



# CHITTARANJAN LOCOMOTIVE WORKS

## Annual Narrative Report 2023-24



**2023-24**

**FOR OFFICE  
USE ONLY**

**Chittaranjan Locomotive Works  
General Manager's Office  
Chittaranjan**



**To  
Secretary,  
Railway Board,  
Ministry of Railways,  
Government of India,  
New Delhi –110001.**

I forward herewith the Annual Report on the working of the Chittaranjan Locomotive Works for the year 2023-24.




  
**(Hitendra Malhotra)  
General Manager**



**Hitendra Malhotra**  
**GENERAL MANAGER**

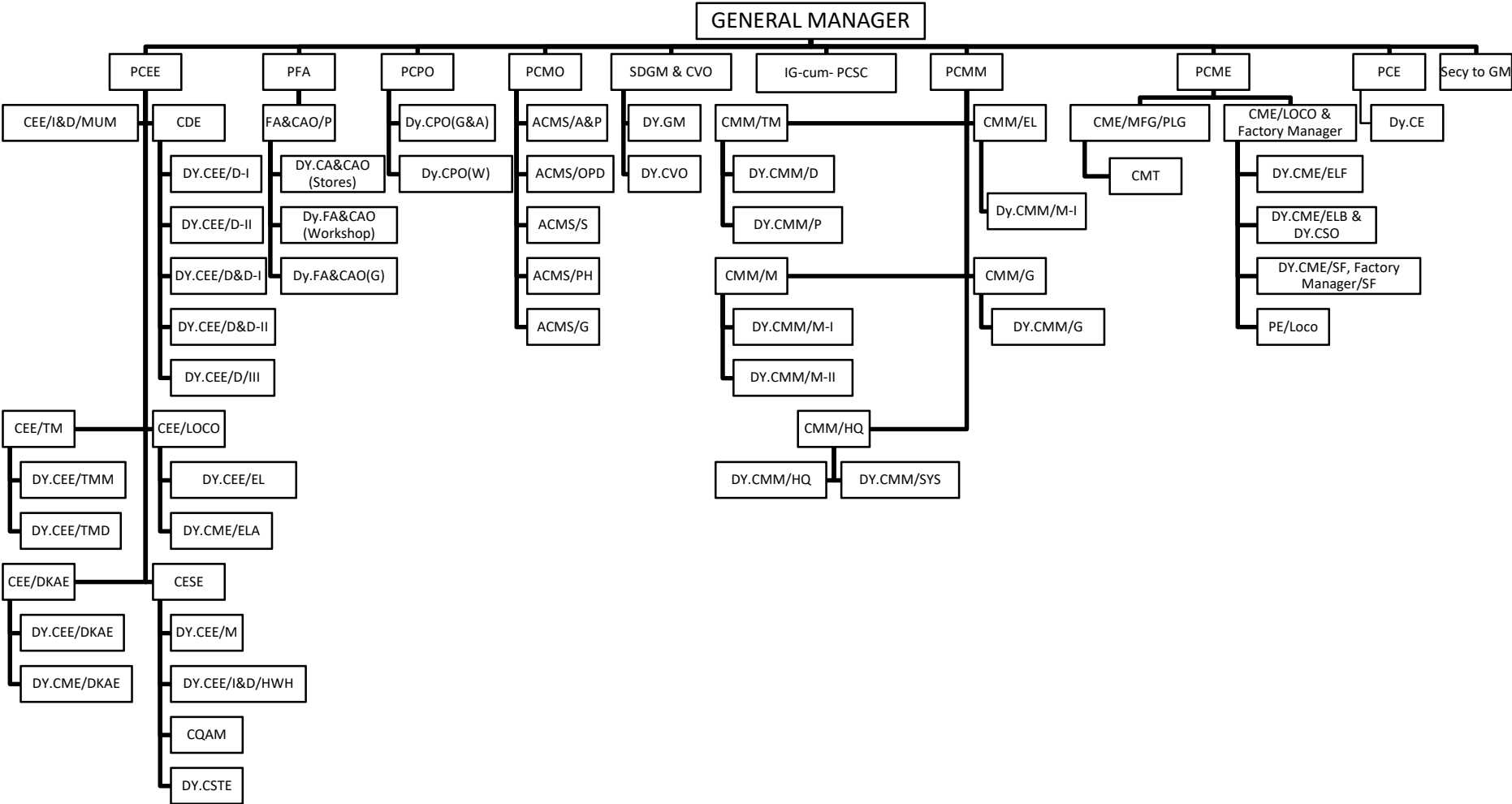
		
<b>S.K. Verma</b> <b>PCEE</b>	<b>H. Akhtar</b> <b>PCME</b>	<b>A.K. Meshram</b> <b>PCMM</b>

		
<b>A. Sarkar</b> <b>PFA</b>	<b>P.K. Khatri</b> <b>SDGM &amp; CVO</b>	<b>A. Choudhuri</b> <b>PCPO</b>

		
<b>R. Paasad</b> <b>PCE</b>	<b>Dr. R.K. Mukherjee</b> <b>PCMO</b>	<b>Satya Prakash</b> <b>IG-cum-PCSC</b>



# ORGANIZATIONAL CHART (UPTO JAG) AS ON 31.03.2024



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➤ **Medical facilities:**

In the realm of healthcare, KG Hospital, boasting 192 beds, has extended comprehensive medical services to nearly 58,872 Railway beneficiaries. This encompasses approximately 8,598 employees and their families, along with 12,240 retired employees and their dependents. Moreover, KG Hospital plays an active role in community health by overseeing public health and sanitation contracts. Noteworthy achievements include 993 surgeries this year, including 158 major procedures.

➤ **Achievements in Sports Arena:**

Our athletes have achieved remarkable success in various sports, earning medals at both national and international levels. Notable achievements are furnished below:-

Miss Pranati Nayak, Gymnast of CLW, represent India in the Artistic Gymnastic in the “19<sup>th</sup> Asian Games” held at Hangzhou/China from 23.09.2023 to 08.10.2023.

Miss Kiran Yadav represented Indian Railway in the “Sr. National Basketball Championship” held at Ludhiana (Punjab) from 03.12.2023 to 10.12.2023 and won Gold Medal in Team Event.

Shri Kapil, Miss Monika Soren and Shri Sagar Chopra represented CLW in the “13<sup>th</sup> All India Railway (Men & Women) Archery Championship” held at NFRSA/Guwahati from 08.10.2023 to 10.10.2023. Shri Kapil secured Gold Medal in Recurve (Mixed Event), Gold Medal in Recurve Men individual event and Silver Medal in Individual Elimination event. Miss Monika won Gold Medal in Recurve Women individual event, Gold Medal in Mixed Team Event, Bronze in Recurve Women individual Ranking Event. Sri Sagar Chopra won Silver Medal in Compound Men individual event.

Miss Monika represented CLW in the “All India Railway Boxing Championship” held at SECRSA /Bilaspur from 30.10.2023 to 02.11.2023 and won Silver Medal in 50 Kg Category (Women)

Looking ahead, we have full confidence in our athletes to continue their stellar performances on and off the field. We are dedicated to providing them with unwavering support, resources, and top-notch training, ensuring they reach their full potential and bring home more victories.

At CLW, we've always emphasized sports and fitness, and these achievements underscore our commitment to promoting a healthy lifestyle among our employees and the community.

➤ **CLW-Women’s Welfare Organization:**

The CLW Women’s Welfare Organization stands as a beacon of hope, extending a helping hand to the underprivileged and those in need. With an ever-expanding scope of charitable activities, the organization tirelessly provides social and humanitarian services to uplift communities. Through its "ShishuVihar" and "Asha Kiran" schools, it offers quality education to children and differently-abled individuals, empowering them to break free from the cycle of poverty and pursue fulfilling lives. It engages the needy persons in Masala Centre & File Centre and gives them employment opportunities.

Under the active support of CLWWO, health check-up camps are organized for children, special days and events are celebrated with the distribution of sweets and prizes, and competitions are held to unearth and promote hidden talents. The impact of CLW Women’s Welfare Organization's endeavors has been truly remarkable, transforming countless lives and underscoring the organization's unwavering dedication to societal betterment.



➤ **Certifications:**

The Chittaranjan Locomotive Works (CLW) has once again proven its commitment to excellence by receiving the esteemed "IRIS Certification" based on ISO/TS 22163:2017 from DNV Business Assurance Zertifizierung GmbH. This recognition is a testament to their exceptional design, development, and manufacturing of electric locomotives, among other accomplishments.

It is worth noting that CLW has also received numerous other prestigious certifications, including the ISO-14001 certificate for maintaining clean and environmental friendly works and townships. Additionally, CLW also acquired the ISO 9001:2008 certificate for their quality management system and the OHSAS 18001:2007 certificate for their exceptional occupational health and safety management system. Furthermore, the organization has also been awarded the 5S certification for its outstanding workplace management system, the ISO-3834-2:2005 certificate for its exceptional manufacturing of the shell body of electric locomotives. The renewal of the above certifications is under process.



The ISO-50001 certificate for its commitment to reducing operating costs and increasing energy conservation. It is no surprise that the ELAAU/Dankuni of CLW has also earned the IMS certificate and 5S Certification, further showcasing the company's dedication to excellence in every aspect of its operations.

➤ **Important Landmarks in CLW**

- **Ganapati Hut:** Ganapati Hut near DV Boys School has been given the status of a Heritage Site and every effort have been extended to preserve the site. Ganapati Hut was the place from where, the Chief Architect of CLW, Mr. M. Ganapati, the then Engineer in Chief orchestrated his engineering acumen in building this Production Unit with grit and perfection.



- **Strides of Growth:** The galloping Horse made from scrap materials in CLW workshop 'STRIDES OF GROWTH' dedicated on 18<sup>th</sup> August, 2022 to mark the highest ever 486 loco production in FY21-22. It symbolizes the steady progress chronicled over the years in loco production in CLW.

- The Heritage Museum, the heart of CLW's glorious heritage and history, is located in the administrative building. Here, visitors can explore the golden past of the Chittaranjan Locomotive Works. The museum features models of various classes of railway engines. With its attractive decorations, sophisticated lighting, and informative permanent exhibitions, the museum is a major draw for visitors. It is modern, technologically advanced, and serves as a mirror reflecting the technological progress and rich history of CLW.



- **“Deshbandhu Loco Park”:** As part of the mission, a heritage loco park had been exclusively developed as **“Deshbandhu Loco Park”** wherein, the first steam loco **“Deshbandhu”** named after the famous freedom fighter Deshbadhu Chittaranjan Das and the last loco named **“Antim Sitara”** marking the end of Steam production are proudly preserved. This loco park also proudly houses 1:4 scale steam loco in running condition and is regularly thrown open for joy ride for visiting dignitaries, general public and children. A steam loco of 1:8 scale has also been proudly placed in the loco park.



- **Globe in Azadi Ka Amrit Mahotsav:** Recently, a Globe icon was installed near the Ranjan crossing dedicating our spirit of think global along with Azadi Ka Amrit Mahotsav. The icon attracts many visitors and pays as a photo frame to the visitors.



### ➤ **The Chittaranjan Environment:**

Chittaranjan Locomotive Works (CLW) isn't just about manufacturing electric locomotives; it's a champion of sustainable living. With serene lakes, rolling hills, and lush forests, our township is a haven for biodiversity. We take environmental responsibility seriously, keeping our surroundings clean and green. CLW is engaging all stake holders & educating them for proper waste disposal. CLW uses recycled water from water treatment plant to the extent of 3535 Kiloliters daily. Electrical energy used per loco produced has come down by 25%.

CLW's dedication and concern towards Mother Nature have yielded remarkable results, especially during the winter months when Chittaranjan Township gets transformed into a sanctuary for a diverse array of migratory birds from across the globe. The township's picturesque water bodies serve as a heaven for these feathered guests, creating a breathtaking natural spectacle that is a delight for bird-watchers. Our efforts have not only enabled these birds to thrive but have also transformed Chittaranjan Township into a popular tourist destination. Visitors from far and wide flock visit CLW to witness this awe-inspiring natural wonder, as they marvel at the beauty and diversity of the migratory birds that call our township home. The sight of these majestic creatures taking flight against the backdrop of the serene water bodies is a truly unforgettable experience.



Chittaranjan Locomotive Works not only manufactures world-class electric locomotives but also embodies the spirit of responsible and sustainable living. The administration's commitment to the environment has transformed this township into an eco-friendly oasis that welcomes and cherishes the diverse forms of life that call it home. CLW is a shining example of how industrial growth and environmental protection can coexist in harmony, setting a benchmark for sustainable development that other industrial towns can emulate.



## ➤ Highlights for the year 2023-24

- **CLW Produced 580 Locomotives in FY 2023-24:** CLW scripted another page of history by producing a record 580 locomotives on 31st March, 2024 in the FY 2023-24. This is the best-ever performance of CLW in any financial year.

- **Operation of Amrit Bharat Express train by CLW Manufactured Push Pull Locomotives:** CLW is upgrading old WAP-5 locomotives to operate in pairs for pulling Amrit Bharat trains. These locomotives will now feature EP Assist brake control for the first time. This technology ensures that brake commands are communicated swiftly from the locomotive to the coaches, resulting in faster and more uniform brake application throughout the train. As a result, there will be reduced and evenly distributed forces on the couplers between the coaches, improving safety. Additionally, this upgrade leads to a reduction in both braking distance and release time, enhancing overall operational efficiency and passenger comfort. 2(two) pairs have been commissioned so far.



- **Twin Loco (WAG-9HC) produced by CLW:** CLW introduces the WAG-9 HC twin locomotive, designed specifically for heavy haulage. This innovation features two WAG-9 locomotives permanently connected, with combined 12000 HP rating, for enhanced hauling capacity. Utilizing Co-Co bogies, it provides superior tractive effort of 1020 KN. It can haul loaded coal rake at 1:100 gradient without stalling.



- **9000 hp WAG-9HH locomotive 'Nav Utkarsh' rolled out in CLW:** The 9000 hp WAG-9HH (loco no.90009) locomotive "Nav Utkarsh" rolled out from Chittaranjan Locomotive Works. WAG-9HH "Nav Utkarsh" has undergone extensive profile modifications, with new crew friendly features & with new color scheme to enhance its performance, efficiency and safety setting new standards in locomotive production.
- **CLW rolls out 12000th Locomotive:** CLW achieved another milestone by producing 12000<sup>th</sup> locomotive. CLW's historical production includes 2,351 Steam Locomotives between 1950 and 1972, 842 Diesel Locomotives from 1968 to 1993, and 8,807 electric locomotives of various types up to September 28, 2023.
- **430th Electric Locomotive flagged off from ELAAU Dankuni Unit of CLW:** Electrical Loco Assembly and Ancillary Unit (ELAAU) Dankuni of CLW has scripted history by producing 430 electric locomotives since its inception in 2016.

- **3-phase Traction Motor Robotic Winding Machine inaugurated in CLW:** A state-of-the-art, high precision "3-phase Traction Motor Robotic Winding Machine" was inaugurated in TM Shop. This machine will enhance efficiency, quality & reliability of TMs by accurate & uniform coil winding.
- **Employees promoted under “One to One Promotion” Policy in CLW:** As part of a prime Human Resource reforms initiative, the policy of “one to one promotion” on the date of retirement against the employees retired had been adopted in in CLW.

- **General Manager dedicates Amrit Digital Gallery at Deshbandhu Loco Park in CLW:** The newly constructed Amrit Digital Gallery at Deshbandhu Loco Park in Chittaranjan has been dedicated by the then General Manager of CLW Shri Debi Prasad Dash. The glorious heritage and history, evolution of locomotive production & flora fauna of CLW has been beautifully depicted and showcased in this Amrit Digital Gallery.



- **"Amrit Dwar" and Unveils World Record monument inaugurated in CLW:** A world record monument symbolizing the achievement of CLW in producing 486 electric locomotives during the financial year 2021-2022 and the newly constructed "Amrit Dwar" which symbolizes the celebration 'Azadi Ka Amrit Mahotsav' near Rabindra Manch was unveiled. This Magnificent Heritage gate was first constructed on 12 Dec 1955 to mark the visit of Soviet PM Marshal Nikolai Bulganin at CLW.



- **Miyawaki forest created in CLW:** Strengthening the commitment towards afforestation and preservation of the environment, Team CLW has created a 'Miyawaki forest' in 8.2 acres of arid land. 'Miyawaki forest' is a step in furthering the novel Concept developed by Mr. Akira Miyawaki, a Japanese botanist. The concept envisages growth of Dense multilayer forest in small area. Under this project it is expected that More than 4000 trees will be planted in due course.

## CHAPTER - I PERFORMANCE IN BRIEF

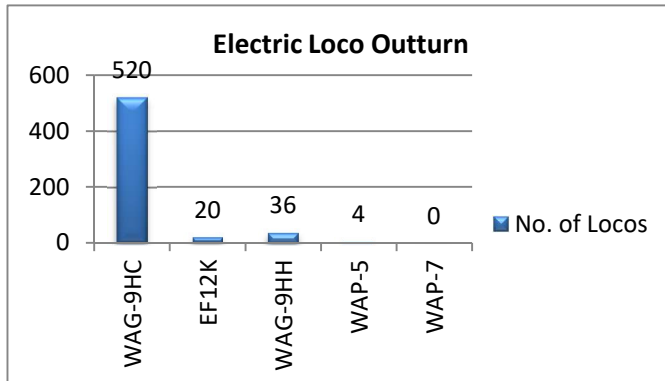
### 1.0 Production:

1.1 

<b>Turn Over</b>	:	Rs. <b>6559.81</b> Crores
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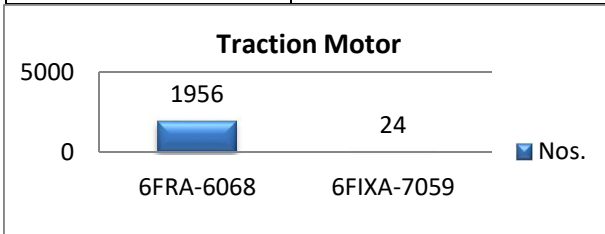
### 1.2 Electric Locomotives Out-turn:

WAG-9HC	419 + 101*
EF12K (WAG 9 TWIN)	20
WAG-9HH	36
WAP-5	04
WAP-7	00
<b>Total</b>	<b>580 (479+101*)</b>
* Despatched from DKAE	



### 1.3 Traction Motors Manufactured:

6FRA6068 AC	1956 nos.
6FXA 7059	24 nos.
<b>Total</b>	<b>1980 nos.</b>



1.4	<b>Steel Castings:</b>	2333.77 MT
1.5	<b>Value of Spares Supplied to Railways:</b>	Rs. 45900.38 Lakhs

## **CHAPTER – II**

### **FINANCIAL RESULTS**

#### **2.1 Turnover:**

##### **2.1.1 The total value of turn over as adjusted in the accounts to end of March'24 is as follows:**

(Figures in Rs. Thousands)

i.)	Locoworks	6557,92,72
ii.)	Steel Foundry	1,88,44
	<b>Total :</b>	<b>6559,81,16</b>

##### **2.1.2 The following is the breakup of the total turn-over:**

(Figures in Rs. Thousands)

<b>A. Value of Supplies</b>	<b>Loco</b>	<b>SF</b>
i) Locos	6034,83,60	0
ii) Other than locos	0	188,44
<b>B. Value of Components manufactured for Stock</b>	523,09,12	
<b>Total :</b>	<b>6559,81,16</b>	<b>188,44</b>

##### **2.1.3 Outturn of the Locos to end of March'24 is as follows:**

WAG 9HC:	520 Locos
WAg-9hc Twin:	10 sets (20 Locos)
WAP-5 Push Pull:	04 Locos
WAG-9HH:	36 Locos
<b>Total:</b>	<b>580 Locos</b>

#### **2.2 The average cost of production of locomotives (provisional) for the year 2023-24:**

(Figure in Thousand of Rs.)

Type of Loco	Direct Labour	Direct Materials	Over heads	ITC	Basic Cost	GST	TP excluding proforma charges
1	2	3	4	5	6(2+3+4-5)	7	8
WAG-9HC	56,72	81923	15049	12497	90147	16226	106373
WAP-9 HC Twin	1,13,44	163846	30098	24994	180294	32452	212746
WAG-9HH	49,20	108673	11534	16577	108550	19539	128089
WAP-5 Push Pull	70,50	96368	19311	18721	104008	18721	122729

- \* Note: 1) WAP-5 Push Pull locos are transferred on transfer price of WAP-5 2021-22.  
2) WAG-9HC twin is transferred twice the transfer price of WAG-9HC.

#### **2.3 Work in Progress (To end of March'24):**

It represents the balance under the Workshop Manufacturing Suspense and comprises:

(Figures in Rs. thousands)

	<b>Loco</b>	<b>SF</b>	<b>Total</b>
Work in Progress	37,02,79	151,01,38	188,04,17

## 2.4 Capital Investment:

The **Capital at charge** of this production unit stood at Rs. 194,60,864 thousands as on 31.03.2024 against Rs 168,56,748 thousands as on 31.03.2023.

