs, pressure & angle.	x	√	x	x	x	x	x
4.16	Check and Lubricate the all track rollers bearing of the driving station of all conveyor belts and its paths.	x	√	x	x	x	x	x
4.17	Check clean and lubricate swivel/rotating supporter bearings.	x	√	x	x	x	x	x
4.18	Check and lubricate locking devices of all conveyor belts.	x	√	x	x	x	x	x
4.19	Change Gear Boxes oil of vibration screen	x	x	x	√	x	x	x
4.20	Change axle Gear Boxes oil (Hyd. oilT 68). (Forward & middle bogie).	x	x	√**	√**	x	x	x
4.21	Change oil of conveyor belt.	x	x	√**	√**	x	x	x
4.22	Change oil of Rotatory track.	x	x	√**	√**	x	x	x
4.23	Change oil of all conveyor gear box.	x	x	√**	√**	x	x	x
** To be done after every 500 hrs.								

S. N.	ITEM	SCH.I Daily	SCH.II 50HRS.	SCH.III 100HRS.	SCH.IV 200 HRS.	SCH.V 1000HRS.	SCH.VI 2000HRS.	SCH.VII 8000/6000 HRS.
4.24	Change breatherfilters of main.	x	x	x	x	√	√	√
4.25	Inspect wheel tread for shattered rim, spread rim, shelled tread, thermal cracks, heat checks.	x	x	x	x	√	x	x
4.26	Remove bushes bearings of axle gear box and check the condition of every parts and repair /replace	x	x	x	x	√	x	x
4.27	Check the lubricating pump of axles gear boxes if temp. more than 105*c					√		
4.28	Visual and physical inspection of wheels shall be done once in a year or once after every 1000 engine running hours whichever is earlier.	x	x	x	x	√	x	x
4.29	Use dye-penetrant test for checking surface cracks in case of doubts.	x	x	x	x	√	x	x
4.30	Check/Replace all types Torque arm plates, pins & bushes all maggie flex washer, maggie springs damper rubber all brake reversal springs.	x	x	x	x	√	x	x
4.31	Replace all conveyor belts and overhaul the driving stations.	x	x	x	x	x	√	x
4.32	Ultrasonic examination of axle shall be between 40,000 to 45,000 kms of running or three years, whichever is earlier.	x	x	x	x	x	√	x
4.33	Repair/replace all wheels, axles bearing housings and bearings	x	x	x	x	x	x	√
4.34	Replace the shaft of gear boxes for which splines have twisted or worn out.	x	x	x	x	x	x	√
4.35	Change mounting pad of all gear boxes.	x	x	x	x	x	x	√
4.36	Check with wheel distance gauge for loose or tight wheels	x	x	x	x	x	x	√
4.37	Repair/replace all gear boxes, seals & driving shaft assemblies	x	x	x	x	x	x	√
4.38	Replace bearing of cutting chain drive gearbox if required.	x	x	x	x	x	x	√

