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अनुसंधान अभिकल्प और मानक संगठन  
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Government of India-Ministry of Railways  
Research Designs & Standards Organisation  
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TM/HM/SBCM/Pt.III

Date : 14-03-2019

I- मुख्य अभियन्ता (ट्रैक मशीन )

1. मध्य रेलवे, सीएसटी, मुम्बई-400 001
  2. फेयरली प्लेस, पूर्व रेलवे, कोलकाता-700 001
  3. बड़ौदा हाउस, उत्तर रेलवे, नयी दिल्ली-110 001
  4. उत्तरपूर्व रेलवे, गोरखपुर 273012
  5. मालीगांव, उत्तरपूर्व सीमान्त रेलवे, गुवाहाटी-781 011
  6. पार्क टाउन, दक्षिण रेलवे, चेन्नई-600 003
  7. रेल निलायम, दक्षिण मध्य रेलवे, सिकन्दराबाद-500 371
  8. गार्डन रीच, दक्षिणपूर्व रेलवे, कोलकाता-700 043
  9. चर्चगेट, पश्चिम रेलवे, मुम्बई-400 020
  10. उत्तर पश्चिम रेलवे, जयपुर-302 001
  11. पूर्व मध्य रेलवे, हाजीपुर-844 101
  12. दक्षिण पश्चिम रेलवे, हुवली-580 023
  13. उत्तर मध्य रेलवे, इलाहाबाद-211 012
  14. पूर्व तट रेलवे, भुवनेश्वर-751 001
  15. पश्चिम मध्य रेलवे, जबलपुर-482 001
  16. दक्षिण पूर्व मध्य रेलवे, बिलासपुर-495 004
- II- उप मुख्य अभियन्ता (ट्रैक मशीन )
1. सी.पी.ओ.एच. कार्यशाला पो 0 धूमनगंज इलाहाबाद-221012
  2. सी.पी.ओ.एच. कार्यशाला दक्षिण मध्य रेलवे, रायनापाडु, विजयवाडा, जिला कृष्णा, आन्ध्र प्रदेश. 521241

- III- प्रधानाचार्य भा.रे.रे.प.म.प्र.के. पीपल गांव इलाहाबाद-211012

Chief Engineer (Track Machines)

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E C R, Hazipur-844 101  
SWR, Hubli-580 023  
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Principal, IRTMTC, PipalGaon, Allahabad-211012

विषय : SBCM (FRM-85 F) मशीन की अनुरक्षण अनुसूची पुस्तिका (पुनरीक्षण-1) एवं निरीक्षण जांच सूची (पुनरीक्षण-1)।

Sub: Maintenance schedule manual (Rev-1) and Inspection check list (Rev-1) for SBCM (FRM-85 F).


SBCM (FRM-85 F) मशीन की अनुरक्षण अनुसूची पुस्तिका (पुनरीक्षण-1) एवं निरीक्षण जांच सूची (पुनरीक्षण-1) तैयार की गई है। जिसकी प्रति, आपके सूचनार्थ तथा मशीन के कर्मचारियों जो फील्ड में काम कर रहे हैं, के मार्गदर्शन हेतु संलग्न है। यद्यपि उपरोक्त पुनरीक्षण 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 अद्योहस्ताक्षरी को भेजे।

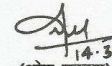
Maintenance schedule manual (Rev-1) and Inspection check list (Rev-1) for Shoulder Ballast Cleaning Machine (FRM-85 F) have been prepared. Copy of the same is enclosed herewith for your information and guidance of the machine staff working in the field. However every care has been taken during preparation of revisions of the above said list, the discrepancy noticed, if any, may be brought to the knowledge of the undersigned for further improvement by e-mail/fax/post.