### 2.4.1 The break-up of Capital-at-charge and others is as under:

#### 2.4.1.1 Fixed Assets :

(Figures in Rs. thousands)

FIXED ASSETS	TOWNSHIP		WORKSHOP		TOTAL	
	2022-23	2023-24	2022-23	2023-24	2022-23	2023-24
a) Land	4706	4706	310	310	5016	5016
b) Road	5892	5892	383	383	6275	6275
c) Building	207899	219803	80401	80401	288300	300204
d) Machinery	93	93	2280752	2284508	2280845	2284601
e) Water works	22209	39822	2507	8963	24716	48785
f) Electrical installation	95390	119282	32999	32999	128389	152281
g) Other Charges	48872	66021	22785	26632	71657	92653
h) General Charges	14615	14615	18466	18466	33081	33081
i) Projects	0	0	4126771	4174552	4126771	4174552
<b>GROSS</b>	<b>399676</b>	<b>470234</b>	<b>6565374</b>	<b>6627214</b>	<b>6965050</b>	<b>7097448</b>
<b>Return On Capital</b>	557	557	631	631	1188	1188
<b>NET</b>	<b>399119</b>	<b>469677</b>	<b>6564743</b>	<b>6626583</b>	<b>6963862</b>	<b>7096260</b>

#### 2.4.1.2 Floating Assets:

ASSETS	2022-23	2023-24
Purchase	-3067873	2467319
Sales	361520	1324010
Stores	7742525	6688048
W.M.S	4851906	1880419
Misc. Advance (Cap.)	4808	4808
<b>TOTAL</b>	<b>9892886</b>	<b>12364604</b>
<b>TOTAL ASSETS</b>	<b>16856748</b>	<b>19460864</b>

2.4.1.3 Assets created out of Capital fund is Rs. **48,76,01** thousand.

Assets created out of Spl. Rly. Safety Fund is Rs. **24,28** thousand

## 2.4.2 Depreciation Reserve Fund:

(Figures in Rs. Thousand)

i.	Opening balance as on 01.04.2023:	11287892
ii.	Credit on account of Annual Contribution :	240000
iii.	Credit on account of interest on Fund Balance :	380974
iv.	Withdrawal during 2023-24(Net) :	86371
v.	Closing balance as on 31.03.2024:	11822495

### 2.4.2.1 The expenditure for renewal and replacement from the fund in respect of the following:

(Figures in Rs. Thousand)

i.	Computerization	0
ii.	Track Renewals	0
iii.	Signal & Telecomm.	0
iv.	Other Electrical Works	25741
v.	Machinery & Plant	8558
vi.	Workshop including Production Units	39335
vii.	Staff welfare	10139
viii.	Other Specified Works	2599
	<b>TOTAL :</b>	<b>86371</b>

### 2.5.1 Statement Showing Indirect Expenditure of Loco works for the Year 2023-24:

(Figures in Rs. thousand)

Sl. No.	Particulars	2022-23	2023-24
1.	Indirect Labour	5190005	5267091
2.	Indirect Materials, contingent & other Misc. Charges.	740452	1021332
3.	Freight & Handling Charges	4054	12821
4.	Superannuation, Gratuity etc.	0	0
5.	Pension Fund	1323000	1314000
6.	Bulk purchase of Electricity	108614	317629
7.	Appropriation to DRF	405000	216000
8.	New minor works chargeable to WMS	0	0
9.	Stock Adjustment A/C	0	0
10.	Recoveries on account of H/Rent, Elec. Charges etc.	-248044	-155492
11.	Share of AOH & TOH transferred to Steel Foundry	-16300	-16300
12.	Fixed overhead transferred from Steel Foundry	0	0
13.	Contribution to New Pension Scheme	255741	327674
14.	Excise Duty / GST	37840	85563
	<b>TOTAL</b>	<b>7800362</b>	<b>8390318</b>



## 2.5.2 Statement Showing Outturn Of Locomotives During The Year 2023-24.

(Figures in Rs. thousand)

Particular	No. of units turned out	Total Cost (Provisional)	Total Sale value	Average sale value per unit (without GST)
1	2	3	4	5
<b>Order for</b>				
550 Nos. HHP electric locos ex. CLW/DLW/BHEL/ Trade @ Rs. 13 Cr. 1289/20-21, item No. 219 of 23-24				
WAG-9HH	1	12,51,27	12,51,27	12,51,27
1318 Nos. HHP electric locos ex. CLW/BLW/DMW /BHEL /Trade @ 15 Cr. 1262/21-22 item No. 07 of 23-24.				
WAG-9HC	226	2319,75,44	2319,75,44	10,26,44
WAG-9HH	23	287,79,21	287,79,21	12,51,27
2108 Nos. HHP electric locos ex. CLW/BLW/DMW /BHEL /Trade @ 15 Cr. Item no. 269 of 23-24.				
WAG-9HC	303	3110,11,32	3110,11,32	10,26,44
WAG-9HH	12	150,15,24	150,15,24	12,51,27
WAP-5	4	41,60,28	41,60,28	10,40,07
2108 Nos. HHP electric locos ex. CLW/BLW/DMW /BHEL /Trade @ 15 Cr. 1168/19-20, 13/20-21, 14/21-22, item No. 06 of 23-24				
WAG-9HC	11	112,90,84	112,90,84	10,26,44
	<b>580</b>	<b>6034,83,60</b>	<b>6034,83,60</b>	

### Notes:

1. The figures of outturn given above are related only to Locomotives turned out during 2023-24.
2. The figures in column (4) represent sale value (Excluding GST).
3. The average cost (provisional) of loco including share of expenditure of Rly. Board and Audit has been furnished below:

(Figures in Rs. thousand)

Type of Expenditure	WAG-9	WAG-9(HH)	WAP-5
Cost of production	10,26,44	12,51,27	10,40,07
Share of exp. of Rly. BD & Audit	4,54	5,28	5,26
<b>Total</b>	<b>10,30,98</b>	<b>12,56,55</b>	<b>10,45,33</b>

## 2.5.3 The Number and Transfer Cost of Locomotives produced during last 5 years:

(Figures in Rs. thousand)

Type of locos	2019-20		2020-21		2021-22		2022-23		2023-24	
	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost
WAG-9	364	3215,19,16	337	3255,98,08	450	4022,42,54	422	4584,60,80	540	5542,77,60
WAP-7	39	450,45,00	33	346,89,93	13	117,39,02	0	0	0	0
WAP-5	28	273,17,64	20	223,34,60	18	191,81,23	8	98,18,27	4	41,60,28
WAG-9HH					5	80,00,00	6	96,00,00	36	450,45,72
<b>Total</b>	<b>431</b>	<b>3938,81,80</b>	<b>390</b>	<b>3826,22,61</b>	<b>486</b>	<b>4411,62,79</b>	<b>436</b>	<b>4778,79,07</b>	<b>580</b>	<b>6034,83,60</b>

#### 2.5.4 Statement showing outturn of Steel Foundry during the year 2023-24:

(Figures in Rs. Thousand)

Particular	Outturn for the year (in MT)	Total cost Price	Total Sale value	Average sale value (Per MT)
1	2	3	4	5
a. Bogie Items	21.85			
b. Other Items				
Light	56.84			
Medium	2671.40	28,78,21	28,78,21	105
Heavy	0			
c. Manganese Steel Casting	0			
	<b>2750.09</b>	<b>28,78,21</b>	<b>28,78,21</b>	

Notes:

- The figures in column 3 represent approximate cost of casting turned out during the year 2023-24.
- The figure in column 4 represents value realized during the year.
- To arrive at the figures under column 5, column 4 is divided by column 2.
- The average cost per MT of different type of casting as in column 2 and share of expenditure of Rly Board's office and Dy. Comp. & Auditor General of India's Office is as follows:
  - Cost of production Rs. 105 thousand per MT.
  - Share of expenditure of Railway Board is Rs. 0.28 Thousand per MT.

The actual cost of different categories of casting from year to year is furnished at 2.5.6

**2.5.5. Statement Showing Indirect Expenditure of Steel Foundry for the Year 2023-24:**

(Figures in Rs. thousand)

Sl. No.	Particulars	2022-23	2023-24
1.	Indirect Labour	189700	183674
2.	Indirect Materials, contingent & other misc. Charges.	155956	39167
3.	Freight & Handling Charges	0	0
4.	Superannuation, Gratuity etc.	0	0
5.	Pension Fund	146000	146000
6.	Bulk purchase of Electricity	13755	5502
7.	Appropriation to DRF	24000	24000
8.	New minor works chargeable to WMS	0	0
9.	Stock adjustment a/c	0	0
10.	Recoveries on account of H/Rent, Elec. Chgs. Etc.	-3059	-3199
11.	Share of AOH,TOH transferred to Locoworks	16300	16300
12.	Fixed overhead transferred from Steel Foundry	0	0
13.	Cont. to New pension Scheme	32953	12092
14.	GST	8389	8004
	<b>TOTAL</b>	<b>583994</b>	<b>431540</b>

**2.5.6 Year-wise outturn and actual cost of Steel Foundry for the last five years:**

(Figures in Rs. thousand)

S N	Particulars of casting	2019-20		2020-21		2021-22		2022-23		2023-24	
		Qty in MT	Cost	Qty in MT	Cost	Qty in MT	Cost	Qty in MT	Cost	Qty in MT	Cost
1.	Carbon Steel Casting										
	i) Bogies items									22	
	ii). Other items										
	Light	16				7		104		57	
	Medium	3072	148,14,92	2430	103,92,44	2712	35,85,76	2277	17,56,95	2671	28,78,21
	Heavy										
	<b>Total</b>	<b>3088</b>	<b>148,14,92</b>	<b>2430</b>	<b>103,92,44</b>	<b>2719</b>	<b>35,85,76</b>	<b>2381</b>	<b>17,56,95</b>	<b>2750</b>	<b>28,78,21</b>

## 2.6 Appropriation of Accounts for 2023-24

### Balance under Suspense Heads as on 31.03.2024

Heads	Balance as on 31.03.2024		Balance relating to 2023-24		Balance relating to 2022-23		Balance prior to 2022-23		Clearance upto june'24.	
	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit
Misc. Advance (Capital)	4808	0	0	0	0	0	4808	0	0	0
Purchase (Capital)	29340552	26873233	25474048	4060154	1067341	4590044	2799163	18223035	500000	700000

## 2.7 Manufacturing Account of Locoworks for the Year 2023-24:

(fig. in Rs.)

Debit				Credit			
SN	Particulars	2022-23	2023-24	SN	Particulars	2022-23	2023-24
I	<b>To opening balance</b>			I	<b>By Work done for Railways:</b>		
	Work in progress	2662395951.35	3666155342.00		Supply of Locomotives including TOT	47268212952.00	60348360348.00
II	<b>To Labour</b>				<b>Supply of Spares</b>		
	Workshop (Direct)	3001264358.94	2990732047.79				
	Workshop (Indirect)	1215653199.06	1148515121.21	II	<b>By Capital and Stores Suspense:</b>		
	Admn. & Service Deptt.	4039237814.00	4109490090.00		Manufactured Materials	6101082329.00	4961935222.00
III	<b>To Stores</b>						
	Issue from Stock :-			III	<b>By Capital Works:</b>		
	Workshop (Direct)	44542960809.66	51998239400.36		Plant & Machinery		
	input tax credit	-1274098233.80	0.00		Other Works.		
	Workshop (Indirect)	451931356.36	447206336.95	IV	<b>By DRF Works</b>		
	Department other than Workshop	21759240.75	21931893.25	V	<b>By Works done on deposit account</b>		
	<b>Misc. Adjustment :-</b>				Other than loco (Pvt. /PSU)		
	Workshop (Direct)	0.00	0.00				
	Workshop (Indirect)	-9565934.24	183196265.93	VI	<b>By Returned Stores:-</b>		
	Department other than workshop	266262001.32	325900214.45		Direct		1771538160.88
IV	<b>To Indirect Charges :-</b>				Indirect	559019827.73	80364552.80
	Appropriation to DRF	216000000.00	216000000.00		New Minor Works		
	Superannuation Gratuity etc.						
	Cont. To new pension scheme	272604242.40	327674283.80	VII	<b>By Closing Balance</b>		
	Freight & Incidental Charges	31181649.98	12820640.44		Work in Progress	3666155342.00	370279391.49
	Appropriation to Pension Fund	1314000000.00	1314000000.00				
V	<b>To Other Charges :-</b>						
	Bulk Purchase of Electricity	215128439.00	317629047.00				
	GST	66474590.91	85562934.82				
	Misc.Charges including SBF, TOT	128296809.90	-84239551.52				
	Amortization of WIP balance of SF	475344051.00	406669653.00				
	New Works, addition & replacement						
	Medical Exp. Including COVID Exp.	218228102.36	216786374.44				
	Chargeable to Overheads						
VI	To Recovery of HRA, Elec. Chrgs & others	<b>-244288002.22</b>	<b>-155492422.75</b>				
VII	To Share of AOH & TOH to SF	-16299996.00	-16299996.00				
VIII	To Transfer of fixed overhead from SF						
IX	<b>To Developmental work</b>						
X	Clearance from stock Adj. Account	0					
	<b>TOTAL</b>	<b>57594470450.73</b>	<b>67532477675.17</b>			<b>57594470450.73</b>	<b>67532477675.17</b>

## 2.8 Manufacturing account of steel foundry for the year 2023-24:

(fig. in Rs.)

Debit				Credit			
SN	Particular	2022-23	2023-24	SN	Particular	2022-23	2023-24
I	<b>To opening balance</b>			I	<b>By Work done for Railways:</b>		
	Work in progress	1088623032.21	1185749838.14		Supply of Locomotives including TOT		
					Supply of Spares	-4669422.00	18844045.00
II	<b>To Labour</b>						
	Workshop Direct	61673329.85	68584184.53	II	<b>By Capital and Stores Suspense:</b>		
	Workshop Indirect)	139943492.15	135411772.47		Manufactured Materials	180364616.00	268977120.00
	Admn. & Service Dept	49756361.00	48262031.00				
III	<b>To Stores</b>			III	By Capital Works:		
	Issue from Stock :-				Plant & Machinery		
	Workshop Direct	102496606.06	518755451.91		Other Works. (for loco)		
	Workshop Indirect	132665655.76	2336978.39	IV	By DRF Works		
	Department other than Workshop	2000491.98	1126644.45	V	By Work done on deposit account		
	<b>Misc. Adjustment :-</b>				Other than loco (Pvt. /PSU)		
	Workshop Direct	0.00	0.00				
	Workshop Indirect	31171390.20	20016519.17	VI	<b>By Returned Stores:-</b>		
	Department other than workshop	29162232.73	39743148.59		Direct		
IV	<b>To Indirect Charges :-</b>				Indirect	39040900.39	24056205.62
	Appropriation to DRF	24000000.00	24000000.00		New Minor Works		
	Superannuation Gratuity etc.						
	Cont. to new pension scheme	32952757.60	12091550.20	VII	By Closing Balance		
	Freight & Incidental Charges	0.00	0.00		Work in Progress	1185749838.14	1510138445.84
	Appropriation to Pension Fund	146000000.00	146000000.00				
V	<b>To Other Charges :-</b>						
	Bulk Purchase of Electricity	13755000.00	5502000.00				
	Excise Duty/GST	8388703.99	8003911.61				
	Misc. Charges including SBF, TOT						
	Tech. Fees, Royalties etc.						
	New Works, addition & Replacement						
	Chargeable to Overheads						
	Amortization of WIP balance to Locoworks	-475344051.00	-406669653.00				
VI	<b>To Recovery of HRA &amp; Elect. Charges</b>	-3059066.00	-3198557.00				
VII	To Share of AOH & TOH to SF	16299996.00	16299996.00				
VIII	<b>To Transfer of fixed overhead from SF</b>						
IX	<b>To Developmental work</b>						
	<b>TOTAL</b>	<b>1400485932.53</b>	<b>1822015816.46</b>			<b>1400485932.53</b>	<b>1822015816.46</b>

## 2.9 BALANCE SHEET: for the year 2023-24

### 2.9.1 Liabilities:

(Figures in Rs. thousand)

SL. No.	Particulars	2021-22	2022-23	2023-24
1.(a)	<b>INVESTMENT FINANCED FROM :</b>			
	Loan Capital (Advanced By Central Exchequer)	13998218	16856748	19460864
	Railway Capital Fund	487601	487601	487601
	S.R.S.F	0	0	0
	Depreciation Reserve Fund	3697	3697	3697
	Revenue	0	0	0
	R.R.S.K.	97589	124966	141225
1.(b)	Machinery & Plant received free of cost	10752	10752	10752
	<b>TOTAL</b>	<b>14597857</b>	<b>17483764</b>	<b>20104139</b>
2.	<b>Railway Reserve Fund :</b>			
	Depreciation Reserve Fund	10689536	11287892	11822495
	Pension Fund	11641167	11605437	11417466
	<b>TOTAL</b>	<b>22330703</b>	<b>22893329</b>	<b>23239961</b>
3.	<b>Banking Account :</b>			
	Provident Fund	9404343	9181323	8671128
	Misc. Deposit etc.	2585852	2920587	3577969
	<b>TOTAL</b>	<b>11990195</b>	<b>12101910</b>	<b>12249097</b>
4.	<b>Demand Payable :</b>			
	Liabilities remains undischarged at the end of the year	39093	39105	39105
5.	Net Liabilities existing out of inter department transactions	0	0	0
	<b>GRAND TOTAL</b>	<b>48957848</b>	<b>52518108</b>	<b>55632302</b>

### 2.9.2 Assets:

(Figures in Rs. thousand)

SL. No	Particulars	2021-22	2022-23	2023-24
1.	Cash In Hand	39093	39105	39105
2.	Block Assets (Contra item 1 of liabilities)	14597857	17483764	20104139
3.	Fund with Central Govt. (Contra item 2 & 3 of liabilities)	34320898	34995239	35489058
4.	Misc. Advance (Sundry Debtors) To be recovered or adjusted	0	0	0
5.	Traffic Earnings (yet to be realized at the end of the year)	0	0	0
6.	Items awaiting adjustment with Civil departments, states etc.	0	0	0
	<b>Grand Total</b>	<b>48957848</b>	<b>52518108</b>	<b>55632302</b>

**CHAPTER – III**  
**ELECTRICAL ENGINEERING**

**3.1 Electric Locomotive Production:**

CLW has turned out 9077 Electric Locos till 31<sup>st</sup> March, 2021. The Production programme (Target vs. Achievement) for the last 10 years has been shown at Annexure – 3.1. The year wise outturn of electric locomotives dispatched from CLW till 2023-24 is given at Annexure 3.2.

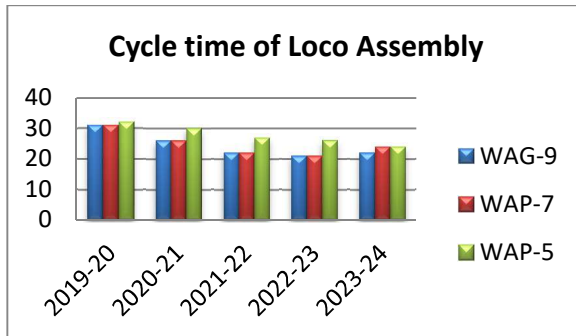
During the year 2023-24, 580 Electric Locomotives have been turned out by CLW and details of the same are given as under:

	CLW/Chittaranjan	ELAAU/DKAE	Total
WAG-9HC	419	101	520
EF12K (WAG 9 TWIN)	20	0	20
WAG-9HH	36	0	36
WAP-5	4	0	4
WAP-7	0	0	0
Total	479	101	580

**3.2 Cycle time of Loco Assembly & Testing:**

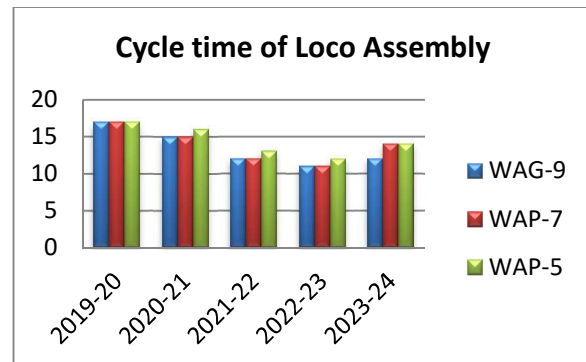
**A. If CLW Shell**

Year	Loco Assly. & Testing(days)		
	WAG-9	WAP-7	WAP-5
2019-20	31	31	32
2020-21	26	26	30
2021-22	22	22	27
2022-23	21	21	26
2023-24	22	24	24



**B. If Trade Shell**

Year	Loco Assly. & Testing(days)		
	WAG-9	WAP-7	WAP-5
2019-20	17	17	17
2020-21	15	15	16
2021-22	12	12	13
2022-23	11	11	12
2023-24	12	14	14





### 3.3 Achievements of Important Work/Objectives:

- 3.3.1 In the month of July 2023, CLW/CRJ has turned out 65 (56 CLW + 9 DKAE) locomotives which is highest ever monthly production of any financial year and surpassing previous best 62 (55 CLW and 7DKAE).
- 3.3.2 During Current year 2023-24, CLW has turned out total 580 Locomotives, which includes 479 locomotives by CLW CRJ unit and 101 Locomotives by ELAAU/Dankuni unit of CLW, which is highest ever production for any financial year. This is a landmark achievement of CRJ/CLW Unit as well as ELAAU/Dankuni unit of CLW. CRJ/CLW unit and ELAAU/Dankuni unit of CLW have surpassed the previous best production record of 419 loco in FY 2021-22 and 75 Locomotives in FY 2022-23 respectively.
- 3.3.3 Modernization of Information system at entrance of Shop-16 & 19 with inauguration of Information Centre & Display of various posters including history of CLW.
- 3.3.4 Enhancement of Safety at T&C Section of Shop-16&19.
- 3.3.5 TSD for Push-Pull enabled Aerodynamic WAP-5 loco has been prepared and circulated to Zonal Railways.
- 3.3.6 Design Obsolete loco items, old & outdated tools, scrap materials etc. were disposed off and sent to GSD and free space is created to accommodate new material. (i) Ferrous items=4.4MT (ii) Non-ferrous/CU items=5.1 MT.
- 3.3.7 During 2023-24, CLW has turned out 10 sets of EF12K locomotives comprising of 12000 hp capacity.