S. N.	ITEM	SCH.I Daily	SCH.II 50HRS.	SCH.III 100HRS.	SCH.IV 200 HRS.	SCH.V 1000HRS.	SCH.VI 2000HRS.	SCH.VII 8000/6000 HRS.
5.0 UNDER FRAME MAINTENANCE								
5.1 Under frame								
5.1.1	Visually examine center pivot mounting bolts and attend if needed.	√	√	√	√	x	x	x
5.1.2	Check condition of head stock/sole bar.	√	√	√	√	√	√	√
5.1.3	Examine trough floor, turn under and other frame members from underneath for corrosion.	x	√*	x	x	√	√	√
5.1.4	Visually inspect center pivot cover	√	√	√	√	√	√	√
5.1.5	Visually examine and attend safety loops of bolster.	√	√	√	√	√	√	√
5.1.6	Thoroughly examine the center pivot mounting bolts and replace, if needed.	x	x	x	x	√	√	√
5.2 Brake rigging & Brake System								
5.2.1	Check and attend brake shoe head and key & replace if necessary.	√	√	√	√	√	√	√
5.2.2	Visually inspect brake hangers, brake gear pins and cotters/split pins and replace if necessary.	√	√	√	√	√	√	√
5.2.3	Visually examine brake beams breakages/damages.	x	√	√	√	√	√	√
5.2.4	Check brake gear and adjust so that the piston stroke is within the limit.	x	√	√	√	√	√	√
5.2.5	Visually inspect damaged/missing brake gear bushes, lever hanger pins replace if necessary.	x	x	x	x	√	√	√
5.2.6	Examine and attend brake levers.	x	√	√	√	√	√	√
5.2.7	Visually inspect for damage on brake pipe, replace if required	x	√	√	√	√	√	√
5.2.8	Check and attend brake beam safety wire rope / safe- ty straps.	x	√	√	√	√	√	√
5.2.9	Visually check for hand brake chain rope, sprocket & floating lever and attend if needed.	x	√	√	√	√	√	√
5.2.10	Check of MU washer and attend if needed.	x	√	√	√	√	√	√
5.2.11	Check for cutoff angle cock and leakage, attend if needed.	x	√	√	√	√	√	√
5.2.12	Check and attend brake block adjuster.	x	√*	x	x	√	√	√
5.2.13	Check/Replace all types Torque arm plates, pins & bushes.	x	x	x	x	x	√	√
5.2.14	Check/Replace all Maggie flex washer, Maggie/Rubber springs/ Damper rubber.	x	x	x	x	x	√	√
* To be done after every 250 hrs. ** To be done after every 500 hrs.								

S. N.	ITEM	SCH.I Daily	SCH.II 50HRS.	SCH.III 100HRS.	SCH.IV 200 HRS.	SCH.V 1000HRS.	SCH.VI 2000HRS.	SCH.VII 8000/6000 HRS.
5.2.15	Replace all brake reversal springs.	x	x	x	x	x	√	√
5.2.16	Repair/Replace all brake drum seals, cylinders & brake linkage rods.	x	x	x	x	x	√	√
5.3 Bogie Frame & Suspension								
5.3.1	Visually examine the condition of bogie frame and welded locations.	x	√	√	√	√	√	√
5.3.2	Examine bolster safety straps/loops for damage / broken suspension system /missing	x	√	√	√	√	√	√
5.3.3	Visually examine the condition of suspension system (Coil spring) for any damage/loose/breakage.	x	√*	x	x	√	√	√
5.3.4	Examine condition of the wearing plates.	x	x	√**	x	√	√	√
5.3.5	Examine corrosion of sole bar and other under frame members with torchlight or inspection lamp.	x	x	√**	x	√	√	√
5.3.6	Visually examine the cabin and axle support cylinders for leakages/damages.	x	x	√**	x	√	√	√
5.4 Draw Gear								
5.4.1	Examine draw hook, draw bars, rubber pads for damages.	x	√	√	√	√	√	√
5.4.2	Examine visually draft key locking pins.	x	√	√	√	√	√	√
5.4.3	Check and replace damage/missing split pins.	x	√	√	√	√	√	√
5.4.4	Check condition of the CBC coupling and its components and replace as required	x	√	√	√	√	√	√
5.4.5	Check condition of draw beam and locating pins on it.	x	x	√	√	√	√	√
5.4.6	Ensure that wear on screw coupling shackle pins, trunion pins, shackle/link holes and draw hook holes should not exceed 3mm.	x	x	√**	x	√	√	√
5.4.7	Remove the scale, rust, work hardened layers and surface cracks if any, by light grinding/filing	x	x	x	x	x	√	√
5.4.8	Use dye-penetrant test for checking surface cracks in case of doubts	x	x	x	x	x	√	√
5.4.9	Inspect the draw hook for deformations & cracks. The neck, its pin hole, and the slot are vulnerable locations	x	x	x	x	x	√	√
* To be done after every 250 hrs. ** To be done after every 500 hrs.								