DA: As above

Copy to:

1. Executive Director/Track(MC), Railway Board, New Delhi-110001
2. Director/IRICEN, Pune-411001

  
14-3-19  
(ओम प्रकाश)  
निदेशक रेलपथ मशीन-III

  
14-3-19  
(ओम प्रकाश)  
निदेशक रेलपथ मशीन-III  
O/C



भारत सरकार  
भारतीय रेलवे

GOVERNMENT OF INDIA  
INDIAN RAILWAYS

शोल्डर बैलास्ट क्लीनिंग मशीन (एफ. आर.एम-85 एफ)  
की निरीक्षण जांच सूची

**INSPECTION CHECK LIST FOR SHOULDER BALLAST  
CLEANING MACHINE (FRM-85 F)**

रिपोर्ट संख्या: टी.एम.-136 संशोधन-1  
**Report No.TM – 136 (Rev.-1)**

मार्च-2019  
March-2019

अनुसंधान अभिकल्प और मानक संगठन  
लखनऊ-226011

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

## INSPECTION CHECK LIST FOR SHOULDER BALLAST CLEANING MACHINE (FRM-85F)

**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** : \_\_\_\_\_

S. No	Items	Remarks given by inspecting officer
<b>1.General :</b>		
1.1	Name of supervisor	
1.2	Machine make	
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 book filled properly	
1.12	Pending Maintenance Schedule and its reasons 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.	I t e m s	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 ballast cleaning operation being done	Yes <input type="checkbox"/>	No <input type="checkbox"/>
1.22	Back-up system of machine	Satisfactory <input type="checkbox"/>	Need attention <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 SBCM (FRM-85 F) issued by RDSO/LKO}	Yes <input type="checkbox"/>	No <input type="checkbox"/>
1.25	Condition of Genset /Welding plant	Satisfactory <input type="checkbox"/>	Poor <input type="checkbox"/>

**History of Machine:**-----  
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Sr.no.	I t e m s	Prevailing Conditions	
<b>2. ENGINE: Cummins (VTA 1710L 737 BHP)</b>			
2.1	Engine hours on date	Dated _____	.....ERH
2.2	Last top overhauling of the Engine if done	Dated _____	.....ERH
2.3	Starting problem	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2.4	Condition of self starter	Ok <input type="checkbox"/>	need attention <input type="checkbox"/>
2.5	Condition of smoke	White <input type="checkbox"/> Normal <input type="checkbox"/>	Black <input type="checkbox"/>
2.6	Leakage in Head gasket	Yes <input type="checkbox"/> Head no .....	No <input type="checkbox"/>
2.7	Belts condition and tension	Ok <input type="checkbox"/>	To be tightened <input type="checkbox"/>
2.8	Calibration of fuel injection pump (to be done after every 2000 hrs)	done <input type="checkbox"/>	due <input type="checkbox"/>
2.9	RPM of the Engine (Rated 2200)	Actual-----	
2.10	Calibration of Fuel Injectors (to be done after every 2000 hrs)	done <input type="checkbox"/>	due <input type="checkbox"/>
2.11	Change of Air Cleaner filters (500 Hrs Duration)	Dated <input type="checkbox"/>	ERH <input type="checkbox"/>
2.12	Change of engine oil (300 Hrs duration)	done <input type="checkbox"/>	Not done <input type="checkbox"/>
2.13	Change of lub oil filter (300 Hrs duration)	done <input type="checkbox"/>	Not done <input type="checkbox"/>
2.14	Engine oil pressure a) 1.5 Kg/cm <sup>2</sup> at idle speed 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"/>
2.15	Engine temperature after two hours working (Optimum range 75 <sup>0</sup> c to 85 <sup>0</sup> c)	.....°C	
2.16	Any abnormal sound	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2.17	Overall condition of engine	Ok <input type="checkbox"/>	Not satisfactory <input type="checkbox"/>