### 3.4 Inspection:

CLW has got four inspection cells operating in Mumbai, Delhi, Howrah and Bangalore. These cells are responsible to inspect the materials, monitor the supply position capacity-cum-capacity assessment of prospective vendors, prototype testing etc. During the year 2023-24, the inspection cells inspected the materials worth following:

S.No.	Place	Value of Materials Inspected in crores of Rupees
1.	Mumbai cell	2649.09 Crores
2.	Howrah cell	781.53 Crores
3.	Bangalore cell	1854.26 Crores
4.	Delhi cell	1741.42 Crores

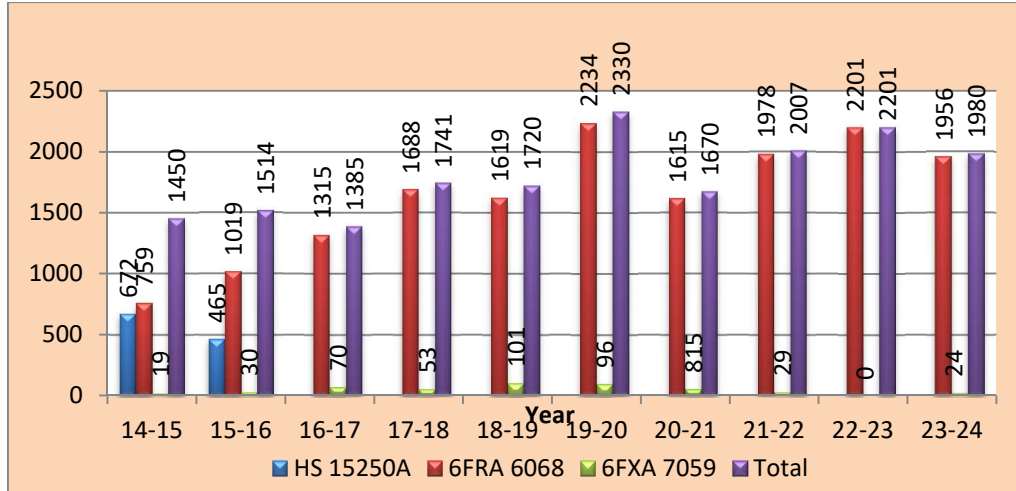
### 3.5 Traction Motors:

- 3.5.1 Total production of Three Phase Traction Motors during the year 2023-24 was **1980** nos. of which 1956nos. 6FRA-6068 & 24nos. 6FXA-7059 against total annual target of 1924. Target of 2023-24 was 1900 nos & 24nos. for 6FRA-6068 & 6FXA-7059 respectively. This outturn of TM is 103% of annual production target.

### 3.5.2. 3-Phase Traction Motors Type 6FRA 6068 & 6FXA 7059 :

Year wise production of all type of TMs manufactured at CLW from the year 1969-70 onwards is given in Annexure 3.3.

Following Bar chart shows the production trend of Traction Motors at CLW:



TM Type	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
HS-15250A	672	465	-	-	-	-	-	-	-	-
6 FRA 6068	759	1019	1315	1688	1619	2234	1615	1978	2201	1956
6FXA 7059	19	30	70	53	101	96	55	29	-	24

### 3.5.3 Supply of Spares to Zonal Railways:

The following materials were supplied to zonal Railways as RSP and against vetted indents during the year 2023-24:

ITEM	QTY.
3 Phase Traction Motor (Co-Co) 6FRA-6068	36 nos.
3 Phase Traction Motor (Bo-Bo) 6FXA-7059	04 nos.

### 3.5.4 Improvements to Enhance Reliability:

TM Reliability measures undertaken:

- RCA of earlier Deflector came out cases were done and it was found that rubbing occurred between DE side Deflector and Bearing cap at first interface. Ensuring clearance between the Deflector and the Bearing Cap (stator) on higher side (700-870 microns) since march 2023, is being continued. Due to this measure, Bearing seizure cases have been reduced to only 01 for TM manufactured by CLW after March-23. Measurement of these clearance are checked by assembly section & recorded in TM Data sheet.

- Measurement of Radial clearance of unmounted Roller bearings have started from Dec-23. It will further improve reliability of TM.
- RCA of internally rejected TM due to vibration was done. Instructions were issued in February-24 for fitment of annular ring of Bearing at NDE side by induction heating only. It will further eliminate vibration and high metal content cases.
- In some cases, height of End Frame NDE was observed to be lower than height of Stator chamber NDE resulting in Bellow plate not sitting properly and forced ventilation air escaping from sides. Such cases needed to be rectified by replacing End Frame of suitable height to match the Stator Chamber. To completely eliminate this problem drawing of Stator chamber(NDE) height has been modified as 700(+1/+0) mm and End Frame (NDE) height as 700(+2/+1) mm. 07 nos. Drawings have been modified for improving reliability.
- Besides earlier reliability measures continued:
  - Change of Raw Material of Thrust Carrying piece of TM power cables from Steel to SRBGF to avoid rubbing of TM cables and heat generation due to eddy currents.
  - Change of grade of various hexagonal head screw for eliminating cases of bolt breakage.
  - To avoid Grease nipple missing cases, thread length of Grease nipple increased from 6mm to 9mm and implemented.
  - Check sheets of 24 major process prepared and implemented in TM shop.
  - Measurement of Shaft Dia. at Deflector & racer seating after actual pinion mounting and ensuring interferences to be strictly within prescribed limits as per RDSO SMI-278 and revised Work Instructions.
  - Measurement of clearance between stator labyrinth (Bearing Cap) & rotor labyrinth (Outer Labyrinth DE) in assembled condition to avoid any chance of Bearing seizure.
  - Supply of 11 components in a single wooden box with CMM measurement sheet. Each box having separate compartment for each component.
  - Root cause Analysis of each TM failure case done & staff counseled at shop floor with their acknowledgement.
  - Due to above measures 100days failure of bearing seizure cases reduced from 17 in 2022-23 to 04 in 2023-24.
  - 06 work instructions for TM assembly were completely revamped by incorporating processes, critical measurements and interferences. One new WI was also issued for dispatch work of TM. Similarly, 16 Work instructions related to Coil Formation, Insulation, Stator winding, connection, VPI & Testing of Stator have been modified as per requirement of IRIS.

### **3.5.5 Drive taken for Review & Digitalization of Specifications & STRs:**

All 56 specifications of TM items got reviewed & Digitized with Digital signatures and uploaded in UVAM. These includes preparing & digitizing 09 new specifications.

Similarly, all 64 STRs were got Reviewed, digitized with Digital signatures and uploaded in UVAM.

### **3.5.6 Thrust given to Vendor Development.**

31 nos. of vendors were got approved as regular vendor during 2023-24. Out of these, 16 nos. of items were having less than 05 sources. New indigenous sources were identified for Basic Resin SI-32, another imported item.

### **3.5.7. Innovations & Developmental work in TM Shops:**

**The following M&P items have been added during 2023-24:**

- Two nos. Induction Heaters commissioned.

### **3.5.8 Developmental and Other Works:**

#### **Improving House Keeping, Cleanliness, Condemnation of old M&Ps & IRIS Certification**

- Housekeeping and cleaning were drastically improved by taking special drive involving Staff , Supervisors and officers.
- All old and obsolete scrap materials lying at shop floor and at various corners were disposed off.
- Usable materials rearranged at specific location with Signage.
- Failure /Rejection at each stage, Work Instructions, drawings displayed.
- Relevant SMIs were made available at all section of TM shops.
- IRIS Follow up Audit was successfully cleared by TM shops in October-2023 by closing all NCs by modifying Work Instructions, procuring Testing Equipments i.e. DFT Meter for measuring paint thickness, Go-No Go Gauge Thread Plug M-20/M-30, Introducing 24 nos. Check sheets for major process of manufacturing Calibration of all Tools, Jig & Fixture, Measuring Instruments got done.

### **3.6 Electric Loco Fabrication Group of Shops (ELF):**

**3.6.1** Electric Loco Fabrication Group of Shops consists of Shop ELS- 12, 15, 17 and 26. The following are the main activities of these shops:

#### **3.6.1.1 ELS-12 Shop.**

- Fabrication of WAG-9HC & WAP-5 shell.

#### **3.6.1.2. ELS-15 Shop**

- Fabrication of WAG-9H & WAP-5 shell.
- Sand pipe holder for WAP-5.
- Mounting Bkt. E-70 manifold for WAG-9H & WAP-5.
- Bracket for Safety sling of Battery Box & Compressor for 3-phase loco.
- Hotel Load Cable tray for WAG-9.
- Junction Box for WAP-5.
- R.S. Bkt for WAG-9HC & WAP-5.
- Air Drier Bkt. for WAP-5.
- Double check valve Bkt. for WAP-5.
- Unloader valve ISO cock Bkt. for WAG-9.
- Frame Bkt. Assly. for WAP-5.
- T. Bracket for WAG-9.
- Anti Vibration Bkt.

### 3.6.1.3. ELS-17 Shop.

- Oxy-cutting of MS Sheets and Plates for shell, loco production.
- Fabrication of Under-frame of all (WAG9H & WAP5) types of 3 phase electric locos.

### 3.6.1.4. ELS-26 Shop

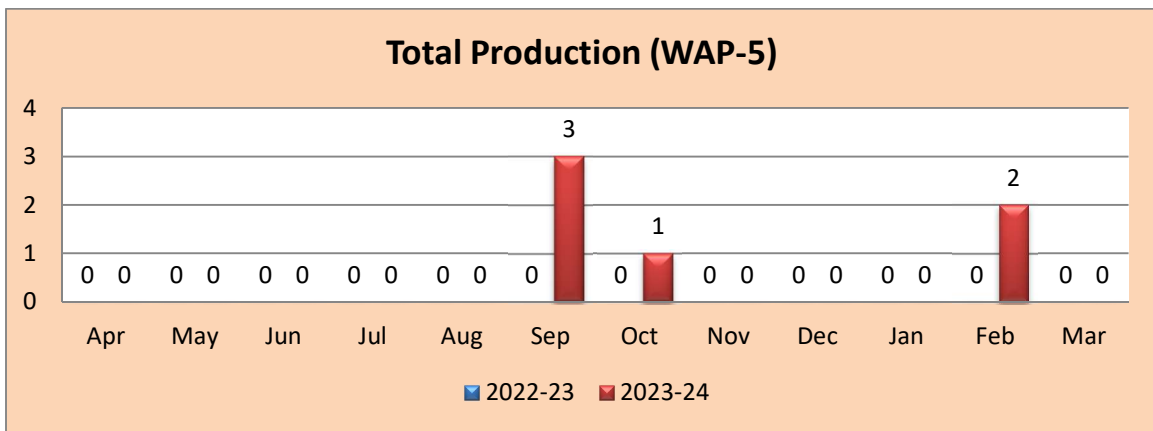
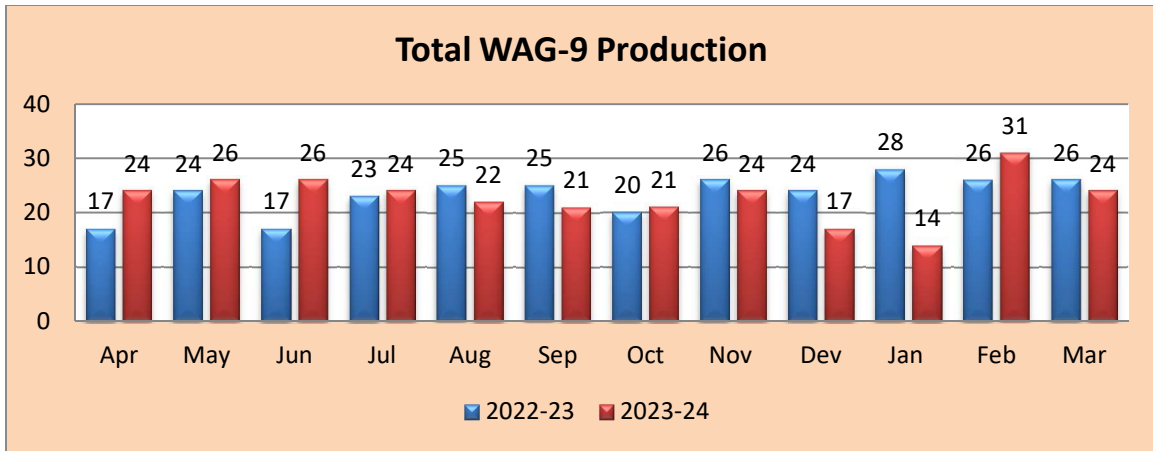
- Fabrication of WAG9H & WAP-5 shell.

### 3.6.2 Production of Electric Loco Fabrication Group of shops during the year 2023-24:

•	Total shell produced in 2023-24		280 nos.
•	Loco Type-wise Breakup	WAG9-HC/HH/TWIN	274
		WAP5	06

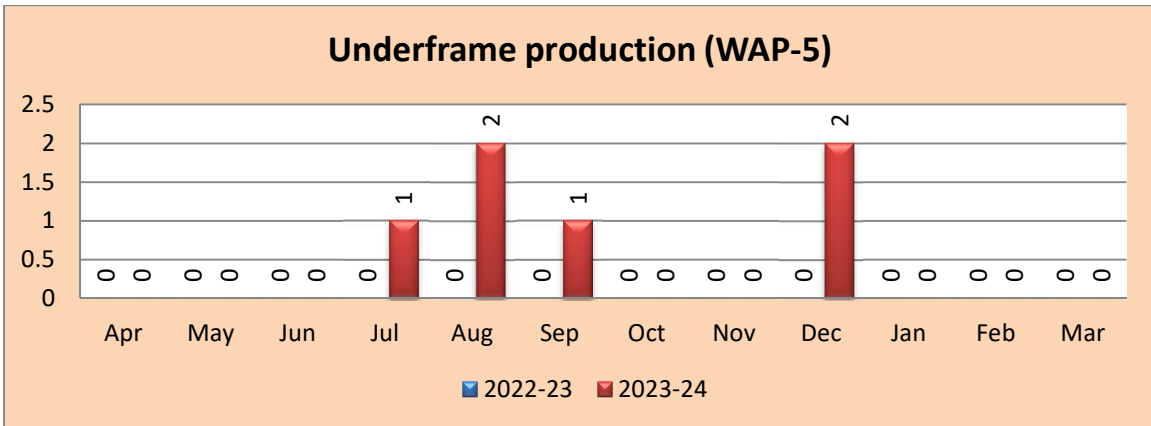
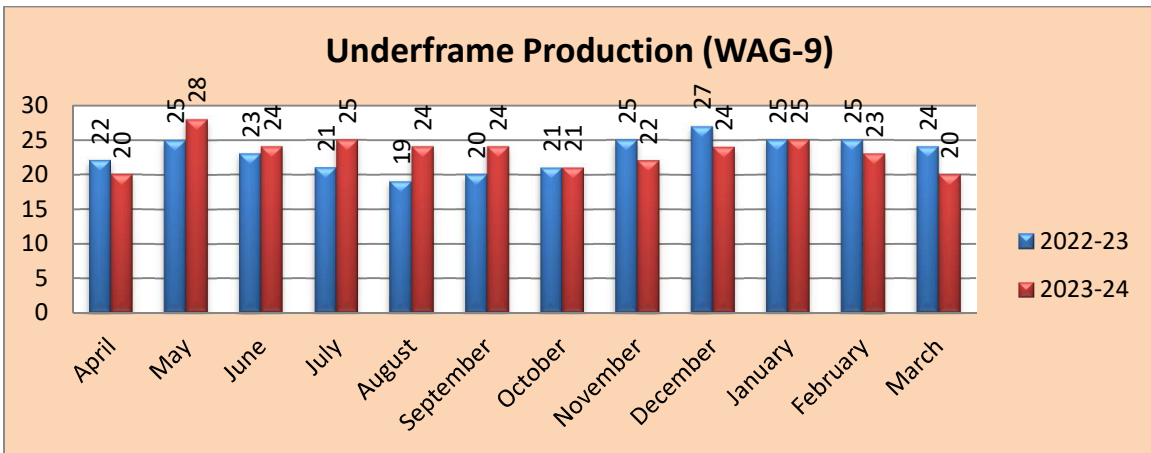
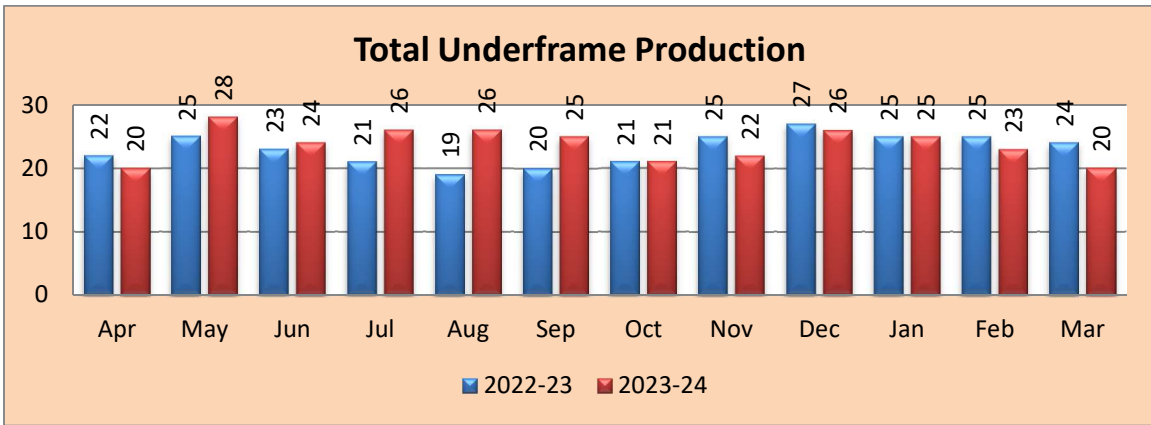
#### Comparative inhouse shell production of 2022-23 & 2023-24

Loco type	3-Phase				Total	
	TGHC/TGHH/TWIN(WAG9)		TP (WAP-5)			
Year Months	2022-23	2023-24	2022-23	2023-24	2022-23	2023-24
April	17	24	0	0	17	24
May	27	26	0	0	27	26
June	17	26	0	0	17	26
July	23	24	0	0	23	24
August	25	22	0	0	25	22
Sept.	25	21	0	3	25	24
Oct.	20	21	0	1	20	22
Nov.	26	24	0	0	26	24
Dec.	24	17	0	0	24	17
Jan.	28	14	0	0	28	14
Feb.	26	31	0	2	26	33
March	26	24	0	0	26	24
Total	281	274	0	6	281	280



### Comparative underframe position of 2022-23 and 2023-24

Loco type	3-Phase				Total	
	TGH (WAG-9H/HC/HH)		TP (WAP-5)		2022-23	2023-24
Year Months	2022-23	2023-24	2022-23	2023-24		
April	22	20	0	0	22	20
May	25	28	0	0	25	28
June	23	24	0	0	23	24
July	21	25	0	1	21	26
August	19	24	0	2	19	26
Sept.	20	24	0	1	20	25
Oct.	21	21	0	0	21	21
Nov.	25	22	0	0	25	22
Dec.	27	24	0	2	27	26
Jan.	25	25	0	0	25	25
Feb.	25	23	0	0	25	23
March	24	20	0	0	24	20
<b>Total</b>	<b>277</b>	<b>286</b>	<b>0</b>	<b>6</b>	<b>277</b>	<b>286</b>



### 3.7 Electric Loco Bogie Group of Shops:

3.7.1 Electric Loco Bogie group of Shops consist of Shops ELB-05, ELB-18 and ELB-25. The following are the main activities of these shops:

### 3.7.1.1 ELB– 05 Shop:

- Oxy-cutting of steel plates required for WAG-9HC Bogie frame production.
- Straightening and edge milling of plates cut by Oxy-cutting section.
- Fabrication of WAG-9HC bogie frame.
- Piping of WAP-5 bogie frames.
- Trial Run testing of motorized wheel sets.
- Assembly of WAG-9HC motorized bogies.
- Assembly of WAG-9HH motorized bogies.

### 3.7.1.2 ELB-18 Shop:

- Trial run of motorized wheel set.
- Assembly of WAG-9HC motorized Bogie.
- Machining of fabricated bogie frames of WAG-9HC loco.
- Assembly of WAG9-HH Motorized bogie.
- Assembly of WAP5 Motorized bogie.

### 3.7.1.3 ELB–25 Shop:

- Fabrication of bogie frames of WAG-9HC.
- Motor Supporting Arm for WAP-2

## 3.8 Outturn 2023-24 (April'23 to March'24):

### 3.8.1 Assembly of Motorized Bogie during 2023-24:

Sl no.	Item	Total
1.	WAG-9HC	408 Loco set
2.	WAG-9HH	33 Loco set
3.	WAP-5	03 Loco set
	Total	444 Loco Set

### 3.8.2 Fabrication of Bogie Frame for 3-Ph. Loco:

Sl no.	Item	Total
1.	WAG-9HC Bogie frames	84 L/Set
	Total	84 L/Set

### 3.8.3. Achievements:

**3.8.3.1 Manufacturing of Motorized Bogie Assembly:** Total 444 L/Set motorized bogie have been assembled in the FY 2023-24 which is the 04 Loco Set (08 Nos. bogie) more than target 2023-24 440 Loco Sets.



3.8.3.2 **Bogie Fabrication of WAG-9HC:** 84 Loco sets bogie frames have been manufactured against annual target of 84 loco sets.

**3.8.3.2 OBJECTIVE 2023-24:**

Quality objective:

SN	Objective	Status on 2023-24	Status on 2022-23	Remarks
01.	3% more first time right in bogie assembly work w.r.t. previous year	41.41%	31.44%	Target Achieved
02	100% FTR bogie machining.	100%	100%	Target Achieved
03	Reduction in rework hours/Loco by 5%	1.38 Hrs./Loco	2.65 Hrs./Loco	Target Achieved

EMS Objective:

SN.	Objective	Status on 2023-24	Status on 2022-23	Remarks
01.	Disposal of waste packing materials on daily basis	79.95%	78.91%	1.04% improved.

OHSAS Objective:

SN	Objective	Status on 2023-24	Status on 2022-23	Remarks
01.	100% Medical check-up of staff & Supervisors	100%	100%	Target Achieved

**3.9 Production Control Organization:**

- This wing provides various supporting activities for the production of Electric Locomotives like timely release of production documents to shops, processing and planning for the manufacture of Electric Locomotives, Rate fixing, Method Study, calculation of Inhouse cost of Loco components and getting it vetted from Finance Department, man power planning, timely submission of various data to Railway Board and other organization.
- Production documents for the manufacture of 580 nos. Electric locomotives (540 nos. WAG-9HC, 36 WAG-9HH & 04 nos. WAP-5) for the year 2023-24 were sent to shops well in advance to ensure smooth production.
- The Planning Deptt. is continuously monitoring the booking of EIW and DW and the status of same is highlighted to concerned authorities. Efforts are being made to keep the EIW % within the limit of 15% as directed by the Rly. Board. For the year (2023-24), there has been remarkable improvement. The average EIW booking against Direct Worker for 2023-24 is 11.70% which is much less than stipulated limit of 15% as per Railway Board's guidelines.

- To improve productivity and to rationalize the Allowed time for optimum utilization of resources, Exhaustive time study of all the production activities has already been conducted by National Productivity Council (NPC) under Ministry of Commerce and Industry, Government of India. On the basis of final report submitted by NPC New allowed time has been implemented from 1<sup>st</sup> February 2024.