S. N.	ITEM	SCH.I Daily	SCH.II 50HRS.	SCH.III 100HRS.	SCH.IV 200 HRS.	SCH.V 1000HRS.	SCH.VI 2000HRS.	SCH.VII 8000/6000 HRS.
5.5	Buffing Gear							
5.5.1	Visually examine buffer plungers for damages/ drooping /stroke length.	√	√	√	√	√	√	√
5.5.2	Examine buffer mounting bolts and attend if necessary.	√	√	√	√	√	√	√
5.5.3	Ensure the length is within 584-635 mm	x	x	√**	x	√	√	√
5.5.4	Inspect buffer plunger false plate for wear and profile.	x	x	√**	x	√	√	√
5.5.5	Check the draw bar for dimensional distortions and damaged threads.	x	x	x	x	x	√	√
5.5.6	Check the castle nuts for damaged threads, worn nut faces visually. Replace castle nuts if needed.	x	x	x	x	x	√	√
5.5.7	Test all draw bars by magna-glow equipment for surface cracks.	x	x	x	x	x	√	√
5.5.8	Load test draw bar (Stc. 60.61) at 39.5 t and those of (IS5517 Gr. 35Mn6Mo3) at 60t. There should not be any permanent deformations.	x	x	x	x	x	√	√
5.5.9	Examine visually buffer casing for cracks/damages & height.	√	√	√	√	√	√	√
5.6	Running Gear and Wheels							
5.6.1	Examine visually axle box for grease oozing out, warm box if any.	√	√	√	√	√	√	√
5.6.2	Visually inspect axle box covers.	√	√	√	√	√	√	√
5.6.3	Inspect wheel tread for shattered rim, spread rim,shelled tread, thermal cracks, heat checks	x	√	√	√	√	√	√
5.6.4	Visually examine wheel tyre profile and thickness of tyre and check with tyre profile gauge if they appear to be near condemning limit	x	x	√	√	√	√	√
5.6.5	Check with wheel distance gauge for loose or tightwheels.	x	x	√**	x	√	√	√
5.6.6	Repair/replace all wheels, axles bearing housings and bearings.	x	x	x	x	x	√	√
5.6.7	Fill all axle bearing housing with grease.	x	x	x	x	√	√	√
5.6.8	Repair/replace all gear boxes, seals & driving shaft assemblies.	x	x	x	x	x	√	√
** to be done at 500 hrs								

S. N.	ITEM	SCH.I Daily	SCH.II 50HRS.	SCH.III 100HRS.	SCH.IV 200 HRS.	SCH.V 1000HRS.	SCH.VI 2000HRS.	SCH.VII 8000/6000 HRS.
6.0 ELECTRICAL								
6.1	Check battery voltage	√	x	x	x	x	x	x
6.2	Check charging current	√	x	x	x	x	x	x
6.3	No alarm on the display panel. If there is an alarm, check the corresponding element for the reason.	√	x	x	x	x	x	x
6.4	The instrument illuminating lamp is sound	√	x	x	x	x	x	x
6.5	Check all meters showing correct value, Shifting of gear liver is normal.	√	x	x	x	x	x	x
6.6	The indicator lights, limit switches of all system for working properly.	√	x	x	x	x	x	x
6.7	Check all electrical control system for proper working.	√	x	x	x	x	x	x
6.8	Clean the dust on the cover of the camera, make sure the camera is firmly fixed without any missing part. The displayed image is clear; the switching of displays is smooth; and data storage working properly.	√	x	x	x	x	x	x
6.9	Check all lights and do needful.	x	√	x	x	x	x	x
6.10	Check fire alarm.	x	x	√	√	x	x	x
6.11	Clean the A.C. units.	x	x	x	√	x	x	x
6.12	Check function of all limits switches/Proximity switch and doneedful.	x	x	x	√	x	x	x
6.13	Clean alternator & Generators.	x	x	x	√	x	x	x
6.14	Check the main supply cable.	x	x	x	√	x	x	x
6.15	Check condition of the battery electrolyte level and cable connections.	x	x	x	√	x	x	x
6.16	Check and replace defective switches.	x	x	x	x	√	x	x
6.17	Check temperature switches and sensors.	x	x	x	x	√	x	x
6.18	Check battery and replace if required.	x	x	x	x	√	x	x
6.19	Check the LED of all solenoids & replace if required.	x	x	x	x	x	x	√
6.20	Overhaul all the panel boxes.	x	x	x	x	x	x	√
6.21	Replace the defective PCBs.	x	x	x	x	x	x	√
6.22	Change/replace defective cable/wiring.	x	x	x	x	x	x	√
6.23	Replace defective switches and potentiometers.	x	x	x	x	x	x	√