Sr.no.	I t e m s	Prevailing Conditions Cummins VTA 1710L 737 BHP	
2.18	Whether working gauges/display are in order or not		
	a) R.P.M i) In working cabin	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	ii) In rear cabin	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	b) Oil Pressure (In working cabin)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	c) Temperature (In working cabin)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	d) Speedometer/ Tachometer i) in rear cabin	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	ii) Working cabin	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2.19	Function of Engine safety devices		
	a) High temp. Safety device.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
b) Low lub. Oil Pressure safety device.	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
2.20	Change of diesel filters (300 Hrs)	Done <input type="checkbox"/>	Not done <input type="checkbox"/>
2.21	Condition of battery terminals	Ok <input type="checkbox"/>	To be tightened <input type="checkbox"/>
2.22	Battery charging system	Ok <input type="checkbox"/>	Not satisfactory <input type="checkbox"/>
2.23	Condition of batteries	Ok <input type="checkbox"/>	Not satisfactory <input type="checkbox"/>
2.24	Electrolyte level in batteries (Plates should be embedded in electrolyte)	Ok <input type="checkbox"/>	Need Top up <input type="checkbox"/>
2.25	Specific gravity of electrolyte (min 1.24)	Ok <input type="checkbox"/>	Less <input type="checkbox"/>
2.26	Condition of silencer asbestos rope	Ok <input type="checkbox"/>	Not satisfactory <input type="checkbox"/>
2.27	Air cleaner chocking indication	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2.28	Condition of water radiator and its fins	Ok <input type="checkbox"/>	Not satisfactory <input type="checkbox"/>

Remark :- -----  
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S. No.	Items	Agent / Description	Prevailing Condition	
<b>3. OIL LEVELS</b>				
3.1	Hydraulic oil	HLP - 68/equivalent	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	HLP – 68/equivalent	OK <input type="checkbox"/>	Need top up <input type="checkbox"/>
3.4	Main gear box	HLP – 68/equivalent	OK <input type="checkbox"/>	Need top up <input type="checkbox"/>
3.5	Engine lube oil	15W40CF4/equivalent	OK <input type="checkbox"/>	Need top up <input type="checkbox"/>
3.6	Conveyor gear box	HLP – 68/equivalent	OK <input type="checkbox"/>	Need top up <input type="checkbox"/>
3.7	Turn table container	HLP – 68/equivalent	OK <input type="checkbox"/>	Need top up <input type="checkbox"/>
3.8	Turret drum container	HLP - 68 /equivalent	OK <input type="checkbox"/>	Need top up <input type="checkbox"/>
3.9	Vibration drum	HLP – 68/equivalent	OK <input type="checkbox"/>	Need top up <input type="checkbox"/>
<b>4. 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 Cardon shaft	done <input type="checkbox"/>	Not done	<input type="checkbox"/>
4.5	Condition of master cylinder of clutch	Ok <input type="checkbox"/>	Not satisfactory	<input type="checkbox"/>
<b>5. EXCAVATION UNIT</b>				
5.1	Oiling of excavating chain	Ok <input type="checkbox"/>	To be done	<input type="checkbox"/>
5.2	Condition of Wear plates	Satisfactory <input type="checkbox"/>	To be attended No. ....	<input type="checkbox"/>
5.3	Condition of excavating chain & Finger	Ok <input type="checkbox"/>	To be attended	<input type="checkbox"/>
5.4	Central lubrication system	Working <input type="checkbox"/>	Not working	<input type="checkbox"/>
5.5	Condition of excavating chains tensioning cylinder	Ok <input type="checkbox"/>	To be attended	<input type="checkbox"/>