### **3.10 Quality:**

#### **3.10.1 Quality Objectives:**

- Inspection of locomotives and its components in the Inspection Shop to be done 100% on the basis of Work Instruction and their related Design, Drawing, Specifications and relevant Standards to meet the Quality requirements on continuous basis.
- Inspection within fortnight from date of receipt of call letter for inspection of Purchase items.
- 5% or minimum 5 nos. of inspection of materials offered by the Vendors per month, are to be personally inspected by the outstation inspection Officer in-charge.

(The above points are applicable for zone wise inspection Wings of CLW located at NDLS, Mumbai, Bangalore and Howrah.)

#### **3.10.2 Other objectives:**

- 3.10.2.1. Constant endeavor of Quality improvement of the products at all stages of manufacturing which are turned out from different shops of CLW.
- 3.10.2.2. To carry out inspection of various assembly and sub-assembly at TM Shops, Wheel Shop, HMS, LMS, Loco Fabrication Shop & Loco Assembly Shops and also Steel Foundry Shops.
- 3.10.2.3. To certify the Material Movement Slip for movement of product conforming to the drawings/WI/Specification, from one shop to other and consequently clearing Job Cards related to that product.
- 3.10.2.4. Preparation of Inspection Check sheets in soft copy with detail references to inspections done at various stages of loco manufacturing, testing and commissioning. These are mailed to user Railways with equipment particulars list for each loco in the form of Loco Inspection Certificate.

#### **3.10.3 Achievements:**

- 3.10.3.1 The deviations and deficiencies per loco observed during inspection reduced by 19.21% in year 2023- 2024 compared to previous year 2022-2023 thereby achieving quality improvement. Repeated inspection bookings were also reduced in year 2023-2024 compared to previous year.
- 3.10.3.2 The vital data for preparation of inspection check sheets as per Loco, are presently internally shared between various Inspection shops through Google sheet since June 2022.
- 3.10.3.3. Regular printing of all standard inspection check sheets in hard copy mode had been stopped and the inspection data are now being fed directly into the check sheets in electronic mode. This data for each loco in 100% soft copy is compiled to prepare Loco Inspection Certificates and the same are usually mailed to the nominated user Rly loco shed with savings in time and travel cost.
- 3.10.3.4. Inspection of Imported Items like 608 sets of Roller Bearing, 255 sets of Lock Nuts F.S., 934 Nos. of Capacitor Bank, 373 Nos. of PVT, 325 Nos. of Surge Arrestor, 560 sets of Auxiliary Fuse, 1230.80 Kg of Resin SI-32, 30200.00Kg of Silicon impregnating Resin-H62C and 350.00

Kg of Auxiliary Materials had been done during the last financial period based on manufacturer's WTC and GC.

- 3.10.3.5. Customer feedback rating as per IRIS requirement through newly introduced Google form is collected from different user loco sheds for CLW built locomotives.
- 3.10.3.6 Super checking on CMM for trade supplied 36 sets of bearing components of Traction motor, 35 Nos. of Stator, 22 Nos. of Suspension Tubes, had been done along with 100% of similar concentricity checking of 894 Nos. of inhouse Stator had been done to ensure accuracy of those items.
- 3.10.3.7. Repeated inspection bookings had been ensured reliability improvements in each group of shops as below:

#### **Shell Shops**

- Lifting of side wall with polyester sling had been introduced for better protection of rain gutters that leads to minimize the deformities of rain gutters.
- Work Instruction of CBC revised to maintain the distance of CBC from Head Stock.
- Thickness of Compressor Leg as per revised drawing has been ensured by enhancing regular inspection of the item.
- Cab side sill unevenness and OCU Level is maintained in most of the shells at Underframe manufacturing stage.
- Roof channel Height (1976mm) maintenance problem of shells had been minimized.
- Roof hatch Retainer is now fitted in most of the shells at ELF shops and the same are cross checked by ELA shops at their stage of work.
- BP & FP Protection cover fitment as per RDSO modification had been ensured.
- Welding quality had been improved by repetitive inspection booking.
- NCs of cambering has been reduced by close monitoring of inspection wings.

#### **Bogie Shops**

- The issue of temperature rise of traction motors and axle box as well as the vibration of traction motor had been reduced a lot in the year 2023-24 in comparison to earlier year 2022-23, by means regular close monitoring of inspection activities in the area.
- Problem related to Frictional Arm fouling with Brake Lever, Brake Shoe overriding on wheel, J-Clamp fouling with bottom slack adjuster, had been reduced.
- Oversized dimension reported for 'D' Shackle gap is now minimized in fabricated bogie to accommodate the lock nut.
- Centering of Hole Position is maintained in AXLE GUIDE ("H" Block) by enhancing inspection of the item.
- Motor support bracket distance of hole circumference to side wall is improved by inspection at every stage.
- Bogie stopper fouling with brake hanger lever in now improved and brake shoe key oxy cut to proper size.
- Previous safety rope bracket welding defects had been minimized by introducing MIG welding technique in place of Arc welding technique.

### **TM Shops**

- A part quantity of trade supplied 11 associated items of traction motor are being measured in CMM Machine which ensures the dimensional accuracy of Labyrinth as per standard size.
- End plate shifting with laminated stamping at both side DE and NDE side of stage assembly has been improved by enhancing stage inspection.
- Half ring welding defects at NDE side of Rotor Core Assembly had been rectified and close monitoring results to stop the re-occurrence of the same.
- Fitment of deficient grease nipple, dowel pin, below plate base matching, bearing cap bolt had been restricted by close monitoring of inspection in the area.

### **Wheel & HMS Shop**

- The Critical dimensions of Stator are being measured in CMM Machine that ensured the concentricity of Stator as per standard value.
- Proper position of holes in striker casting is ensured by using template.
- Cleaning of Bull gear check had been introduced to minimize dirt in gear oil & thus maintaining it's density.
- Desired surface roughness (as per drawing) of axle is achieved by enhanced inspection in this area.
- Improvement in accuracy of Stator and MSU achieved by introducing CMM for these manufacturing and inspection works.
- Errors in maintaining right angle in upper part of Head stock had been minimized by strict inspection in this area.

### **Loco Assembly Shops 19/16**

- Uniform laying of TM Sensor Cables through perforated sheet in sidewalls had been ensure by regular inspection of the area.
- Securing of cables by wrapping neoprene sleeves around them in areas of fouling on sharp edges had been ensured by regular inspection of the same.
- Proper and firm placement of edge protecting rubber grommet in centre sill cut outs were ensured by introducing check points in the inspection stage.
- Red markings as indication of tightness checked for all cable terminals and equipment fixing bolts had been ensured.
- MCB knob of all single pole sticking with edge of screen cover in HB panels had been overcome by modification of associated bolt length.
- For better esthetic and reduction of IC0 complaints from shed, Cables are ensured neatly dressed in all stage of connections.
- Proper and full insertion of Eit Sleeve inside coupler boots in all panels had been ensured.
- Fixation of name plates related to VCU reset modification issued by RDSO were being ensured.
- Fixing of green coloured door lock base in HB and FB Panels in place of colourless door lock base had been ensured.
- Water leakages minimized by improvement in fitment quality and proper welding.
- Light passing though roof joints had been improved by ensuring proper alignment of the joining parts.
- Gap been Center pillar cover bottom and Driver desk had been improved.
- Pop up rivet in driver desk corner makeup piece had been introduced.
- Application of adhesive in cab floor mat quality is improved.
- Unwanted holes in machine room floor had been blocked and minimized by repetitive booking in this area.

- Fouling with ballast weight & reservoir-3 had been improved.
- Ballast weight support oxy cut quality had been improved.
- Fouling of MR-3 Copper pipe with corner checker plate had been minimized.
- Deficiency of Bolt in machine room blower lobster duct & transition duct joint had been stopped.
- ULV Isolating cock RDSO modification 412 had been implemented in all locos.
- Torque standard had been maintained for side buffers, dampers, traction bar and foot step fitment by regular tight inspection.
- Implementation of RDSO modifications 475, 480, 490 in SB/1 & 2 Panels had been ensured
- Infringement of cable looms from BUR-1 to HB-1 & from BUR-2 to HB-2 against sharp edge of SB- 1 & SB-2 mounting bases respectively had been minimized.

### **Steel Foundry**

- Less material problem of front side rib had been improved in Striker Casting.
- Depth height of lifting hook had been maintained for Ballast Block.

### **3.10.3.8 Future Plan:**

A suitable application software is required to be developed (from trade) for feeding inspection data and equipment particular to prepare soft copy of Loco Inspection Certificate and sharing the same to user Railway Sheds (customer).

### **3.10.4 Status of ISO certification in CLW/Chittaranjan pertaining to ISO-Cell (FY 2023-24):**

SN	Certification	Date of Expiry	Applicable area	Status
1	ISO-9001:2015 (Quality Management System)	11/02/2024	CLW Workshop and Steel foundry.	Under tendering process
2	ISO-14001:2015 (Environment Management System)	11/02/2024	CLW Workshop, Steel foundry & Township.	
3	ISO-45001:2018 (Occupational Health & Safety Management System)	11/02/2024	CLW Workshop and Steel foundry.	
4	ISO-3834:2005 (Fusion Welding for Metallic Material)	02/02/2024	ELF Group of Shops.	
5	5S -Workplace Management System	09/02/2024	TM Group of Shops.	
6	IRIS (ISO TS/22163) International Railway Industry Standard	09.12.2024	CLW Workshop, Steel Foundry, stores, purchase and inspection cells	Proposal initiated for next certification cycle.

### **3.11 Liaison and Service Wing :**

The Liaison and Service (L&S) Wing of CLW is to perform the task of meeting the requirements of Capital spares allotted by Railway Board against bulk RSP & Railways' own needs of Spares against Indent/PO/Requisition for maintenance of locomotive at Electric Loco Sheds and POH/Repair shop over Indian Railways. Broadly, Liaison and Service Wing perform the following functions:-

- Consolidating the demands in the form of RSP from Railway Board & Requisitions/Indents/PO from Railways for purchased, shop manufactured items.
- Co-ordination with Stores department for the procurement of such spares and to issue work orders for the shop manufactured item.
- Supplying spares to the Railways through Stores / Shops as per demand and availability.
- Co-ordination with Railway Board for timely provision of fund for RSP items.
- To maintain accountal of such supplies.

### 3.11.1 Spares to Railways:

In the year 2023-24, spares worth Rs. 45900.38 Lakhs (as on 31.03.2024) were supplied to Zonal Railways. The breakup of the same may be seen at Annexure 3.4:

### 3.12 Power Supply:

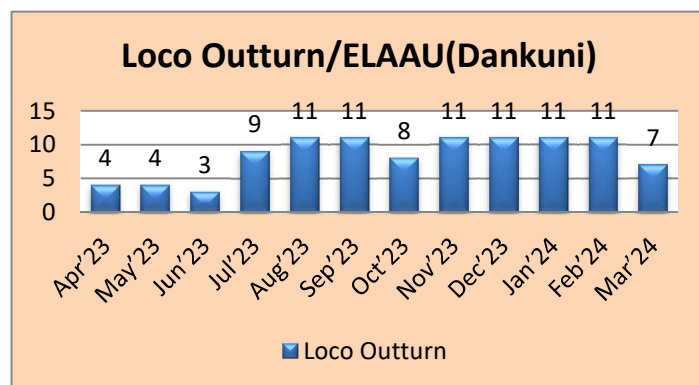
#### 3.12.1 Details of electrical energy purchase, generation and consumption. from April 2023 to March 2024:

	Energy Purchased/Generated	Expenditure incurred
Purchase from DVC	2,95,89,045 kWh.	Rs. 26,46,98,729
Generated by DG in CLW	23,131 kWh.	-----
Generated by 146 KW Solar Plant (CLW)	1,13,749 kWh	-----
Generated by 1 MW Solar Plant	13,42,054 kWh	Rs. 59,29,106
Generated by 4.86 MW Solar Plant	55,05,907 kWh	Rs. 2,47,21,523
Total (DVC + Generator + Solar)	3,65,73,886 kWh.	Rs. 29,53,49,358

### 3.13 ELAAU Dankuni:

Electric Loco Production Figure for the financial year 2023-24 for Electric Loco Assembly and Ancillary Unit of CLW/Dankuni are as under:

SN	Month	Loco Out turn
1	Apr'23	04
2	May'23	04
3	Jun'23	03
4	Jul'23	09
5	Aug'23	11
6	Sep'23	11
7	Oct'23	08
8	Nov'23	11
9	Dec'23	11
10	Jan'24	11
11	Feb'24	11
12	Mar'24	07
	<b>Total</b>	<b>101</b>



**Annexure – 3.1**

The Production programme finalized by Railway Board and the actual production achieved by CLW from 2014-15 to 2023-24 is as under:

YEAR		WAP -4 (RAJ)	WAG-7 (HH)	WAG-9 (TG)	WAG-9 HH	WAP-7 (TPP)	WAP-5 (TP)	Total
2014-15	Target	35	70	98		40	07	250
	Actual	35	70	98		40	07	250
2015-16	Target	30	35	140		58	17	280
	Actual	30	35	140		58	17	280
2016-17	Target	-	-	175		95	30	300
	Actual	-	-	190		79	23	292
2017-18	Target	-	-	210		110	32	350
	Actual	-	-	222		107	21	350
2018-19	Target	-	-	299	00	71	30	400
	Actual	-	-	298	01	73	30	402
2019-20	Target	-	-	359	01	45	25	430
	Actual	-	-	363	01	39	28	431
2020-21	Target	-	-	328	03	32	27	390
	Actual	-	-	336	01	33	20	390
2021-22	Target	-	-	449	05	13	18	485
	Actual	-	-	450	05	13	18	486
2022-23	Target	-	-	490	42	00	08	540
	Actual	-	-	422	06	00	08	436
2023-24	Target	-	-	534	40	00	06	580
	Actual	-	-	540	36	00	04	580

## Annexure – 3.2

## YEAR BY YEAR OUT TURN OF ELECTRIC LOCOMOTIVES FROM CLW

Year	DC WCM-5	DC WCG-2	ACMT WAG-1 WAG-4	ACMT WAM-4	ACMT (WK) WAM4B	WAG5 A	ACMT WAP 1,3,4	ACMT WCAM 4	WAG 7	DC WCM6 WCG3	WAG9 ,9H	WAG-9HH	WAP-7	WAP-5	Grand Total
1961-62	5														5
1962-63	14														14
1963-64	2		2												4
1964-65			27												27
1965-66			32												32
1966-67			57												57
1967-68			50												50
1968-69			28												28
1969-70			31												31
1970-71		3	41	6											50
1971-72		6		40											46
1972-73		14		41											55
1973-74		14		36											50
1974-75		13		32				1							46
1975-76		4		46				4							54
1976-77		3		28				13							44
1977-78				41				18							59
1978-79				40	5			11							56
1979-80				43	2			6							51
1980-81				54	11		4								69
1981-82				33	17										50
1982-83				51	2										53
1983-84				9	17	21									47
1984-85						49	1								50
1985-86						54									54
1986-87						70	1								71
1987-88						65	1								66
1988-89						98	2								100
1989-90						100	5								105
1990-91						102	8								110
1991-92						104	10		1						115
1992-93						108	12		5						125
1993-94						105	15		20						140
1994-95						105	15		30						150
1995-96						61	14		59	1					135
1996-97						25	18		111	1					155
1997-98							28		137						165
1998-99							45		112		08				165
1999-00							60		50		08		01	01	120
2000-01							50		62		05		01	02	120
2001-02							34		40		06		02		82
2002-03							28		27		07		06	01	69
2003-04							32		36		09		09		86
2004-05							32		36		11		09	02	90
2005-06							40		60		24		04	01	129



2006-07							37		77		35		01		150
2007-08							47		98		49		03	03	200
2008-09							51		115		31		20	03	220
2009-10							40		120		39		18	03	220
2010-11							40		120		40		18	12	230
2011-12							44		126		45		19	12	246
2012-13							37		123		57		40	13	270
2013-14							27		100		93		31	13	264
2014-15							35		70		98		40	7	250
2015-16							30		35		140		58	17	280
2016-17											190		79	23	292
2017-18											222		107	21	350
2018-19											298	1	73	30	402
2019-20											363	1	39	28	431
2020-21											336	1	33	20	390
2021-22											450	5	13	18	486
<b>2022-23</b>											<b>422</b>	<b>6</b>	<b>0</b>	<b>8</b>	<b>436</b>
<b>2023-24</b>											<b>540</b>	<b>36</b>	<b>0</b>	<b>4</b>	<b>580</b>
<b>TOTAL</b>	<b>21</b>	<b>57</b>	<b>268</b>	<b>500</b>	<b>54</b>	<b>1067</b>	<b>843</b>	<b>53</b>	<b>1770</b>	<b>02</b>	<b>3526</b>	<b>50</b>	<b>624</b>	<b>242</b>	<b>9077</b>

**Summary as on 31.03.2024**

Steam Locomotives	2351	
Diesel Locomotives	842	<b>Total: 12270</b>
Electric Locomotives	9077	

## Annexure 3.3

## ANNUAL PRODUCTION OF TRACTION MOTORS AT CLW

Year	MG-1580	TAO-659	HS15250A	6FRA6068	6FXA7059	TOTAL
1969-70	92	0	0	0	0	92
1970-71	92	0	0	0	0	92
1971-72	18	129	0	0	0	147
1972-73	0	75	0	0	0	75
1973-74	0	195	0	0	0	195
1974-75	0	255	0	0	0	255
1975-76	4	349	0	0	0	353
1976-77	12	233	0	0	0	245
1977-78	12	425	0	0	0	437
1978-79	8	425	0	0	0	433
1979-80	8	385	0	0	0	393
1980-81	10	432	0	0	0	442
1981-82	5	430	0	0	0	435
1982-83	8	420	0	0	0	428
1983-84	4	361	0	0	0	365
1984-85	1	305	0	0	0	306
1985-86	3	325	0	0	0	328
1986-87	12	440	0	0	0	452
1987-88	6	380	0	0	0	386
1988-89	8	350	779	0	0	437
1989-90	14	350	00	0	0	364
1990-91	9	450	21	0	0	480
1991-92	5	500	80	0	0	585
1992-93	6	500	95	0	0	601
1993-94	2	400	250	0	0	652
1994-95	0	220	422	0	0	642
1995-96	0	92	630	0	0	722
1996-97	0	36	701	0	0	737
1997-98	0	4	750	0	0	754
1998-99	0	0	755	6	0	761
1999-00	0	0	600	6	4	610
2000-01	0	0	528	30	0	558
2001-02	0	0	400	36	4	440
2002-03	0	0	320	76	14	410
2003-04	0	0	392	124	08	524
2004-05	0	0	417	128	04	549
2005-06	0	0	726	205	0	931
2006-07	0	0	761	276	04	1041
2007-08	0	0	896	321	8	1225
2008-09	0	0	881	316	5	1202
2009-10	0	0	815	390	24	1229
2010-11	0	0	1000	373	44	1417
2011-12	0	0	900	332	43	1275
2012-13	0	0	913	564	60	1537
2013-14	0	0	676	844	42	1562

2014-15	0	0	672	759	19	1450
2015-16	0	0	465	1019	30	1514
2016-17	0	0	0	1315	70	1385
2017-18	0	0	0	1688	53	1741
2018-19	0	0	0	1619	101	1720
2019-20	0	0	0	2234	96	2330
2020-21	0	0	0	1615	55	1670
2021-22	0	0	0	1978	29	2007
2022-23	0	0	0	2201	0	2201
2023-24	0	0	0	1956	24	1980
Total	339	8466	15145	20411	741	45102

**CLW/CHITTARANJAN**  
**SUPPLY OF SPARES TO ZONAL RAILWAYS AGAINST RLY BOARD'S RSP & REQUISITIONS OF ZONAL RAILWAYS UPTO MAR'2024**

(All Costs are in Rs. Lakh)

Sl.	Item description	CR		ECoR		ECR		ER		NCR		NR		SCR		SECR		SER		SR		WCR		NER		NFR		NWR		SWR		WR		Other ZR	Total qty.	Total cost of																							
		RSP	REQ	RSP	REQ	RSP	REQ	RSP	REQ	RSP	REQ	RSP	REQ	RSP	REQ	RSP	REQ	RSP	REQ	RSP	REQ	RSP	REQ	RSP	REQ	RSP	REQ	RSP	REQ	RSP	REQ																												
1	TM for G-9/P-7																																	14	416.49																								
2	TM for P-5																																	4	94.02																								
3	Stator of TM for G-9																																																										
4	Rotor of TM for G-9																																																										
5	Transformer of G-9/P-7																																	2	244.54																								
6	Transformer of P-5(6531 KVA)																																	19	2046.26																								
7	Composite Converter																																	2	521.56																								
8	Auxiliary Converter	9		4		4		6		3		7		4		2		7		3		4							1		1		55	2088.12																									
9	Traction Converter					1				2		2				1		1																7	1070.86																								
10	Propulsion Equipment					5		1	1			18		3		6				2													10	46	9419.02																								
11	E-70 Brake System			2	1			1				2	3		1	1	1		9	1	2	2		1		1						4		32	1293.74																								
12	Vehicle Control Unit	5		12				16		16		35		17		10		9		11		20		2									157	3843.36																									
13	Driver's Display Unit																																																										
14	Bogie Frame WAP-5																																																										
15	Bogie Frame WAP-7																																																										
16	Bogie Frame WAG-9																																																										
17	Brake Rigging WAP-5													6																					6	36.97																							
18	Brake Rigging WAP-7					2				6										2														20	30	178.88																							
19	Brake Rigging WAG-9			2				1				3																							6	29.66																							
20	Wheel & Axle Assly. WAP-5																																																										
21	Wheel & Axle Assly.WAP-7																																																										
22	Wheel & Axle Assly. WAG-9					14		6																											20	304.34																							
23	Gear Case Assly. WAP5																																																										
24	Access Tool / Diag System																																																										
25	High Reach Pantograph	77		20		257		14		357		369		70		14		4		31		192		48		12		87		12		138		1702	11104.32																								
26	High Speed Panto AM92																																																										
27	Remote Monitoring	31				12		8		8		14		3		3		14				19												8	120	454.8																							
28	DPWCS																																																										
29	2x500 Kva Hotel load Converter			4				2						3																					9	990.39																							
30	Oil Free Compressor																																																										
31	VCB																																																										
32	Oil Cooler Radiator			3				6		6				5		1		6		2														2	31	164.54																							
33	Main Compressor																																																										
34	Primary Volage Transformer	4	16			3	6	20		14			4	4	3			10	6	3	9	3												385	491	1918.49																							
35	HB1 & HB2 PANEL																																			1	12.59																						
36	SB1 & SB2 PANEL																																			1	7.95																						
37	Pivot Housing																																																										
38	30 KW Oil Cooling Blower	10		5		12	3	10	2	7	2	8	7	1									8						2		2	1		2	82	213.38																							
Cost of items from row 1-38																																																											36454.28
Cost of Misc. items in Rs. Lakh		1374.50		249.32		361.26		1002.86		255.20		509.68		589.33		453.89		994.70		340.49		320.04		20.69		109.82		103.30		77.51		281.22		2402.29		9446.10																							
Total cost in Rs. Lakh		2575.15		1655.74		3650.13		2571.30		3461.29		8785.02		2661.04		2362.73		2270.20		1572.92		2459.68		425.85		291.79		694.62		297.66		1575.76		8589.50		<b>45900.38</b>																							

## CHAPTER-IV MECHANICAL ENGINEERING

### 4.1 Steel Foundry

#### 4.1.1 Overview

**Location of the Factory:**     **P.O. & P.S.:**     **Chittaranjan**  
**Dist:**                             **Paschim Bardhaman, PIN - 713331**

The factory is located at Chittaranjan, Dist: Paschim Bardhaman, West Bengal, approx: 240 km. from Kolkata. The location is well connected by road and rail from Howrah Station.