S. N.	ITEM	SCH.I Daily	SCH.II 50HRS.	SCH.III 100HRS.	SCH.IV 200 HRS.	SCH.V 1000HRS.	SCH.VI 2000HRS.	SCH.VII 8000/6000 HRS.
7.0 PNEUMATIC								
7.1	Clean the dust and oil stains on the embedded air compressor of the engine and the hydraulically driven air compressor, check hyd. drive air compressor oil (Engin oil R6 LM 10W-40).	√	x	x	x	x	x	x
7.2	inspect whether the set bolt and other fixation parts of the air compressor are loose, whether the connection of the air duct is loose or leaking air, and whether the oil level of the hydraulically driven air compressor	√	x	x	x	x	x	x
7.3	Inspect that the appearance of the distributing valve, direct braking module, traveling safety valve, angle cock, pressure regulating valve, shuttle valve, etc.	√	x	x	x	x	x	x
7.4	Check whether the braking action and release action of the unit brake are normal before the working.	√	x	x	x	x	x	x
7.5	Check air brake system pressure.	√	x	x	x	x	x	x
7.6	Check by pass braking.	√	x	x	x	x	x	x
7.7	Check for any air leakage.	√	x	x	x	x	x	x
7.8	Drain air reservoirs/Drip cups after the day's work.	√	x	x	x	x	x	x
7.9	Check the contamination indicators (pilot lamps) for dry type airfilter.	√	x	x	x	x	x	x
7.10	Check brake parts of idling bogie and powered bogie.	√	x	x	x	x	x	x
7.11	Check emergency brake operation.	√	x	x	x	x	x	x
7.12	Check function of horns.	√	x	x	x	x	x	x
7.13	Check/top up oil level of pneumatic lubricator (air oiler).	√	x	x	x	x	x	x
7.14	Clean water separator.	x	√	x	x	x	x	x
7.15	Check the pressure setting of relief valve.	x	x	√	x	x	x	x
7.16	Clean filter element of pneumatic system as per required.	x	x	x	√	x	x	x
7.17	Check tightness of foundation bolts of brake cylinders.	x	x	x	√	x	x	x
7.18	Check the mounting bolts of all pneumatic valves.	x	x	x	√	x	x	x
7.19	Check the functioning of auto drain valve.	x	x	x	√	x	x	x
7.20	Clean cooling coil.	x	x	x	√	x	x	x

S. N.	ITEM	SCH.I Daily	SCH.II 50HRS.	SCH.III 100HRS.	SCH.IV 200 HRS.	SCH.V 1000HRS.	SCH.VI 2000HRS.	SCH.VII 8000/6000 HRS.
7.21	Check air unloader for proper functioning.	X	X	X	√	X	X	X
7.22	Check all Pn. cylinder of proper functions.	X	X	X	√	X	X	X
7.23	Check whether the lifting and lock functions of the control switch for the operating pneumatic cylinder can work normally	X	X	X	√	X	X	X
7.24	Check condition of pneumatic hoses and replace as required.	X	X	X	X	√	X	X
7.25	Overhaul the air unloader.	X	X	X	X	√	X	X
7.26	Overhaul the water separator and air oiler.	X	X	X	X	√	X	X
7.27	Replace the filter cartridge of air dryer.	X	X	X	X	√	X	X
7.28	Replace pneumatic cylinder seals or cylinders as required.	X	X	X	X	X	X	√
7.29	Clean air tank.	X	X	X	X	X	X	√
7.30	Check all pneumatic valves and change if necessary.	X	X	X	X	X	X	√
7.31	All pneumatic pipes to be replaced.	X	X	X	X	X	X	√
7.32	Change the water separator and air oiler.	X	X	X	X	X	X	√
7.33	Replace air unloader, need basis.	X	X	X	X	X	X	√
7.34	Change all the pressure control valves, need basis	X	X	X	X	X	X	√
7.35	Overhaul the brake cylinder and replace the seals if required.	X	X	X	X	X	X	√
7.36	Check the brake system.	X	X	X	X	X	X	√