Remark :-----  
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S. No.	Items	Prevailing Condition	
<b>6. SCREENING UNIT &amp; DISTRIBUTOR</b>			
6.1	Working of ballast distribution chute	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 bearings	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 flapper cylinder	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
6.6	Condition of wing plate	Ok <input type="checkbox"/>	To be replaced <input type="checkbox"/>
6.7	Condition of rubber pads	Ok <input type="checkbox"/>	To be replaced <input type="checkbox"/>
6.8	Weather screen is clean or not	clean <input type="checkbox"/>	not clean <input type="checkbox"/>
6.9	Working condition of ballast regulating system	Ok <input type="checkbox"/>	To be attend <input type="checkbox"/>
<b>7. HYDRAULIC AND PNEUMATIC PRESSURE &amp; TEMPERATURE</b>			
7.1	Work drive pressure (Max. <sup>m</sup> 380 bar)	Ok <input type="checkbox"/>	To be adjusted <input type="checkbox"/>
7.2	Chain drive pressure (Max. <sup>m</sup> 340 bar)	Ok <input type="checkbox"/>	To be adjusted <input type="checkbox"/>
7.3	Vibration pressure (Max. <sup>m</sup> 340 bar)	Ok <input type="checkbox"/>	To be adjusted <input type="checkbox"/>
7.4	Conveyor belt pressure (Max. <sup>m</sup> 200 bar)	Ok <input type="checkbox"/>	To be adjusted <input type="checkbox"/>
7.5	Cooler pressure (Max. <sup>m</sup> 120 bar)	Ok <input type="checkbox"/>	To be adjusted <input type="checkbox"/>
7.6	Maximum Hydraulic oil temperature during work (below than 80 <sup>0</sup> c)	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
7.7	Pneumatic pressure (Max. <sup>m</sup> 7 bar)	Ok <input type="checkbox"/>	To be adjusted <input type="checkbox"/>
<b>8.0 CONVEYOR BELTS:</b>			
8.1	Condition of conveyor belts	Ok <input type="checkbox"/>	To be replaced <input type="checkbox"/>
8.2	Tension in the conveyor belts	Ok <input type="checkbox"/>	To be adjusted <input type="checkbox"/>
8.3	Hydraulic slew ability of waste conveyor belts (left & right)	Ok <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>
8.4	Hydraulic slew ability of conveyor belts for movement	Ok <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>

Remark :-----  
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S. No.	I t e m s	Prevailing Condition	
8.5	Proper positioning of waste conveyor belts (It should be at lower position)	Ok <input type="checkbox"/>	Unsatisfactory <input type="checkbox"/>
8.6	Locking /unlocking devices of conveyor belt	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
8.7	Greasing of main conveyor bearing (50 Hrs)	Ok <input type="checkbox"/>	To be done <input type="checkbox"/>
8.8	Condition of idle rollers	Ok <input type="checkbox"/>	To be replaced <input type="checkbox"/>
8.9	Condition of conveyor safety system	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
<b>9.0 ELECTRICAL AND ELECTRONICS</b>			
9.1	Working Head light, Tail light and other light	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
9.2	Flasher light	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
9.3	Hooter	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
9.4	Working of Electric Horn	Ok <input type="checkbox"/>	Need attention <input type="checkbox"/>
9.5	Condition of self starter	Ok <input type="checkbox"/>	Need attention <input type="checkbox"/>
9.6	Condition of alternator	Ok <input type="checkbox"/>	Need attention <input type="checkbox"/>
9.7	Defective /released PCB available with machine	Part no .....	
<b>10.0 PNEUMATICS</b>			
10.1	Condition and clearance of brake shoes	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
10.2	Condition of pneumatic cylinder of plough	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
10.3	Condition of KE valve (indirect brake)	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
10.4	Condition of air unloader	Working <input type="checkbox"/>	Not working <input type="checkbox"/>
10.5	Function of air compressor	Ok <input type="checkbox"/>	Need attention <input type="checkbox"/>
10.6	Condition of pneumatic horn	Ok <input type="checkbox"/>	Need attention <input type="checkbox"/>
<b>11.0 UNDER FRAME INSPECTION</b>			
11.1	<b>UNDER FRAME</b>		
11.1.1	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"/>
11.1.2	Examine the shock absorber for damages.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>