Steel Foundry, as a part of Chittaranjan Locomotive Works, was set up for supplying Steel casting products for locomotives. It has two Electric Arc furnaces of 12 Ton & 10 Ton capacity. Steel Foundry follows stringent quality processes, duly certified with

<b>ISO</b>	: ISO 9001 :: 2015, ISO 14001 :: 2015, ISO 45001 :: 2018, ISO/TS 22163:2017 certified
<b>Total Area of the Plant:</b>	45 Acres (182108.70 sq.m)
<b>Covered Area</b>	: 12.4 Acres (50181.064 sq.m)
<b>Product</b>	: Steel Casting for Rolling Stocks.

#### 4.1.2. Important Milestones:

- **ISO-9002 Certificate:** In August 1996 Steel Foundry was awarded with the ISO-9002 Certificate for its Quality Standard. In the year 2000 these certification was called off and replaced by ISO 9001: 2000.  
Accordingly, Steel Foundry got ISO 9001: 2008 Certification in October 2009 and it is continuously followed since then. Now it has been awarded with ISO 9001:: 2015 Certification on 12.02.2022, which is updated and current version is ISO-9001::2008. The Certification was valid upto 11.02.2024 with two survey to be done at the interval of one (01) year from the date of issue of this certification.
- **ISO-14001:2015 Certificate:** Steel Foundry was accredited with Environment Management System (EMS 14001:2004) certification in the year 2006 with the objective to regularly educate the staff, encouraging them to preserve and conserve the environment as well as to utilize all the existing natural resources in an eco-friendly manner. It was continuously followed since then. Now it has been awarded with ISO-14001:2015 Certification on 12.02.2022, which is updated and current version of ISO-14001::2015 Certification. This certification was valid up-to 11.02.2024 with two surveys to be done at the interval of one (01) year from the date of issue of this certification.
- **CLASS-A Certificate:** Steel Foundry/CLW has been certified as CLASS ‘A’ foundry by RDSO ON 9<sup>TH</sup> August 2012 vide RDSO vender No 419.
- **IRIS Certificate:** Steel Foundry has been certified with IRIS (ISO/TS 22163:2017) on March 2023 alongwith loco works by M/s DNV Business Assurance Zertifizierung GmbH. This certification is valid up-to 09.12.2024.

### 4.1.3. Product Range:

#### Steel Castings:

##### A) Grade of Steel-

Steel Foundry manufactures steel castings generally compliant with grades IS-1030 and AAR-201. To meet the requirements of different products, Steel Foundry had earlier been processing six different grades of metal.

##### B) Details of castings produced at Steel Foundry:

Grade	C%	Mn%	S% (Max)	P% (Max)	Si% (Max)	Cr %	Ni%	Mo%
Grade-I	0.23-0.25	0.80-1.20	0.035	0.040	0.60	Nil	Nil	Nil
Grade-II	0.18-0.23	0.70-0.90	0.04	0.04	0.5	Nil	Nil	Nil
Grade-B	0.32	0.90	0.030	0.030	0.60	Nil	Nil	Nil

##### C) Present grades of steel & castings products are as follows:

Grade	Products
Grade-I	IGBT Ballast Block
Grade-B	Modified Striker Casting (Loco)

### 4.1.4 Product Mix of Steel Foundry:

#### 4.1.4.1 Loco-items:

	<u>ITEMS</u> :	<u>WEIGHT</u>
•	IGBT Ballast Blocks for WAG9HC loco.	7.400 MT
•	Modified Striker Casting (Loco)	0.140 MT

### 4.1.5 Outturn Performance:

#### 4.1.5.1 Cast Outturn:

Description	Annual Target	Cum. Actual up to Mar-2024
Cast in MT	270.00 MT	2333.77 MT

#### 4.1.5.2 Month-wise Casting Outturn:

Month	Outturn	Month	Outturn	Month	Outturn
Apr'23	191.89 MT	Aug'23	191.47 MT	Dec'23	202.43 MT
May'23	199.71 MT	Sep'23	180.40 MT	Jan'24	181.66 MT
Jun'23	227.63 MT	Oct'23	170.08 MT	Feb'24	224.49 MT
July'23	210.22 MT	Nov'23	160.58 MT	Mar'24	193.21 MT
Total Outturn: 2333.77 MT					

**4.1.5.3 Supply Outturn:**

Description	Annual Target	Cum. Actual up to Mar-2024
Supply in MT	2720.00 MT	2750.09 MT

**4.1.5.4 Month-wise Supply Outturn:**

Month	Supply	Month	Supply	Month	Supply
Apr'23	212.10 MT	Aug'23	227.60 MT	Dec'23	235.00 MT
May'23	226.90 MT	Sep'23	210.28 MT	Jan'24	197.30 MT
Jun'23	226.90 MT	Oct'23	226.90 MT	Feb'24	248.40 MT
July'23	263.55 MT	Nov'23	226.90 MT	Mar'24	248.26 MT
Total Outturn: 2750.09 MT					

**4.1.6 Production and Supply of Important Items:**

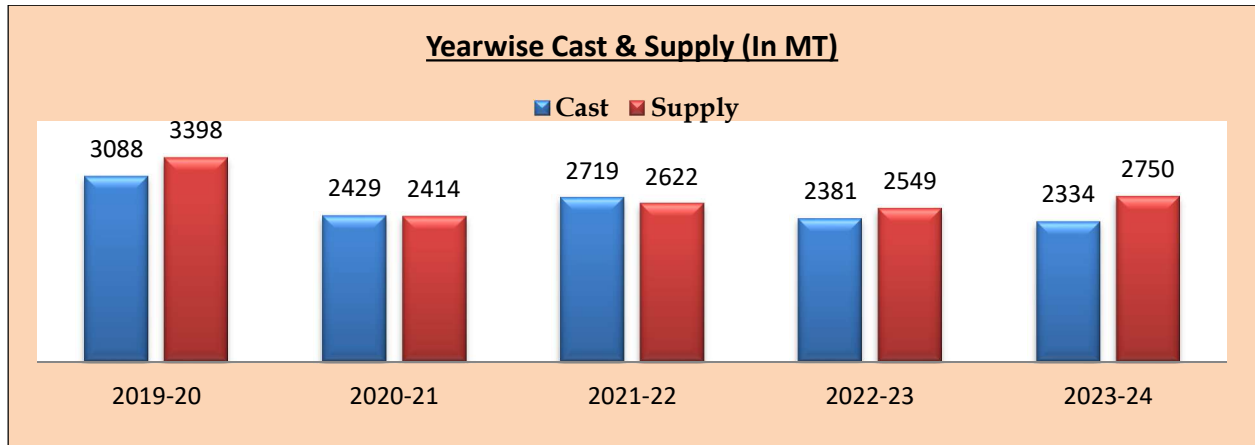
**4.1.6.1 Casting Target and Achievement in 2023-24:**

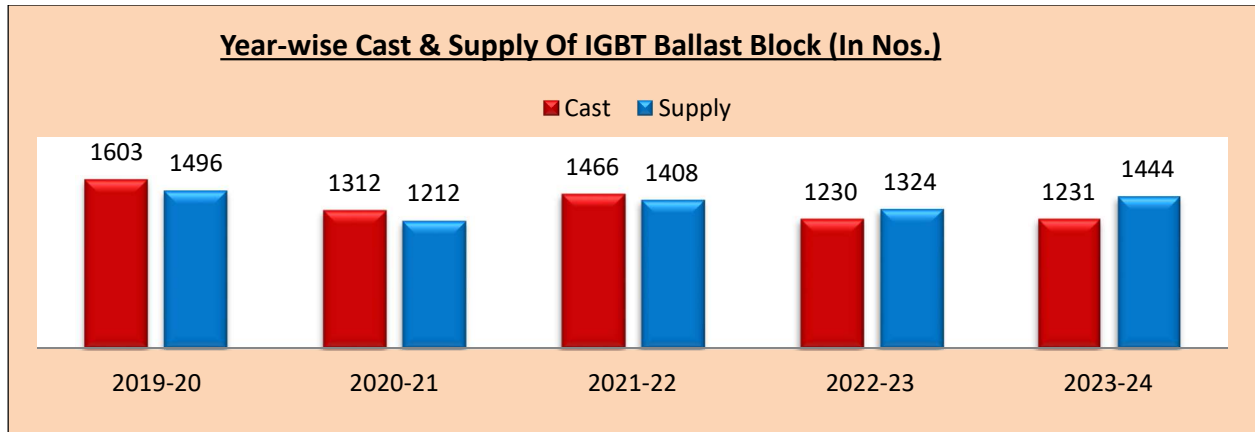
SN	Item	Target	Achievement
1	IGBT Ballast Block	1440 Nos.	1231 Nos.
2	Modified Striker Casting (Loco)	800 Nos.	800 Nos.

**4.1.6.2 Supply Target and Achievement in 2023-24:**

SN	Item	Target	Achievement
1	IGBT Ballast Block	1440 Nos,	1444 Nos.
2	Modified Striker Casting (Loco)	800 Sets	812 Sets

**4.1.7 Year-wise Cast and Supply for Last Five Years Are as Shown in Bar Chart Below:**





#### **4.1.8. Plant & Safety:**

##### **4.1.8.1 SAFETY ORGANISATION**

The personnel of Safety Department of Steel Foundry/CLW regularly monitor the safety related parameters i.e. use of Personal Protective Equipment, Proper use of Material handling equipment, unsafe working practices etc. to ensure the safety of staff of SF /CLW.

In addition, following safety drive was conducted in Steel Foundry w.e.f. 12.06.2023 to 11.07.2023 by the team consisting of Dy.CME/SF, AWM/SF, SSE/ERS/SF and AC&M/SF to ensure the safety of the staff of SF CLW.

During safety drives following items were checked.

1. Use of safety harness belt for working at height.
2. Use of safety net for prevention of fall from work at height.
3. Provision of platform with suitable railing guard for maintenance of overhead E.O.T. crane along with extension of existing platform.
4. To minimize the gap between the end carriage and cross trolley of E.O.T. Crane.
5. Awareness and training on safe operation of crane.
6. Fitment of mechanical foot brake in E.O.T. Crane for safe operation of crane.
7. An instruction was issued to all SSEs/SF to impart safety briefing to enhance the safety consciousness among the staff before engaging them in work. Concerned SSE/SF was instructed to impart safety briefing on the staff by the concerned shift supervisor in each shift before commencing work.
8. Standard operating process for work at height. (A Standard operation practice for work (i) at height & (ii) fragile roof.)
9. Physical standard for work at height (Vertigo Test).
10. Departmental safety committee meeting.

Safety Section also conducts Plant safety inspections, in shop Interactive Safety Awareness programme, investigations of accidents and recommend remedial measures. They also plan for motivating staff for act consciousness, use of safety equipment and compliance of statutory act and regulations in a regular manner.

As preventive measures every worker are provided with PPE like helmet, safety shoes, nose mask, ear plug/mugg, hand gloves, goggles for staff of concerned worker. More over exhaust fitted on the



roof, fire extinguishers are placed at various locations to put off the fire. Fire hydrants for supply of water during emergency installed at various locations within the factory premises. Water sprinklers are fitted on the top of LPG bullet to cool down the bullet during summer.

As per statutory obligation safety section/SF also monitors Occupational Health Hazards & periodical Medical checkup of staff of Steel Foundry.

It also maintains liaison with the office of the Dy. Chief Inspector of Factories, and Sr. Environment Engineer/West Bengal Pollution control board of Asansol and Kolkata. Compliances of the issues required by both Statutory bodies mentioned above are done from time to time.

#### 4.1.8.2 Achievements of Safety Department in Steel Foundry/CLW for the year 2023-24:

With a mission to minimize the Accident to “ZERO” level, Safety Section/SF has launched a programme “In Shop Interactive Safety Awareness Programme” in 2019 with an aim to motivate impart knowledge in order to minimize the chance of accident and relating necessary action to prevent/mitigate the same in a systematic, long standing and continual manner. The result of the implementation of the above said programme has improved effectiveness of introduction of such programme in SF/CLW that can be seen by examining the following table appended below:

No. of non-reportable accident injury	2020-21	2021-22	2022-23	2023-24
	07	02	01	Nil

## 4.2 Manufacturing Shops:

Manufacturing group of shops consists of Heavy machine shop, Wheel shop, Light machine shop, Smithy & Forge shop, Heat Treatment shop and Tool Room. Millwright and Electrical Maintenance shops look after maintenance of all M&Ps of loco works, power supply and distribution inside loco works. M&P cell deals with planning and process for procurement & commissioning of machines sanctioned by Rly. Board & GM/CLW under M&P Plan Head-4100 & 4200. It also consists of TPT shop including Road and Industrial vehicle maintenance work and shunting work.

### 4.2.1 Details of manufacturing shops:

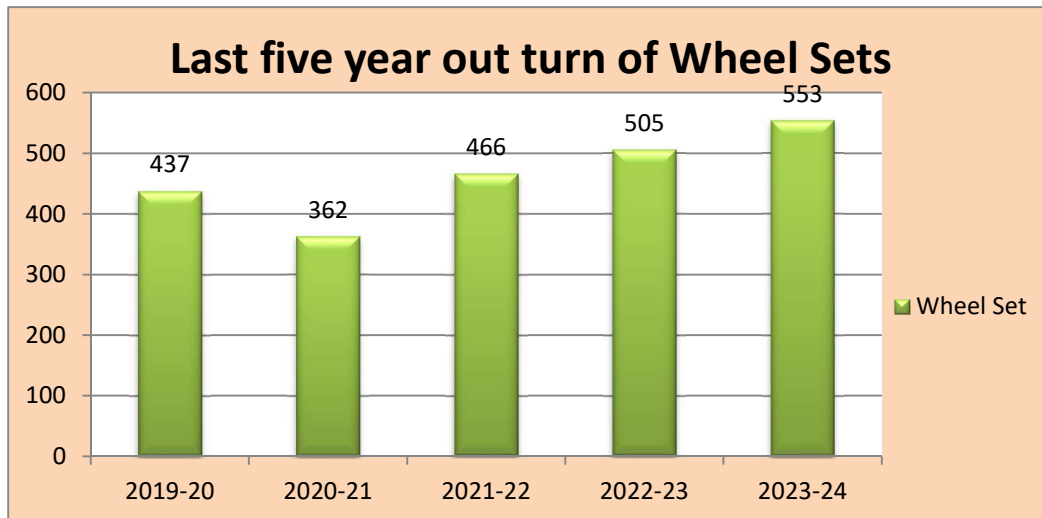
1. **Wheel Shop:** The Wheel shop manufactures Wheel Sets for loco production as well as spares to Zonal Railways. Presently wheel sets for WAG-9H, WAG-9HH and WAP-5 Locos are manufactured.
2. **Heavy Machine shop:** Heavy Machine Shop undertakes the
  - Manufacturing of 3 phase Stator (fabrication & machining, fitting)
  - Fabrication of Headstock & bolster.
  - Machining of Loco Striker Casting,
  - Machining of transom, motor support etc.
3. **Smithy & Forge shop:** SFS undertakes fabrication of Head stock of WAG-9H, WAG-9HH and WAP-5 loco and operating rod.
4. **Light Machine shop:** LMS manufactures various small components like roof mounting panto, tapped pad and brake rigging item etc. to meet the requirement of WAG 9H loco production.

5. **Tool Room:** Tool rooms carries out calibration of various gouges, fixtures, instruments etc. to meet the ISO requirement.
6. **Heat Treatment Shop:** Heat Treatment Shops undertakes heat treatment of 3 Phase Bogie Frame and other items e.g. Axle Holder, Motor Support, Striker Casting, Torque support manufactured in Mfg. Shop.

**Performance of Manufacturing Shop is furnished in the Table-‘A’**

**Table – ‘A’  
Production Performance of Mfg. shops:**

Sl no	Year	Wheel sets (L/S)	Stator (Nos.)	Bolster (L/S)	Head stock (L/S)	Striker Casting Machining (L/s)	Sand Box Assly (L/S)
1.	2019-20	437	878	48	46	NIL	NIL
2.	2020-21	362	669	40	30	NIL	NIL
3.	2021-22	466	386	36	38	NIL	NIL
4.	2022-23	505	971	45	48	305.5	85
5.	2023-24	553	902	60	50	384.5	20



#### 4.2.2 Achievement of Mfg Group of Shops During the Year 2023-24:

- Sculpture named “Together We Move the Nation” from rejected wheels and axle has been manufactured by HMS-08 and installed near Wheel Shop for beautification.
- 10L/S WAG-9 Dummy Bogies have been manufactured jointly by HMS-08 & SFS-03. These dummy bogies are presently used for transportation of shells for various stage work of Loco Assembly.
- A Torque Meter has been procured and installed in TR-52 shop for calibration of torque wrenches of capacity upto 2000 Nm. Nearly 99.5% of the torque wrenches are being calibrated in house by the Torque Meter.
- Approx. 4,34,978 MT scrap was disposed off from Mfg. Group of shops in the FY 2023-24.
- WA-09 shop manufactured 553 L/S Wheel Set in 2023-24 which is an all time record.

#### 4.3 Brief Regarding Plant Maintenance Organization(Loco Works):

**Plant Maintenance Organization:** CLW has more than 491 M&Ps including 120 Nos. EOT Cranes & Hoist in Loco Works. Breakdown as well as preventive maintenance of M&Ps including 51 critical machines are carried out by the Plant Maintenance Organization consisting of Millwright Shop (MTS-56), Electrical Repair Shop (Shop-59) and CNC Wing. Plant Maintenance Organization deals with repairing, reconditioning, retro-fitment of machineries and plant, maintenance of Heritage Locomotives & electrical maintenance of lighting inside shops. Installation of new small machineries and plants, condemnation & uprooting of old M&Ps are also carried out by the Maintenance Shops-56 & 59.

**TPT-57 Shop :** TPT-57 Shop deals with maintenance and operation of staff car, material handling equipments (FLT, PLT, Truck, Dumper, Tractor etc.) and also deals with shunting of Shell, Bogie and Locos.

##### 4.3.1 Special Work Done During 2023-24

- 1) One time repairing/renovation & system modification work has been done of the M/c. such as Cooper VTL M/c. No. 09/1796/01, Under WS-09.
- 2) Painting of 18 Nos. EOT Cranes, Statutory Inspection, Testing & certification of EOT Crane 125 Nos., Chain Slings, 297 Nos., Hoist- 18 Nos., Tools tackles 72 Nos. & Unified Pressure vessels 82 Nos. (External tested) Internal 20 Nos., Hydrostatic Tested 82 Nos.
- 3) One time repair of EOT Crane No. 21/E/09, 16/E/05.
- 4) Supply and fitment of spares in routine test Plant at Bay -9A TM shop.
- 5) CAMC of 22 Nos. EOT Cranes under Loco Works.
- 6) CAMC of 209 Nos. KEMPPI Make Welding Machine under shop.
- 7) Repair and overhauling of 17 Nos. VCB panel of sub-station A,B,C, new and H<sub>2</sub>.
- 8) Procurement of 150 Nos. DLDC Ceiling Fan for use in office at Loco works.
- 9) One rejected Cab has been renovated and installed near Gate No.-3 for memorable World record production of Locomotives at CLW.
- 10) “GLOBE IN HAND” monument manufactured and installed at Ranjan Cinema Hall chowk.
- 11) “Lion on Move-Make in India” Logo made from scrap material and installed near D.V. Girls School.
- 12) “Tower of progress” made from scrap material and installed beside VIP Road of loco Works.
- 13) “**LOCO MAN**” made from scrap material and installed near Children Park.

- 14) **Amrit Digital Gallery** installed at Loco Park.
- 15) **Sculpture of Eagle Bird** made from scrap material and installed near Gate No.-3.
- 16) **Installation of running model** (Train set consisting of WAG-9 with four Goods Wagon and Guard brake Van) at Loco Park.
- 17) 06 Nos. of M&Ps with major Break-down rectified and re-commissioned in-house within very short.
- 18) A special cleanliness drive has been initiated by the maintenance group of shop under their jurisdiction of shop floor at SSE/MTS-56, SSE/TPT-57 & SSE/ERS-59. They have done a token of work to collect plastic waste, discarded material, scrap material debris and other garbage from their work vicinity and compiled all the dirty material disposed off a particular place. Regular photographs before and after cleanliness is being sent to PCME through AWM/MPP in every month of last week.
- 19) Disposed of total scrap during the year 2023-2024 are Ferrous – 20835Kgs. and Non Ferrous – 11883 Kg.
- 20) TPT-57 disposed Scrap of valuing Rs.4,48,174.04 Lakhs during the year 2023-24 and fuel saved in official vehicle and MHEs is 1116 Ltrs.

#### 4.3.2 Uptime / Availability of Critical Machines :

Plant wing of CLW has been entrusted with the maintenance of all M&P items which are more than **491** Nos. of all the shops.