S. N.	ITEM	SCH.I Daily	SCH.II 50HRS.	SCH.III 100HRS.	SCH.IV 200 HRS.	SCH.V 1000HRS.	SCH.VI 2000HRS.	SCH.VII 8000/6000 HRS.
8.0 GENERAL								
8.1	Check for any unusual sound from machine.	√	x	x	x	x	x	x
8.2	Check safety items, emergency tools & spares.	√	x	x	x	x	x	x
8.3	Check all the functions of machine before block working.	√	x	x	x	x	x	x
8.4	Check the early fire detection system	√	x	x	x	x	x	x
8.5	Check the expiry of first Aid box.	√	x	x	x	x	x	x
8.6	Check the expiry of fire extinguisher/ may be done on regular basis.	√	x	x	x	x	x	x
8.7	Clean complete machine.	x	√	x	x	√	x	x
8.8	Check emergency backup system.	x	√	x	x	√	x	x
8.9	Check the air conditioner.	x	√	x	x	√	x	x
8.10	Thoroughly clean all panel boxes with pressurized air.	x	x	x	x	x	√	x
8.11	Check the function of all assemblies after IOH.	x	x	x	x	x	√	x
8.12	Calibrate the machine on track for all functions	x	x	x	x	x	√	x
8.13	Replace the missing and defective hand tools.	x	x	x	x	x	√	x
8.14	Overhaul the bogies/recondition.	x	x	x	x	x	x	√
8.15	Check the calibration of all the indicative instruments and replace the defective ones.	x	x	x	x	x	x	√
8.16	Flush the complete system.	x	x	x	x	x	x	√
8.17	Check the function of all assemblies.	x	x	x	x	x	x	√
8.18	Test the machine for one week before it is put for actual working in section on regular basis.	x	x	x	x	x	x	√
8.19	Overhaul the A.C. unit.	x	x	x	x	x	x	√
8.20	Complete machine may be painted with approved paint.	x	x	x	x	x	x	√
Note:- During CPOH, Machine Supervisor and CPOH Inspecting Authority jointly inspect the Machine. Any part of Machine is to be repaired or replaced; this decision is taken by CPOH Inspecting authority.								

Annexure - I

List of Safety Equipment's

Sr. No.	Description	Quantity
1.	Red and hand signal flags	2 Nos.
2.	Green hand signal flags	1 No.
3.	Tri- color 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 50t 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 for all machine staff	For all staffs
22.	Protection clothing , safety shoes and safety gloves	For all staffs
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.

Annexure – II**GENERAL SAFETY NOTES**

1. The machine has to be operated according to existing Indian Railways rules and regulations.
2. The safety of all machine staffs is most important in the operation and maintenance of the machine.
3. Always alert the men working close to the machine.
4. Do not forget to look out for signals and obstructions on track.
5. Make sure that all protection equipment and safety devices are in place on the machine and in working order especially when it is being driven from site to site.
6. Always keep the machine clean. Excessive oil or grease on the machine can make surface slippery and is also potential fire hazard.
7. Always lock the machine before leaving. Make sure that the machine is protected in accordance with Railways regulations.
8. Wherever there is an opportunity while waiting to go out for a job, do some of the smaller maintenance job, such as tightening loose nut & bolts and cleaning the machine.
9. Do not permit unauthorized persons to operate the machine.
10. It is prohibited to use fire on or near the machine.
11. Whenever going to work near cutting chain, operate the emergency push button and ensure latching position.
12. Always wear proper dress, safety shoes and helmet while operation of the machine.

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RDSO

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|-----|-----------------------------|--------|
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