S. No.	Items	Prevailing Condition	
11.1.3	Visual Inspect centre pivot cover.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
11.1.4	Check condition of head stock/sole bar of centre buffer Coupler.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
<b>11.2.</b>	<b>BOGIE FRAME &amp; WHEELS</b>		
11.2.1	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"/>
11.2.2	Visual Inspection of wheels and under gear for any infringement.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
11.2.3	Visually inspect all the welding locations.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
11.2.4	Visually check the suspension brackets.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
<b>11.3</b>	<b>Brake Rigging</b>		
11.3.1	Visually check the rubbing plates.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
11.3.2	Examine brake beams breakages/damages.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
11.3.3	Inspection of Brake hanger bracket and torque support for damages.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
<b>11.4</b>	<b>Draw Gear</b>		
11.4.1	Check condition of the screw coupling and replace if required.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
11.4.2	Examine draw hook, draw bars, rubber pads for damages	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
11.4.3	Ensure that wear at any section on draw hook should not exceed 10 mm.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
11.4.4	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>11.5</b>	<b>Buffing Gear</b>		
11.5.1	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"/>

S. No.	I t e m s	Prevailing Condition	
11.5.2	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"/>
11.5.3	Visually examine the buffers casing for cracks/damages.	Ok <input type="checkbox"/>	To be attended <input type="checkbox"/>
<b>12.0 STAFF</b>			
12.1	Strength of staff as per IRTMM (second Edition)-2017	Full <input type="checkbox"/>	Deficient <input type="checkbox"/>
12.2	Safety awareness	Excellent <input type="checkbox"/> Good <input type="checkbox"/>	Very good <input type="checkbox"/> Average <input type="checkbox"/>
12.3	Staff due for Medical	.....	Overdue <input type="checkbox"/>
12.4	Staff due for training	.....	Overdue <input type="checkbox"/>
12.5	Staff availing rest on due date	Yes <input type="checkbox"/>	No <input type="checkbox"/>
12.6	Staff amenities as per up to date IRTMM (Second Edition) -2017.	Satisfactory <input type="checkbox"/>	Poor <input type="checkbox"/>
<b>13.0 SAFETY ITEMS:</b>			
13.1	Safety equipment as per Annexure-I	Available <input type="checkbox"/>	deficient <input type="checkbox"/>
13.2	Working of safety emergency braking system of the machine	Ok <input type="checkbox"/>	Defective <input type="checkbox"/>
13.3	Fire extinguisher	Current <input type="checkbox"/>	Expired (Date.....) <input type="checkbox"/>
13.4	Ultrasonic testing of axles of machine shall be done between 40,000 to 45,000 kms of running engine hours or three years, whichever is earlier.	Done <input type="checkbox"/>	Not done <input type="checkbox"/>

Remark :-----  
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Date.....

Signature of inspecting officer

**List of Safety Equipments**

Sr. No.	Description	Quantity	Available Yes (√)/No (x)
1.	Red hand signal flags	2 Nos.	
2.	Green hand signal flag	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 10 t	2 Nos.	
8.	Jack 50 t	1 No	
9.	Wooden Blocks	4 Nos.	
10.	Crow bars	4 Nos.	
11.	Hydraulic hand pump	1 No.	
12.	Emergency Pneumatic/Hydraulic hose off size suiting to different machines (complete with end fitting )	As per requirement	
13.	Wire rope with close loops at both ends 2 meters and 9 meters long one of each length	As per requirement	
14.	Machine Specific Equipment if any.	As per requirement	
15.	Fog signals ( detonators ) in a tin case	10 Nos.	
16.	A copy of working time table of this section where the machine is working	1 No.	
17.	G & SR book with up to date amendment slips	1 No.	
18.	4 cells flasher light LED lamp cum flasher light (rechargeable )	1 No.	
19.	Banner flags	2 Nos.	
20.	First aid Box	1 No.	
21.	Skids	2 Nos.	
22.	Safety helmet, protection clothing, safety shoes, safety gloves etc.	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**

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### **RAILWAYS:-**

- |    |                           |             |
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| 2. | Shri Manish Kumar Dwivedi | JE/TMC/NR   |
| 3. | Shri Rajakvarma           | SSE/TMC/SWR |

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- |    |                      |         |
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| 3. | Shri V.P. Srivastava | SSE/TM  |
| 2. | Shri Ravi Kumar      | SSRE/TM |