Out of the above M&Ps, 51 Nos. of M&Ps have been identified as critical machines. The breakdown of any of these critical machines directly affected the production of Locomotive. Hence, these critical machines are monitored very closely.

The availability percentage of various categories of machines in CLW during 2023-2024 as given below:

##### TARGET AND ACHIEVEMENT

Availability	Target	Achievement
Critical M&Ps (51 Nos.)	Up To 90%	95.74%
Non Critical M&Ps (320 Nos)	Up To 90%	98.46%
EOT Cranes ( 120 Nos.)	Up To 90%	99.44%

#### 4.3.3 Condemnation of M&Ps:

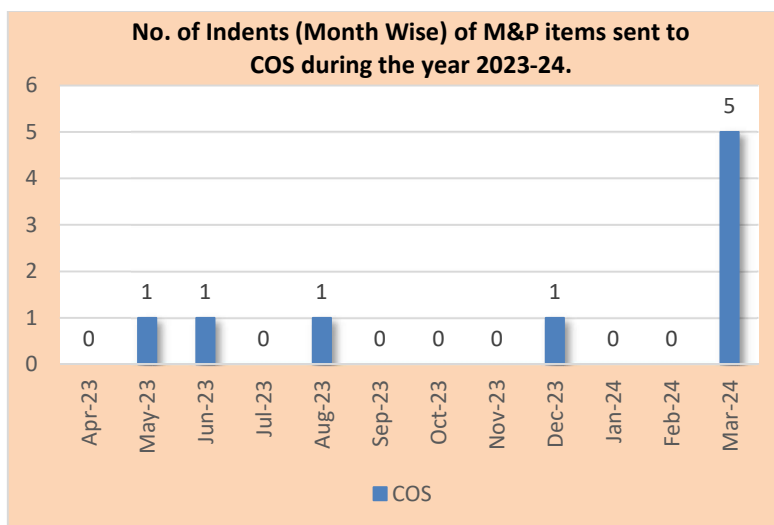
During the year 2023-24, 21 (M&Ps & Vehicles) nos. of machines have been condemned. (scrap approx wait-57.542 MT, scrap value approx. Rs. 23,59,273.25 Lakhs)

#### 4.4 Brief regarding M&P section:

##### 4.4.1 No. of Indents (Month Wise) of M&P items sent to COS during the year 2023-24.

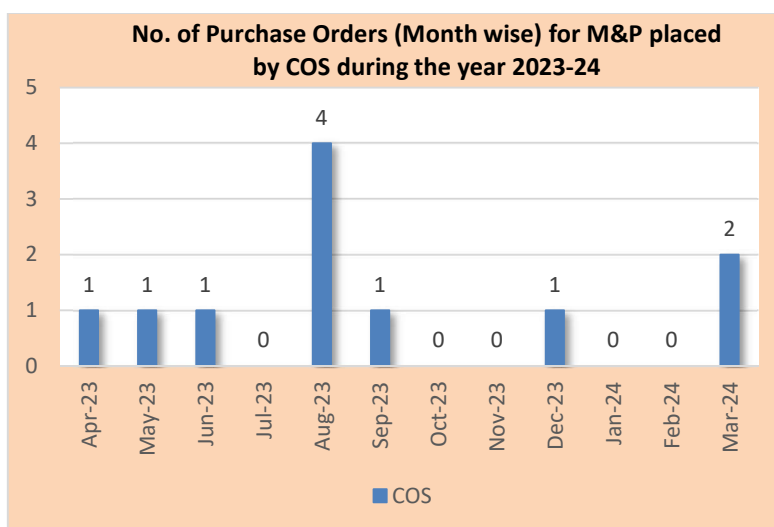
Graphical as well as tabular form:

Month	COS
April 2023	0
May 2023	1
June 2023	1
July 2023	0
August 2023	1
September 2023	0
October 2023	0
November 2023	0
December 2023	1
January 2024	0
February 2024	0
March 2024	5
Total	9



**4.4.2** No. of Purchase Orders (Month wise) for M&P placed by COS during the year 2023-24.  
Graphical as well as tabular form:

Month	COS
April 2023	1
May 2023	1
June 2023	1
July 2023	0
August 2023	4
September 2023	1
October 2023	0
November 2023	0
December 2023	1
January 2024	0
February 2024	0
March 2024	2
Total	11



**4.4.3** List of New M&Ps proposed and sanctioned in M&P Programme:

**A. M&P programme 2023-24:**

10 Nos. new M&P proposal submitted to Railway Board for sanction under M&P Programme 2024-25.

SN	Description	Consignee	Qty.	Allocation	Sanction Cost (Rs. in 000)
1	Motorised Bogie Load Testing	Dy CME/ELB	01	DRF	8,238
2	Synergic Pulse Welding Plant	Dy CME/ELF	20	DRF	16,098
3	Rotary Gelation Plant	Dy CEE/TMM	12	CAP	25,416
4	Expansion of Storage Capacity of CCTV Cameras	Dy CSTE	01	CAP	17,049
5	Truck, Capacity - 9T	Dy.CME/Plant	02	DRF	4,520

6	CNC Turning Centres	Dy CEE/TMM	01	CAP	69,922
7	Prison Van Police Vehicle	ASC/RPF	01	CAP	2,542
8	CNC Universal Grinding Machine	Dy.CEE/TMM	01	CAP	48,719
9	Wheel Press with Computer Based Measuring and Recording System, 500 T	Dy.CME/Mfg	01	CAP	25,183
10	Motorised Bogie Load Testing Machine, Capacity 40×2 Ton (Double Ram)	Dy.CME/ELAAU/DKAE	01	CAP	8,225
<b>Total</b>					<b>2,25,912</b>

#### B. GM's Out of Turn 2023-24:

Total 11 Nos. new M&Ps have been sanctioned against M&P Programme GM's Out of Turn Powers 2023-24:

SN	Description	Consignee	Qty.	Allocation	Sanction Cost (Rs. in 000)
1	Dynamic Balancing Machine	Dy. CEE/TMM	01	CAP	3,741
2	Hydraulic System for Pinion Mounting & Extraction	Dy. CEE/TMM	02	CAP	4,938
3	Handheld Bilirubinometer	PCMO/KGH	01	CAP	466
4	Synergic Pulse Welding Plant	Dy.CME/ELF	06	CAP	4,385
5	Guillotine Shearing Machine	Dy.CME/ELF	01	DRF	4,534
6	Royal Enfield Motorcycle	IG-cum-PCSC	03	DRF	419
7	Fully Automatic Bio Chemistry Analyzer with ISE	PCMO/KGH	01	DRF	4,151
8	Full HD Laparoscopic Set	PCMO/KGH	01	CAP	4,596
9	Ferrous Debris Monitor Instrument	Dy.CEE/TMM	01	CAP	1,094
10	VVVF Drive 3 phase AC Traction Motor Testing Plant for Light Load for testing upto full/rated speed	Dy.CME/ELB	01	CAP	2,954
11	VVVF Drive Panel for Traction Motor Test	Dy.CME/ELB	01	CAP	1,863
<b>Total</b>					<b>33,141</b>

The detailed break up of cost under CAP and DRF are given below:-

Allocation	Qty.	Sanction Cost ( in 000 ₹ )
CAP :	08 Nos.	24,037
DRF :	03 Nos.	3,104
Total :	11 Nos.	33,141

#### 4.4.4 Fund utilization during 2023-24:-

##### Plan Head - 4100

( fig. in 000 of ₹ )

Final Budget Grant 2023-24		Expenditure in 2023-24		% Utilisation w.r.t. Final Grant	
CAP:	₹ 3757	CAP:	₹ 3942	CAP:	104.92
DRF:	₹ 8787	DRF:	₹ 10446	DRF:	118.88
RRSK:	₹ 14688	RRSK:	₹ 14688	RRSK:	100
Total	₹ 27232	Total	₹ 29076	Total	106.77

#### 4.4.5. Details of M&Ps received in 2023-24 (Plan Head -41):

SN	Yr. of sanc.	Description., Qty., Allocation, Cost	A.T. / PO Ref.	Supplier's Name.	Consign.& Location	Date of Receipt
1	OT 22-23	ROYAL ENFIELD Motor Cycle of BS-VI with Single cylinder 4 stroke air cooled Brand: ROYAL ENFIELD, Qty-06 nos., 7.91 Lakh, MT/2314	P.O.No.: 84235164200641 dated 16-MAY-23 GeM contract No. GEMC-51168777858659 3 dated 05/05/23	EICHER MOTORS LIMITED, New Delhi, EICHER MOTORS LIMITED, A-3, District Centre 3rd Floor, Select Citywalk, Saket,, NewDelhi-110 017, Delhi	ASC/RPF, CLW	16.06.23
2	OT 22-23	Induction Heater 30 KVA (Micro Processor Controlled), Qty.- 02 nos., 11.32 lakh, MT/2311	P.O.No.: 25225111100120 dated 27-FEB-23	SKY LIGHT-PASCHIM BARDHAMANHINDUSTAN CABLES KALYANGRAM 5, SALANPUR, PASCHIM BARDHAMAN, West Bengal, India, 713335	Dy. CME/ Mfg. WS-09	28.06.23
3	OT 22-23	Portable Hydraulic Press-100T,Qty-01 no, CAP, 5.25 lakh, MT/2312	P.O No.- 25225112100090 dated 14.02.23	M/s Unitech Instruments, Thane , 37 Sheetal Supreme Industrial Estate No.2, Near Dhuri 2, Sativali Road Vasai E,Thane-401210	Dy. CME/ Mfg. WS-09	05.07.23
4	OT 22-23	Torque Meter 2000NM, Qty-01 no, CAP, 5.99 lakh, MT/2310	P.O.No.: 25225113100518 dated 17.08.23	SKY LIGHT-PASCHIM BARDHAMANHINDUSTAN CABLES KALYANGRAM 5, SALANPUR, PASCHIM BARDHAMAN, West Bengal, India, 713335	Dy. CME/ Mfg. Tool-Room/ LMS	14.09.23
5	OT 22-23	Single Door, 300-360 lit. Refregerator (Blood Storing), 2.33 lakh, MT/2313	P.O No.- 84235158201237 dated 30.08.23 GeM contract No.- GEMC-51168776145519 0 dated 12.08.23	Rattan Sales Corporation, Plot No. 85,HSIDC,INDUSTRIAL ESTATE, BARHI, DISTT-SONIPAT, HARYANA-131001	PCMO/KG H KGH	21.09.23
6	OT 22-23	Induction Heater, Qty- 02 nos, DRF 10.74Lakh, MT/2307	P.O No- 25225106100326 dated 09.06.23	M/s VIVID METRAWATT Manish Industrial Estate No. 4 Navghar, Vasai east, Maharashtra, India, 401210	Dy. CEE/TMM Shop-21	04.11.23
7	OT 22-23	Distribution Transformer Qty-01 no, DRF 19.50Lakhs, MT/2315	P.O no. 25235023100520 Dated-19.8.23	SERVOKON SYSTEMS LIMITED, C-13 RADHU PLACE ROAD LAXAMI NAGAR DELHI-110092.	Dy. CME/SF Shop-64	19.12.23

#### 4.4.6 M&P's commissioned during 2023-24 (Plan Head – 41)

S N	Yr. of san.	Description, Qty., Allocation, Cost	Supplier & AT/PO No	Consign.	Date of receipt.	Date of Comm.
1	OT 20-21	Installation of IP based CCTV Video Surveillance system at various office	M/s Smartech Infra Solutions, No 9 270 9 <sup>th</sup> A main 3 <sup>rd</sup> Block, Jayanagar, Bangalore-560011	Dy. CSTE	26.3.21, 29.3.21, 10.4.21,	05.04.23

		location in CLW/CRJ, 329 nos. 93.58 lakh, MT/2283, 2284, 2285	P.O No.- 84215142200692 dated 07.05.2021		17.4.21, 10.5.21, 15.5.21, 17.6.21 &19.6.21	
2	OT 22-23	Recorders & Medicare Systems TMT Machine 2175 millimeter 850 millimeter,, WMS, 01no. 03.45 lakh, MT/2309	RECORDERS & MEDICARE SYSTEMS PRIVATE LIMITED, PLOT NO.11, IT PARK, SECTOR 22, PANCHKULA, HARYANA - 134109, P.O.No.: 84235024200564 dated 26-APR-23 GeM contract No. GEMC-511687751419951 dated 13/02/23	PCMO/KGH	06.03.23	03.04.23
3	OT 22-23	ROYAL ENFIELD Motor Cycle of BS-VI with Single cylinder 4 stroke air cooled Brand: ROYAL ENFIELD, 06nos., 7.91 lakh, MT/2314	EICHER MOTORS LIMITED, A-3, District Centre 3rd Floor, Select Citywalk, Saket,, New Delhi- 110 017, P.O.No.: 84235164200641 dated 16-MAY-23 GeM contract No. GEMC-511687778586593 dated 05/05/23	ASC/RPF	16.06.23	19.06.23
4	M&P 19-20	EOT Crane, 50T, 136 lakh, MT/2257	M/S. Alpha Services, Plot No- SPA 531, RIICO Industrial Area, Phase-I, Bhiwadi-301019, Distt:- Alwar Rajasthan-301019. COFMOW/IR/S/P-1/OP-521010 Dated:- 22.06.22	Dy. CME/ ELF	20.03.23	04.07.23
5	OT 22-23	Induction Heater 30 KVA (Micro Processor Controlled), 02nos., 11.32 lakh, MT/2311	SKY LIGHT HINDUSTAN CABLES KALYANGRAM 5,SALANPUR, PASCHIM BARDHAMAN, West Bengal, India, 713335 P.O.No.: 25225111100120 dated 27-FEB-23	Dy. CME/ Mfg.	28.06.23	18.07.23
6	OT 22-23	Portable Hydraulic Press, 100T, CAP 01no., 6.2 Lakh, MT/2312	M/s Unitech Instruments - Thane , 37 Sheetal Supreme Industrial Estate No.2, Near Dhuri 2, Sativali Road Vasai E,Thane-401210 P. O. No. 25225112100090 dated14.02.23	Dy. CME/ Mfg.	05.07.23	13.09.23
7	OT 22-23	Torque Meter 2000NM, Qty. 01no., 5.99 lakh, MT/2310	SKY LIGHT HINDUSTAN CABLES KALYANGRAM 5,SALANPUR, PASCHIM BARDHAMAN, West Bengal, India, 713335 Contact Person: ABHIJIT DEY P.O.No.: 25225113100518 dated 17.08.23	Dy. CME/ Mfg.	14.09.23	29.09.23
8	M&P 21-22	Computer Controlled, Simultaneous, Direct Reading, Vacuum Optical Emission Spectrometer, DRF, 01no.71.15 lakh, MT/2292	M/S Metal Power Analytical Pvt.Ltd.87,Metal Power House,P lot No. 14Marol Co-operative Industrial Estate,Andheri East, Mumbai (Sub), COFMOW/IR/S/P-1/OP-609672 Dated:- 07.02.23	Dy.CME/ SF/CLW	17.03.23	08.11.23
9	OT 22-23	SPENCERS—RATTAN SALES CORPORTATION single door 300-360 Litres Refrigerator Qty. 01, WMS, 2.33 Lakh, MT/2313	Rattan Sales Corporation, Plot No. 85,HSIDC,INDUSTRIAL ESTATE, BARHI, DISTT- SONIPAT, HARYANA- 131001 PO No. 84235158201237 Dated-30.08.23 GeM contract No.- GEMC-511687761455190 dated 12.08.23	PCMO/KGH KGH	21.09.23	30.11.23



10	OT 22 – 23	Induction Heater, DRF, Qty. 02nos,10.74 lakh, MT/2307	M/s VIVID METRAWATT Manish Industrial Estate No. 4 Navghar, Vasai east, Maharashtra, India, 401210 P.O No- 25225106100326 dated 09.06.23	Dy. CEE/ TMM	04.11.23	28.12.23
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## 4.7 Chemical & Metallurgical Laboratory

Chemical & Metallurgical Laboratory consists of three units i.e. Main Laboratory/Loco, NDT Laboratory /Loco and Steel Foundry Laboratory under control of CMT and assisted by 02 Nos. ACMT are responsible for quality assurance of Electric Loco components and miscellaneous mechanical items.

Main Laboratory/Loco conducting metallurgical, chemical and destructive test of casting, forging & fabricated components as well as Physico-Chemical test of non-metals, rubber items, paints, oil & lubricants.

NDT Laboratory /Loco conducting Non-destructive test of casting, forging & fabricated Electric Loco components and miscellaneous mechanical items.

Steel Foundry Laboratory ensures quality control of inputs and finished products of Steel Foundry including stage wise process control. The Chemical & Metallurgical wing of Steel Foundry ensures quality control of castings like Striker Casting, IGBT Block etc. It also ensures quality control of different raw material of Steel Foundry like Ferro – manganese, Silico – Manganese, Ferro-silicon, Ferro - molybdenum, iron ore, silica sand, core binders, bentonite power etc. It also ensures quality control of furnace consumables like basic lining bricks, high alumina bricks, ladle bricks etc.

Main activities of Chemical & Metallurgical Organization is as under:-

- Chemical analysis of Ferrous & non-ferrous alloys using spectrometer.
- Testing of Loco items as per Loco production target to meet the requirement.
- Control Test of Water Purification Plant.
- Technical investigations including failure analysis.
- Calibration of Laboratory Inspection Measuring and Test Equipments (IMTE) from outside Agency.

## 4.8 . Performance W.E.F. 01.04.2023 to 31.3.2024

### 4.8.1 Main Laboratory:

Month		Type of Test											Total
		Chem.	Phy.	Bend Test	Macro Str.	Micro Str.	Grain Flow	Impact	Hardness	Paint	Oil & Lubricant	Rubber & others	
April '23	No. of Samples	168	192	29	2	65	0	35	2	0	2	37	532
	No. of Tests	1230	477	29	2	139	0	105	6	0	4	83	2075
	No. of Rej.	1	3	0	0	1	0	0	0	0	0	1	6
	% of Rej.	0.59	1.56	0	0	1.53	0	0	0	0	0	2.7	1.13
May '23	No. of Samples	435	404	146	9	65	0	111	9	87	3	73	1342
	No. of Tests	2799	1086	146	9	101	0	333	25	863	9	150	5521
	No. of Rej.	6	4	0	0	3	0	0	0	5	0	0	18
	% of Rej.	1.37	0.99	0	0	4.62	0	0	0	5.75	0	0	1.34

June '23	No. of Samples	156	539	76	4	107	0	51	1	44	13	46	1037
	No. of Tests	1076	896	76	4	212	0	153	3	600	24	84	3128
	No. of Rej.	3	1	0	0	0	0	0	0	0	8	0	12
	% of Rej.	1.9	0.19	0	0	0	0	0	0	0	61.54	0	1.16
July '23	No. of Samples	275	457	127	2	87	0	89	2	64	1	37	1141
	No. of Tests	1683	968	127	2	125	0	125	5	869	3	71	3978
	No. of Rej.	7	2	0	0	1	0	0	0	0	0	0	10
	% of Rej.	2.54	0.45	0	0	1.15	0	0	0	0	0	0	0.88
Aug '23	No. of Samples	163	261	71	1	57	0	52	4	27	2	36	674
	No. of Tests	1055	564	71	1	98	0	156	12	284	6	55	2302
	No. of Rej.	4	0	1	0	0	0	0	0	0	0	0	5
	% of Rej.	2.4	0	1.41	0	0	0	0	0	0	0	0	0.74
Sep '23	No. of Samples	188	233	777	2	62	0	70	1	33	2	36	704
	No. of Tests	1236	605	77	2	98	0	210	3	450	6	77	2764
	No. of Rej.	4	6	0	0	0	0	0	0	0	0	1	11
	% of Rej.	2.13	2.58	0	0	0	0	3.38	0	0	0	2.78	1.56
Oct '23	No. of Samples	76	156	40	3	84	0	31	5	44	1	25	465
	No. of Tests	471	354	40	3	136	0	93	15	600	3	45	1760
	No. of Rej.	2	0	0	0	3	0	0	0	0	0	0	5
	% of Rej.	2.63	0	0	0	3.57	0	0	0	0	0	0	1.05
Nov '23	No. of Samples	202	259	77	1	62	0	83	1	49	2	33	769
	No. of Tests	1334	657	77	1	106	0	249	3	328	6	69	2830
	No. of Rej.	7	0	0	0	0	0	0	0	11	0	0	18
	% of Rej.	3.47	0	0	0	0	0	0	0	22.45	0	0	2.34
Dec '23	No. of Samples	120	484	29	7	64	0	33	0	21	3	45	806
	No. of Tests	839	739	29	7	116	0	69	0	300	9	80	2188
	No. of Rej.	9	0	0	0	0	0	0	0	0	0	0	9
	% of Rej.	7.5	0	0	0	0	0	0	0	0	0	0	1.12
Jan '24	No. of Samples	105	222	35	2	47	0	20	1	10	4	34	480
	No. of Tests	677	438	35	2	51	0	50	3	150	6	80	1492
	No. of Rej.	6	2	0	0	0	0	0	0	0	0	1	9
	% of Rej.	5.71	0.9	0	0	0	0	0	0	0	0	2.94	1.875
Feb '24	No. of Samples	129	154	37	1	15	0	28	1	21	8	39	433
	No. of Tests	778	315	37	1	19	0	84	3	274	12	123	1646
	No. of Rej.	4	0	1	0	0	0	0	0	0	6	3	14
	% of Rej.	3.1	0	2.7	0	0	0	0	0	0	75	7.69	3.23
Mar '24	No. of Samples	78	135	14	0	60	0	12	0	0	1	27	327
	No. of Tests	493	289	14	0	96	0	36	0	0	3	63	994
	No. of Rej.	11	3	0	0	0	0	0	0	0	0	1	15
	% of Rej.	14.1	2.22	0	0	0	0	0	0	0	0	2.04	4.59
1st April'23 31st Dec'24	Total No. of Samples	2095	3496	758	34	775	0	615	27	400	42	468	8710
	Total No. of Tests	13671	7388	758	34	1297	0	1663	78	4718	91	980	30678
	Total No. of Rej.	64	21	2	0	8	0	0	0	16	14	7	132
	% of total Rej.	3.06	0.60	0.26	0	1.03	0	0	0	4	33.33	1.5	1.52

#### 4.8.2 N. D. T./ Lab./ Loco:

Month		Type of Test					Total
		UT	RT	M.P.T	D.P.T	Misc.	
April '23	No. of Samples	938	0	669	198	70	1875
	No. of Tests	2934	0	669	2254	210	6067
	No. of Rej.	0	0	0	0	0	0
	% of Rej.	0	0	0	0	0	0

May '23	No. of Samples	1148	10	710	227	86	2181
	No. of Tests	3392	10	710	2411	254	6777
	No. of Rej.	0	0	0	0	0	0
	% of Rej.	0	0	0	0	0	0
June '23	No. of Samples	1361	7	786	208	72	2434
	No. of Tests	4112	7	786	2353	216	7474
	No. of Rej.	0	0	0	0	0	0
	% of Rej.	0	0	0	0	0	0
July '23	No. of Samples	1210	7	731	213	70	2231
	No. of Tests	3716	7	731	2252	210	6916
	No. of Rej.	0	0	0	0	0	0
	% of Rej.	0	0	0	0	0	0
Aug '23	No. of Samples	839	0	723	231	80	1873
	No. of Tests	2774	0	723	2410	240	6147
	No. of Rej.	1	0	0	0	0	1
	% of Rej.	0.05	0	0	0	0	0.053
Sep '23	No. of Samples	1016	0	647	227	60	1950
	No. of Tests	3122	0	647	2504	180	6453
	No. of Rej.	1	0	0	0	0	1
	% of Rej.	0.1	0	0	0	0	0.051
Oct '23	No. of Samples	882	0	672	195	57	1806
	No. of Tests	2850	0	672	2034	171	5727
	No. of Rej.	0	0	0	0	0	0
	% of Rej.	0	0	0	0	0	0
Nov '23	No. of Samples	1272	0	775	239	88	2374
	No. of Tests	3824	0	775	2462	264	7325
	No. of Rej.	0	0	0	0	0	0
	% of Rej.	0	0	0	0	0	0
Dec '23	No. of Samples	927	0	666	280	70	1943
	No. of Tests	3064	0	666	2207	210	6147
	No. of Rej.	0	0	0	0	0	0
	% of Rej.	0	0	0	0	0	0
Jan '24	No. of Samples	1259	0	662	258	70	2249
	No. of Tests	3838	0	662	2586	210	7296
	No. of Rej.	2	0	0	0	0	2
	% of Rej.	0.16	0	0	0	0	0.089
Feb '24	No. of Samples	1014	0	481	215	60	1770
	No. of Tests	3146	0	481	1927	180	5734
	No. of Rej.	0	0	0	0	0	0
	% of Rej.	0	0	0	0	0	0
Mar '24	No. of Samples	1264	0	726	198	50	2238
	No. of Tests	3798	0	726	2184	150	6858
	No. of Rej.	0	0	0	0	0	0
	% of Rej.	0	0	0	0	0	0
1st April'23 to 31st March'24	Total No. of Samples	13130	24	8248	2689	833	24924
	Total No. of Tests	40570	24	8248	27584	2495	78921
	Total No. of Rej.	4	0	0	0	0	4
	% of total Rej.	0.031	0	0	0	0	0.016

### 4.8.3 Steel Foundry: (Metallurgical & Chemical Lab/Steel Foundry)

Month		Type of Test				Total
		Sand Stage Lab.	Physical	Raw Material & Chem.	Field Furnace Lab.	
April '23	No. of Samples	1393	7	33	105	1538
	No. of Tests	1473	7	264	271	2015
	No. of Rej.	0	0	0	0	0
	% of Rej.	0	0	0	0	0
May '23	No. of Samples	1404	7	20	101	1532
	No. of Tests	1494	7	160	314	1975
	No. of Rej.	0	0	0	0	0
	% of Rej.	0	0	0	0	0
June '23	No. of Samples	1380	9	13	121	1523
	No. of Tests	1440	9	104	388	1941
	No. of Rej.	0	0	0	0	0
	% of Rej.	0	0	0	0	0
July '23	No. of Samples	1842	6	14	140	2002
	No. of Tests	1902	6	112	441	2461
	No. of Rej.	0	0	0	0	0
	% of Rej.	0	0	0	0	0
Aug '23	No. of Samples	1581	10	11	146	1748
	No. of Tests	1641	10	888	453	2192
	No. of Rej.	0	2	0	0	2
	% of Rej.	0	20	0	0	0.11
Sep '23	No. of Samples	1614	7	12	118	1751
	No. of Tests	1674	7	96	324	2101
	No. of Rej.	0	0	0	0	0
	% of Rej.	0	0	0	0	0
Oct '23	No. of Samples	1175	5	5	122	1307
	No. of Tests	1185	5	38	388	1616
	No. of Rej.	0	0	0	0	0
	% of Rej.	0	0	0	0	0
Nov '23	No. of Samples	1147	8	7	122	1284
	No. of Tests	1227	8	50	471	1756
	No. of Rej.	0	0	0	0	0
	% of Rej.	0	0	0	0	0
Dec '23	No. of Samples	1481	7	24	107	1619
	No. of Tests	1491	7	183	531	2212
	No. of Rej.	0	0	0	0	0
	% of Rej.	0	0	0	0	0
Jan '24	No. of Samples	1602	8	15	107	1732
	No. of Tests	1662	8	108	535	2313
	No. of Rej.	0	0	0	0	0
	% of Rej.	0	0	0	0	0
Feb '24	No. of Samples	1523	6	9	118	1656
	No. of Tests	1533	6	72	590	2201
	No. of Rej.	0	0	0	0	0
	% of Rej.	0	0	0	0	0
Mar '24	No. of Samples	1416	5	4	105	1530
	No. of Tests	1476	5	32	470	1983
	No. of Rej.	0	0	0	0	0
	% of Rej.	0	0	0	0	0

1 <sup>st</sup> April'23 to 31 <sup>st</sup> Mar'24	Total No. of Samples	19222
	Total No. of Test	24766
	Total No. of Rej.	2
	% of Rej.	0.01

#### 4.9 Safety Organization:

The personnel of safety department of Steel Foundry/CLW regularly monitor the safety related parameters i.e. use of Personnel Protective Equipment, proper use of material handling equipment, unsafe working practices etc. to ensure the safety of staff in SF/CLW.

In addition, following safety drive was conducted in Steel Foundry w.e.f. 12.06.2023 to 11.07.2023 by the team consisting of Dy.CME/SF, AWM/SF, SSE/ERS/SF and AC&M/SF to ensure the safety of the staff of SF/CLW.

Safety section also conduct Plant safety inspections, In shop interactive safety Awareness programme, investigations of accidents and recommend remedial measures, They also plan for motivating staff for consciousness, use of safety equipment and compliance of statutory act and regulations in a regular manner.

As preventive measures every worker is provided with PPE like helmet, safety shoes, nose mask, ear plug/muff, hand gloves, goggles for staff of concerned workers, more over exhaust fitted on the roof, PCD attached with Furnace, Sand Plant & Pattern Shop to minimize environment pollution. Fire extinguishers are placed at various locations to put off the fire. Fire hydrants for supply of water during emergency installed at various locations with the factory premises. Water sprinklers are fitted on the top of the LPG bullet to cool down the bullet during summer.

As per statutory obligation safety section/SF also persuade to monitor Occupational Health Hazards, periodical Medical check-up of staff of Steel Foundry.

It also maintains liaison with the office of the Dy. Chief Inspector of Factories, and Sr. Environment Engineer/West Bengal Pollution Control Board of Asansol and Kolkata, Compliances of the issues required by both the statutory bodies mentioned above are done from item to time.

#### a) Supply & use of Personal Protective equipment provided during the year 2023-24 in locoshop:

Period	Types of PPE distributed/replaced	No. of PPE distributed/replaced
01-04-23 to 31-03-24	i. Industrial Safety Shoes	4,496 Pairs
	ii. MIG welding hand gloves	1,189 Pairs.
	iii. Dust proof factory goggles	765 Nos.
	iv. Industrial Safety Helmet	2,543 Nos.
	v. Nitrite Hand Gloves (size 12')	1,833 Pairs
	vi. Leather Gauntlet (General)	19,139 Pairs
	vii. Leather Gauntlet (Hot material Handling)	233 Pairs
	viii. Welding face protective helmet	204 Nos.
	Total	30,402 units

**b) Safety Awareness & Violation of Unsafe Acts & Unsafe Condition in loco shop for FY 2023-24:**

Safety Awareness & Violation of Unsafe Act & Unsafe Condition are monitored strictly at regular basis in Loco Shop.

**c) Various duties performed by Safety Organisation/Loco in FY 2023-24.**

SN	Particulars	Status
1	Eye test (for certain category of staff of locoshop)	577 Staff
2	Medical test	4785 Heads
3	Vertigo Test for working at height	273 staff
4	Fire Hydrants and static Tanks checking with Fire department and Civil Engg. Department (Weekly)	Done on Weekly Basis
5	Chains and Cranes, Pressure vessels, testing checking	Done by M/s Shodhyantrik, Burdwan, WB
6	Work Zone Monitoring.	Done on 09.05.23

**d)** Safety Awareness week was celebrated in CLW from 4<sup>th</sup> to 10<sup>th</sup> of March 2024.

**Annexure – 4.1**

Statement of accidents and man-days lost during 2019-20 to 2023-24 showing monthly injury rate and man-days lost per 1000 men in loco works and steel foundry.

**LOCO WORKS**

Year	Monthly Avg. No. of Staff	Total No. of Accidents	Monthly No. of accidents	Total Man-days Lost	Monthly Avg. Man-days Lost	Monthly Avg. Rate of accident per 1000 men	Monthly Avg. Man-days lost per 1000 men
2019-20	5122	01	0.083	17	1.42	0.016	0.277
2020-21	4878	04	0.33	178	14.83	0.0676	3.04
2021-22	5440	06	0.5	354	29.5	0.092	5.423
2022-23	5288	07	0.58	424	35.33	0.11	6.68
2023-24	5163	05(04+01)CS	0.41	223	18.58	0.079	3.599

Cs=Fetal of Contractual staff of Engg. Dept.

**STEEL FOUNDRY**

Period	Monthly avg. No of staff	Total No of accident	Monthly No of accident	Total man days lost	Monthly avg. man-days lost	Monthly avg. rate of accidents per 1000 men	Monthly avg. man days lost per 1000 men
2019-20	600	0.00	0.00	0.00	0.00	0.00	0.00
2020-21	501	01	0.083	31	2.583	0.166	5.156
2021-22	368	01	0.083	76	6.33	0.225	17.2
2022-23	309	NIL	NIL	NIL	NIL	NIL	NIL
2023-24	301	01 (Fatal)	0.08	6000	500	0.0266	1661.13

**Statement of accident at CLW main Loco works, Steel Foundry, Engg. Dept., CPH and all other establishment from 2018-19 to 2022-23**

YEAR	Total No of Staff	Total No. of Accidents	Monthly avg. no. of accidents	Fatal	Serious	Minor	Monthly avg. Rate of accident per 1000 men
2019-20	0592	2	0.167	NIL	NIL	2	0.016
2020-21	6242	06	0.5	NIL	06	NIL	0.08
2021-22	6570	11	0.917	NIL	06	05	0.14
2022-23	6268	07	0.58	NIL	0	00	0.092
2023-24	6082	08	0.67	02	03	03	0.110

## **CHAPTER – V**

### **CIVIL ENGINEERING**

5.0 Chittaranjan is an exclusive township for CLW employees and the biggest Railway Colony. It is a protected area. The salient features are as follows:

Area of CLW Township	1834.441 Hectare
Total Length of Boundary wall of CLW Township	18.3 Km.
Length of Road	204.70 Km.
Length of Water Pipe Line	370.485 Km.
Length of Sewer Pipe Liner	274.196 Km.
Area of Rly. Track / Length of Rly. Track	04.44 Hectare / 46.01 Tkm
Welfare Building including Road	17.45 Hectare
Area of School, College Buildings etc.	107.94 Hectare (13 No's)
Area of Hospital, Health Units etc.	08.83 Hectare (06 No's)
Area of Environment Park, Children Park etc.	113.58 Hectare (17 No's)
Area of Market	20.48 Hectare (08 No's)
Community Halls including Play Ground	56.628 Hectare (08 No's)
RPF/RPSF Barrack including Parade ground	34.238 Hectare (04 No's)
Staff Qrs. Including Road fenced areas	848.33 Hectare (9,098 No's)
Workshop Area	101.26 Hectare (71 No's Shed)
Water Channel Area	45.18 Hectare
Area of Aforestation	270.486 Hectare
Area of Lakes	86.80 Hectare (07 No's)
Area of Stadium	68.05 Hectare (04 No's)
Area of Sewerage Treatment Plant & Water Filter Plant	34.0 Hectare (01 No STP & 01 No WFP).

#### 5.1 Position of Rly. Land under CLW township:

Sl. No.	Description	Approx. Area
1.	Total Area of Land	1834.441 Hectare
2.	Vacant Land	3.765 Hectare
3.	Land under Utilization	1830.676 Hectare

#### 5.2 Quarters Facilities at Chittaranjan Township:

“A” Type/Type-I(S/S & D/S)	3,993 nos.
“B” Type/Type-II(S/S & D/S)	3,831 nos.
“C” Type/Type-III	977 nos.
“D” Type/Type-IV	249 nos.
Bungalow/Type-V	48 nos.
<b>Total:-</b>	<b>9,098 nos.</b>

#### 5.3 Water Requirement:

In colonies, quarters & service buildings are connected with water supply system.

Filtered Water/ Fresh water	150.32 lakh litres per day
Un-filtered water	14 lakh litres per day for garden purpose



#### 5.4 Water Facilities Available:

No. of RCC Over Head Tank	30 nos.
Total capacity	30.32 Lakh Gallons
No. of PVC O.H. tank	463 nos.
No. of Wells	202 nos.
No. of Tube Wells	378 nos.
No. of Aeration tank	01 no.
<b>No. of Lakes :-</b> 1. Hospital Colony Lake near K.G. Hospital 2. S.P. East Lake near Petrol Pump 3. Office Road near Administrative Building 4. S.P. North Lake near Street No. 1/D 5. Main Lake near Karnail Singh Park 6. Fatehpur lake near Simjuri link Road 7. Back of Horticulture	07 os.

#### 5.5 Water Supply System:

1. Maithon Reservoir impounding water from the river Barakar (Jharkhand) is the main source of raw water. The 25'-0" dia Intake Well at Sidhabari with 04 nos. Pumps (No. 1 & 4 = 1.6 lakh gallons per hour cap. & No. 2 = 1.0 lakh gallons per hour and No.3 = 2.5 lakh gallons per hour capacity) and 24" dia. C.I. Pipes 7.8 Km. long from the system through which the raw water is being fed to Filtration Plant. average withdrawal of raw water for distribution of water supply in township & workshop is about 622336.0006 Kilo Litre per month.
2. Lake within CLW Township (49.92 crores gallons cap.) caters emergency requirement through pumping installation located at Main Dam, Office Road Dam. Lake water is used to cater the emergency requirement especially during the summer season for drinking. Water from lake is used throughout the year for workshop and av. consumption is about 1136 Kl. per day.
3. Filtration plant consists of 06 nos. Rapid Sand Filter Beds of cap. 50,000 gallons per hour each, 02 nos. of clarifloculators. settling tank & arrangement for pre & post chlorination (chlorine Gas is used for sterilization) 13 nos. pumps are used to pump filtered water to RCC Over Head Tanks at various locations in the township.

#### 5.6 Sewerage System:

There are two sewerage treatments Plant every Qrs. & Service Buildings are connected with sewerage line system. They are as follows:-

- Activated Sludge Plant: - Dry weather flow 1.2 mgd. & max. capacity 4 mgd.
- Bio-Filter Plant: - Dry weather flow 1.0 mgd. & max. capacity 3 mgd.

### 5.7 Market Facilities:

(i) Fatehpur Market (Area-1), (ii) S.P.North Market(Area-2), (iii) S.P.East Market (Area-3), (iv) Amladahi Market (Area-6), (v) R-7 Market (Area-5), (vi) BOW Market (Area-4), (vii) Simjuri Market (Area-7). (viii) H & H Market	08 Nos.
--	---------

### 5.8 Medical Facilities:

Hospital (Kasturba Gandhi Hospital)	01 no.
No. of Health Units:- (i) Fatehpur(Area-1), (ii) S.P.North(Area-2), (iii) Simjuri(Area-7), (iv) Amladahi (Area-4), (v) S.P.East (Area-3).	05 nos.
No. of Beds in Hospital	197 nos.

### 5.9 Entertainment & Recreation Facilities:

Clubs for Officers'	01 no.
Officers' Rest House (CRJ Bhawan, Kangoi Bhawan, Karnail Singh Bhawan, PC Mukherjee Bhawan) Subordinate Rest House (Mihijam Bhawan / Bakhle House)	05 nos.
Institutes (Basanti, Srilata, Sarat Chandra, Aurobindo)	04 nos.
Cinema Hall(Ranjan)	01 nos.
Community Hall:-(1) Area- 1(Fatehpur), (2) Area-2 (S.P.North), (3) Area-3 (S.P.East ,Hill ,Hospital ,R-site), (4) Area-4(Amladahi), (5) Area-5(Amladahi), (6) Area-6 (Amladahi) , (7) Area-7 (Simjuri), (8) Area-8 (New Hospital).	08 nos.
Auditorium (Rabindra Mancha near BOW Market)	01 no.
Marriage Hall (Amladahi near Area-5 Community Hall).	01 no.

### 5.10 Sports Facilities:

Indoor Stadium (Near DV Boys School)	01 no.
Badminton Hall (Near CRJ Bhawan)	01 no.
Gymnasium Hall (Indoor Stadium)	01 no.
Football Stadium (Srilata, Fatehpur, Oval Ground)	03 nos.
Swimming Pool(Basanti, Srilata & S.P.West near Officer's Club)	03 nos.
Golf Course cum Environment Park (Sunset Avenue)	01 no.
Rifle Shooting Range (Beside Badminton Hall)	01 no.
Archery Ground (Near DV Boys School)	01 no.
Hockey Ground (Beside Indoor Stadium)	01 no.

### 5.11 Parks:

<u>Area wise Parks:-</u> 1. S.P.West Park near OVAL Ground 2. Environment Park near Sun Set Av. 3. S.P.North Park near S.P.North Market 4. Simjuri Park between St. No. 85 & 86 5. Fatehpur Park near Community hall 6. Area Park near Area-5 Community hall 7. Area Park nerarArea-3 Community hall 8. Area Park near CR. 14, Between St. 31 & 32 Area-6 9. Area Park back of K.G.Hospital 10. S.P.East Market (near Ranjan Cinema Hal)	10 nos.
<u>Other Parks:-</u> 1. Loco Park, near Administrative Office 2. Children Park, Near Loco Park 3. Boat Club, near KG Hospital, 4. Kornail Singh Park, beside Works Office Lake 5. Diamond Jubilee Park, near DV Girls School 6. Ambedkar Park, near petrol pump 7. Vivekananda Park, near petrol pump 8. Sonar Gram Udyan, near Boat Club	08 nos.

### 5.12 Gardens:

<u>Details of Gardens at Rest Houses:-</u> 1. CRJ Bhawan 2. Kangoi Bhawan, 3. Mihijam House.	03 nos.
<u>Details of Gardens at Office Complex:-</u> 1. Steel Foundry 2. Time Office Gate (02 Nos), 3. D & D Office, 4. CPH, 5. Works Office, 6. GM Office (05 Nos), 7. EDP office, 8. CE Office, 9. RPF Town Post, 10. CCS Office, 11. KGH (05 Nos), 12. TTC 13. Ganapati Hut	22 nos.
<u>Details of Gardens at Schools:-</u> 1. CHS (EM) School, 2. D.V. Girls School 3. Sishu Vihar School	03 nos.

### 5.13 Permanent Way:

<b>GAUGE</b>	<i>AS ON 31.03.2024</i>
BG	46.01 Km..

### 5.14 Sleepers:

Gauge	Wooden		Cast Iron		Steel		Concrete	
	Durable	Untreated	CST Plates	Other	IRS	Other	PRC	RC
BG	201	75	2966	-	3734	--	43062	--

### 5.15 Turnouts:

Gauge	1 in 12	1 in 10	1 in 8 ½	Total
BG	01	--	67	<b>68 sets (65 sets F/S T/O with PRC 52 kg., 03 sets steel T/O 90R/75lbs rails with mixed sleepers).</b>

### 5.16 Speed Restriction:

Gauge	<b>As on 31.03.2024</b>
BG	30 Kmph / 15 Kmph

### 5.17 Statement of water way of bridge per track (linear water way of bridge per track):

Class of Bridge	Length of BG
Important Bridge	Nil
Major Girder Bridge No. 7 (01 no.)	13.30 mtr.
Minor Girder Bridge No. 4 (4.50 mtr.) & Minor Girder Bridge No. 5 (7.10 mtr.)	11.60 mtr.

### 5.18 Level Crossing:

Type	Qty.
C Class (manned)	Nil
C Class (unmanned)	05 nos.
<b>Total:-</b>	<b>05 nos.</b>

### 5.19 Workshop:

Land under Workshop	10,12,605 Sq. M.
Plinth Area in Shops including Store Shed	4, 88,674.013 Sq. M.

## 5.20 Details of workshop including office complex:

1.	Steel Foundry Complex	69,664 Sq. M.
2.	S.F. Office Complex	1,363 Sq. M.
3.	Traction Motor Shop	43,994 Sq. M.
3.	Main Assembly Shop	87,062 Sq. M.
4.	Plant Park, CPH, GSD etc.	2,15,700 Sq. M.
5.	Paint Shop	3,672 Sq. M.
6.	Works Office	3,370 Sq. M.
7.	CSD & MSD Store Godown	39,184 Sq. M.
8.	Pattern Shop	3,345 Sq. M.
9.	Design & Development Office Complex	3,687 Sq. M.
10.	ADMN. Office Complex.	10,242 Sq. M.
11.	Computer Bldg. Complex	1,197 Sq. M.
12.	AC Plant.	228 Sq. M.
13.	Telephone Exchange Complex.	473 Sq. M.
14.	DA Gas Godown	465 Sq. M.
15.	Parallel to Shop No. 26	5,000 Sq. M.
16.	New Paint Shop	732 Sq. M.
17.	New Test Shed	1,041 Sq. M.
18.	Extn. of Bay 9 A	781 Sq. M.
19.	New Shop Godown (02 nos.)	2,725 Sq. M.
20.	Godown near Diesel Pump S-4	900 Sq. M.
21.	Godown S-1	750 Sq. M.
22.	D.A. Gas godown near AMU	465 Sq. M.
23.	Logistic Hub	2000 Sq. M.
24.	<b>SECURITY FACILITIES :-</b> (i) SC/RPF COMPLEX (ii) RPSF COMPLEX (iii) OC/WBP	(i) Near GM's Office complex (ii) At Technical Trg. Center (iii) At Fatehpur Colony
25.	<b>FIELD UNITS FOR ELECTRICAL DEPTT.-</b>  1. S.P. NORTH ELEC. OFFICE 2. AMLADAHI ELEC. OFFICE 3. SIMJURI ELEC. OFFICE 4. S.P. WEST ELEC. OFFICE 5. HILL & HOSPITAL COLONY ELEC. OFFICE	Near SP North Market Near Bow Market Near SP North Market Ganapati Avenue Near KG Hospital
25	<b>FIELD UNITS FOR ENGG. DEPTT.-</b> (I) SSE(W)/Col.-I (II) SSE(W)/Col.-II (III) SSE(W)/Col.-III (IV) SSE(W)/WS (V) SSE(W)/PP (VI) SSE(W)/WD (VII) SSE(W)/STP (VIII) In-charge/Horticulture (IX) JE/P.Way (X) SSE(W)/DKAE	Near Petrol Pump Near Area 4 Community Hall Near Simjuri Market Near TTC Near GSD Near Hill Top Fatehpur Near Hill Top Near TTC Dankuni

### 5.21 Financial Institutions:

1.	STATE BANK OF INDIA	Near Children Park
2.	STATE BANK OF INDIA	Near Works Office
3.	BANK OF INDIA	Near Gate No. 3
4.	ATM Counter of SBI	GM's Office, Time Office, S.P. North Market, SBI Main Branch, Works Office Branch & Amladahi Market.
5.	ATM Counter of BOI	Bank Of India Main branch, near gate No. 3.
6.	CLW CO-Operative Credit Society	Near GM's Office complex.
7.	Post Office	04 nos. – Near petrol pump, St. No. 22, Near Time Office Gate, Simjuri.

### 5.22 Union Offices:

1.	SC & ST Association	Near GM's Office complex Garage.
2.	OBC Staff Association	Near GM's Office complex (East Block)
3.	CLW-OBC Railway Employees Association	Old Desh Bandhu Buniyadi Vidyalaya, West Amladahi

### 5.23 Welfare Organization:

1.	Civil Defence Organization.	Near Amladahi Health Center.
2.	Bharat Scouts & Guides.	Near S.P.North Community Hall.

### 5.24 Position of Rly. land under Dankuni:

Sl. No.	Description	Approx. Area
1.	Total area of Land of ELAAU Dankuni including DLCF unit	61.43 Acres

### 5.25 Quarters Facilities at Dankuni:

Type II (G+3)	40 nos.
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### 5.26 Details of Workshop Including Office Complex at Dankuni :

ELAAU, CLW UNIT	
(i) ADMN Building	1216.104 Sqm
(ii) Main Workshop Shed-1	21000 Sqm
(iii) Main Workshop Shed-2	10000 Sqm
(iv) Workshop Office	8400 Sqm
(v) Pump House	12.96 Sqm
(vi) Parking Shed	844.80 Sqm
(vii) Store Depot.	651 Sqm
(viii) Electric Sub Station	644.60 Sqm
(ix) RPF Post	195.52 Sqm

<b>DLCF UNIT</b>	
(i) PCMM Office	847.51 Sqm
(ii) Office Building	2107 Sqm
(iii) Bogie Shop	4984.80 Sqm
(iv) Store Depot & Office	2257.48 Sqm
(v) RPF Post & Barrack	529.82 Sqm
(vi) Electric Substation 3	249.60 Sqm
(vii) Compressor Room	589.68 Sqm
(viii) Under frame Shop	5616 Sqm
(ix) Feeder Shop	7488 Sqm
(x) Tool Room	936 Sqm
(xi) M/W Section	936 Sqm
(xii) Shop Office	562.80 Sqm

## **CHAPTER- VI**

### **MATERIAL MANAGEMENT**

#### **6.1 General**

Material Management Organization at CLW provides total materials support for all types of Loco manufacture, materials for Steel Foundry and in-house manufacture of Traction Motors. This support covers estimation of demand, procurement, warehousing, supply and distribution. In addition, Material Management department is also entrusted with the task of disposal of scrap arising out of various manufacturing activities.

#### **6.2. Organisation**

Organization of Stores Department of Chittaranjan Locomotive Works consists of the following units,

- A. Purchase office at Chittaranjan.
- B. Purchase office at Howrah
- C. Stores Depot at Chittaranjan
- D. Stores Depot at Dankuni

##### **6.2.1 Purchase Office at Chittaranjan:**

This office is under the administrative control of Principal Chief Materials Manager who is assisted by 03(three) Chief Materials Manager, 05 (five) Dy. Chief Materials Managers, 01(one) Senior Materials Manager and 03(three) Assistant Materials Manager to handle purchase work and all other Materials Managerial works.

##### **6.2.2 Purchase office at Howrah:**

This office also functions under the Administrative control of Principal Chief Materials Manager, who is assisted by 02 (two) Chief Materials Manager, 02 (two) Deputy Chief Materials Managers and 02(two) Assistant Materials Managers in the matter of procurement required to stores, except those entrusted to purchase office at Chittaranjan.

##### **6.2.3 Stores depots at Chittaranjan and Dankuni:**

There are total 08(eight) Stores Depots in CLW ( 7 at Chittaranjan & 1 at Dankuni), engaged in receipt, storage and issue of stock items and disposal of scrap, as follows. These Depots are headed by Dy. CMM (D), 01(one) Senior Materials Manager and 06(six) Assistant Materials Managers.

###### **6.2.3.1 Central Stores Depot (Depot Code-01):**

This depot deals with stocking of general items, chemical, paints, stationary and items required for electrical and civil engineering maintenance. This depot stocks about 489 items. Annual issue value about Rs.8.43 Crores.



### **6.2.3.2 General Stores Depot (Depot Code-02):**

This depot deals with uniforms, public health items etc having Annual issue value about Rs. 9.30 Crores. This depot stocks about 09 items. Disposal of Scrap is also done by GSD having annual sale of scrap is about Rs. 14.02 Crores.

### **1.2.3.3 Metal Stores Depot (Depot Code-03) :**

This depot deals with stocking of steel items, electrodes, gases, POL and other raw materials required for manufacture of Locomotive. This depot stocks about 232 items. Annual issue value is about Rs.40.58 Crores.

### **1.2.3.4 Three- Phase Loco Depot (Depot Code-04) :**

This depot deals with stocking of all items required for manufacture of all types of 3 phase electric locomotives. Depot stocks about 920 items. Annual issue value is about Rs. 3810.59 Crores.

### **1.2.3.5 Electric Loco Depot (Depot Code-05) :**

This depot deals with stocking of all conventional loco items. This depot is holding about 22 items. Annual issue value is Nil as production of conventional Loco discontinued.

### **6.2.3.6 Steel Foundry Stores Depot (Depot Code-06) :**

This depot deals with stocking of all items required for production at Steel Foundry. This depot stocks about 197 items. Annual issue value is about Rs. 15.73 Crores.

### **6.2.3.7 Traction Motor Depot (Depot Code-07) :**

This depot deals with stocking of all items required for manufacture of 3 phase traction motors Type 6FRA-6068 and 6FXA-7059. This depot stocks about 305 items. Annual issue value is about Rs. 1013.47 Crores.

### **6.2.3.8 Dankuni Ancillary Unit (Depot Code-08) :**

The Stores depot at Dankuni is under control of 01(one) Assistant Materials Manager. This depot deals with about 285 items. Annual issue value is about Rs. 645.56 Crores.

### **6.2.3.9 Central Receipt Branch (RB) :**

This branch is responsible for receipt, inspection, accountal and handling of incoming materials. More than 9855 (CRJ+DKAE) consignments, valuing approx. Rs. 5432.71 Crores are dealt by this branch.

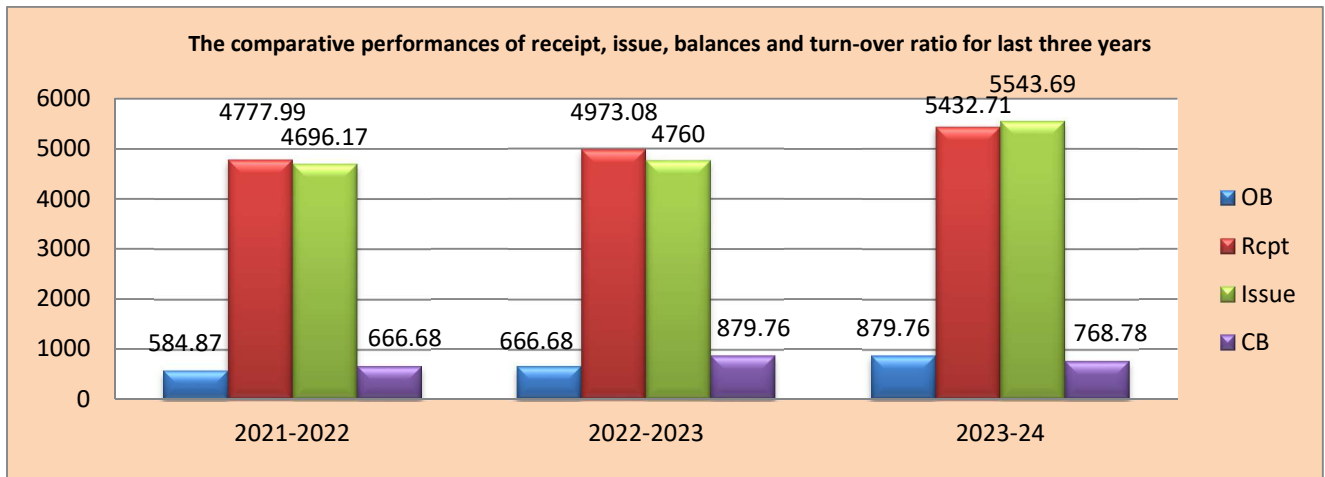
### 6.3 Inventory Performance:

#### 6.3.1 Balances and turn-over ratio:

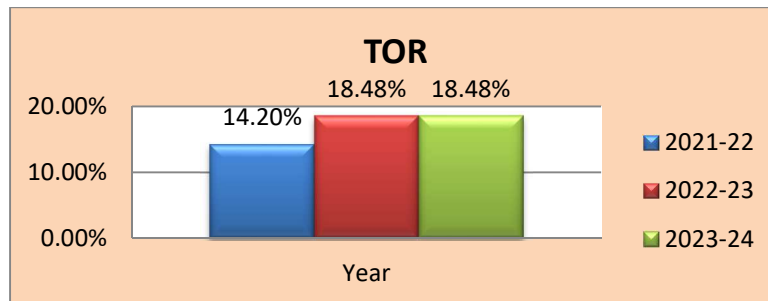
The comparative performances of receipt, issue, balances and turn-over ratio for last three years are given below:-

( Fig. in crores of Rs. )

Year	Opening Balance	Receipt	Issue	Closing Balance	Turn-Over Ratio - % age .
2021-2022	584.87	4777.99	4696.17	666.68	14.20%
2022-2023	666.68	4973.08	4760.00	879.76	18.48%
2023-2024	879.76	5432.71	5543.69	768.78	13.87%



- Targeted Turn Over Ratio for FY 2023-2024 was 14.35 %.
- Turn Over Ratio achieved during the FY 2023-2024 is 13.87 %



#### 6.3.2 The comparative figures of Locos manufactured and total issue value of stores for the last 3 Years are as under:

( Fig. in crores of Rs. )

Year	No. of locos manufactured	No of Traction motors manufactured	Total issue value of TM stores	All depot issue value
2021-22	486	2007	1050.40	4696.17
2022-23	436	2201	1141.92	4760.00
2023-24	580	1980	1013.47	5543.69

**6.3.3 Group wise break up of opening balances and closing balances (exclusive of adjustment) for the last 2 years are as below:**

( Fig. in thousand of Rs. )

GROUP	2022-23		2023-2024	
	Opening Balance	Closing Balance		Opening Balance
10-19	22,50	0	0	59,62
20-29	604,57,09	822,54,90	822,54,90	702,23,33
30-39	0	0	0	0
40-49	1,10,88	85,58	85,58	69,34
50-59	0	0	0	0
60-69	32,21	28,82	28,82	42,49
70-79	7,85,85	6,85,57	6,85,57	9,20,80
80-89	5,00,38	7,36,43	7,36,43	6,85,88
90-98	47,59,22	41,84,44	41,84,44	48,76,84
TOTAL	666,68,13	879,75,74	879,75,74	768,78,30

**6.3.4 Variety Reduction:**

CLW maintain 2549 nos. of Stock items to cover the requirement of various manufacturing and maintenance activities. Review of the Stock items is made regularly. The number of items stocked at the end of last three years is as below:-

YEAR	NO. OF ITEMS
2021-2022	2976*
2022-2023	2687*
2023-2024	2549*

\*Including scrap items.

**6.3.5 Standardization:**

CLW is nominated for allotment of unified PL number for main group 25 & 29. Overall progress of PL unification after implementation of new portal in iMMS is as under-

(a) Request received from Zonal Rlys.	682 Nos.
(b) Request complied	597 Nos.
(C) Request returned as already allotted earlier	85 Nos.
(d) Request returned being unconcerned	NIL
(e) Request pending for allotment	NIL

**6.3.6 In-active and surplus stocks:**

The details of inactive and surplus items during last 3 years are as under:-

(Value in Crores of Rs.)

Year	Inactive		Surplus		Total	
	Nos.	Value	Nos.	Value	Nos.	Value
2021-2022	299	48.64	10	0.0148	309	48.6548
2022-2023	270	48.28	10	0.1681	280	48.4481
2023-2024	230	51.57	10	0.0166	240	51.5866

## 6.4 Purchase:

Agency wise purchase statistics:

Agency wise purchases made during last 3 years are as below:-

(Fig. in Crores of Rs. )

Year	Through DGS&D	Through others including Rly. Bd.	Direct by PCMM	Total
2021-2022	0.000	43.72	4274.93	4318.65
2022-2023	0.000	52.29	4156.69	4208.98
2023-2024	0.000	1465.72	3883.69	5349.41

### 6.4.1 Indigenization & Import Substitution:

The value of stores imported and purchased indigenously for the last 3 years are given below:-

( Fig. in Crores of Rs. )

Year	Value of Stores Imported	Value of Stores Indigenious	Total Value	% age of Import
2021-2022	54.89	4225.07	4279.96	1.28%
2022-2023	14.80	4267.46	4282.26	0.35%
2023-2024	40.16	5309.25	5349.41	0.75%

### 6.4.2 Issue of Stores:

Timely supply of all components, raw materials and spares has been maintained during the year, which ensured production of 580 locos in 2023-24. CLW had produced 436 locomotives in 2022-23.

### 6.5.1 Out of Stock:

Percentage of items out of stock at the end of last 3 years is given below:-

Year	Nos. of items stocked	Nos. of items out of stock	Out of stock percentage
2021-2022	2889*	117	4.05 %
2022-2023	2595*	368	14.18 %
2023-2024	2459*	399	16.23 %

\*Excluding Scrap Item.

### 6.5.2 Stock verification of stores:

Details of stock verification of stores for last 3 years are given below:-

Year	% of items verified with no discrepancies	% of items with discrepancies up to limit of Rs. 50/-	% of items with discrepancies up to limit Rs. 1000/-	% of items with discrepancies above the limit of Rs. 1000/-
2021-2022	99.52	0.00	0.00	0.48
2022-2023	99.54	0.00	0.10	0.36
2023-2024	99.37	0.00	0.13	0.50

## 6.6 Theft and loss cases:

There is no reported case of theft or loss due to theft in the last 3 years.

## 6.7 Unit Costs:

### 6.7.1 Unit cost of purchase:

Total expenditure of all staff on purchase and the total value of purchase made during the last 3 years are given below:-

Year	Total Expenditure of stores staff at CRJ & DKAE ( in Rs. Crores )	Total value of stores purchased ( in Rs. Crores )	Cost of purchase per every Rs. 100/- worth of stores (in Rs.)
2021-2022	13.87	4402.22*	0.32
2022-2023	13.79	4415.10*	0.31
2023-2024	14.77	5367.83*	0.28

\*Including Non Stock Purchases.

### 6.7.2 Unit cost of issue:

Year	Value of Stores Issued during the Year (in Rs. Crores)	Pay & allowances of depot staff (in Rs. Crores)	Cost of issues of stores worth of Rs. 100/- (in Rs.)
2021-2022	4696.17	26.90	0.57
2022-2023	4760.00	26.94	0.57
2023-2024	5543.69	24.87	0.45

### 6.7.3 Unit cost of receipt:

Year	Value of stores received (in Rs. Crore)	Pay and allowances of Receipt Depot Staff (in Rs. Crore)	Cost of receipt of stores worth of Rs. 100/- (in Rs.)
2021-2022	4777.99	3.16	0.07
2022-2023	4973.08	2.81	0.06
2023-2024	5432.71	2.54	0.05

## 6.8 Disposal of scrap:

Being a production unit, CLW generates limited scrap as a bye product of manufacturing activities. This mostly consists of packing materials, off-cuts of ferrous and non-ferrous bars, plates and sheets and pit side scrap from Steel Foundry. Most of steel scrap generated is used as raw material for the Steel Foundry, leaving only a small quantity for sale. Total arising of scrap for sale purposes during last three years are as below:-

(Value in Rs. Lakhs)

Year	Scrap Ferrous & Cond. M/C		Scrap Non-ferrous		Total Value (Realized)	Target
	Tonnage	Value	Tonnage	Value		
2021-2022	5516.825	1686.466	102.859	496.058	2182.500	1800.00
2022-2023	4655.200	1909.110	141.160	630.017	2670.187	2500.00
2023-2024	2964.285	982.774	93.943	362.028	1401.747	2500.00

**6.8.1 Details of Melting scrap received from shop and used in S.F during the last 3 years are as under:**

( Value in Crores of Rs.)

Year	Tonnage	Value
2021-2022	1949.779	7.35
2022-2023	1627.000	6.97
2023-2024	1401.983	6.02

**6.9 Shipping:**

Total clearances of imported consignments during the last 3 years are given below:-

YEAR	No. of consignment received & cleared		Total	Value( in Crores of Rupees )
	By Sea	By Air		
2021-2022	02	09	11	37.74
2022-2023	05	11	16	37.32
2023-2024	01	13	14	25.24

**6.10 Assistance to Zonal Railways:**

In addition to full material support for Loco manufacturing and other maintenance activities, CLW Stores has assisted Zonal Railways with urgent spares for Electric Loco maintenance. Supply of spares to Zonal Railways during last 3 years is as below:-

YEAR	Value of stores supplied ( in Crores of Rupees )
2021-2022	155.48
2022-2023	589.97
2023-2024	459.00

**6.11 Computerization:**

**6.11.1 Computerization of purchase office at Dankuni & Chittaranjan:**

At both Chittaranjan & Dankuni/Howrah purchase office iMMS has been implemented. All purchase activities such as purchase proposal preparation, Tender schedule preparation, Publication of Tenders, vetting of Purchase orders and release of Purchase orders are being done through iMMS. Other activities such as PL unification, PL allotment, Scrap data entry, PACE data entry and various types of reports are also being generated through iMMS/IREPS. TC/DA cases are being finalized through IREPS.

**6.11.2 Integrated Material Management System:**

In CLW/Chittaranjan iMMS Depot module has been implemented on 27.11.2017. All depot activities such as MPS generation, online requisition by shop, R/Note preparation, posting of all types of issue vouchers etc. are being done through iMMS . Small value items are purchased through iMMS at depot level. Depot related queries are also being generated through iMMS.

**6.12 Progress of works programme for stores department under umbrella works:**

SL NO.	Name of the Work	Status	Remarks
1	Concrete Flooring for keeping stock items in open space at the existing area in front of Q Ward 3-Ph, behind P/TM Godown (Approx Area 10 Mtrs. x 15 Mtrs).	Under Process.	Sent to Dy. CE/CLW/CRJ on 21.12.2023 to take under Umbrella Work 2024-2025.
2	Concrete Flooring for stocking of items in open space at the existing area in front of New Godown up to Paint Godown near diesel pump (Approx Area 10 Mtrs. x 35 Mtrs).		
3	Construction of Open Air Shed of 10 Mtrs. clear Height with concrete flooring between the vacant area between H- Ward and Pattern Shop (1500 sqm.)		

**6.13.0 Action Plan for Material Availability and Progress for Off-Loaded items:**

Production of 580 Locos target was achieved in 2023-24 with limited man power and work-space. The vendor base has also been expanded readying CLW to produce over 500 Locos every year. Paperless working using IT tools (IREPS, E-Tender & e-Office) already started. All tenders are finalized and P.O. placed online with adoption of iMMS. CLW become first PU to be on iMMS platform. This has resulted into much improved inventory management with high service level.

**6.14.0 Transparency in purchase:**

As drive to bring in the transparency in purchase all tenders are uploaded in down loadable form on IREPS website [www.ireps.gov.in](http://www.ireps.gov.in). Offers submitted and rankings can be viewed by tenderers after due opening date.

**CHAPTER – VII**  
**PERSONNEL MANAGEMENT**

**7.0 Staff Strength:**

Category	Sanctioned strength as on 31.3.2024	On roll
GROUP 'A'	150	87
GROUP 'B'	70	77
<b>TOTAL</b>	<b>220</b>	<b>164</b>
GROUP 'C'	10153	7240
GROUP 'D'	1962	1229
<b>TOTAL</b>	<b>12115</b>	<b>8469</b>
<b>GRAND TOTAL</b>	<b>12335</b>	<b>8633</b>

\* As per Railway Board's order, JS posts are being filled up through Group B selection.

**7.1. Industrial Relations:**

There are four recognized Associations and twelve unrecognized Unions/Associations functioning in CLW. Staff Council was functioning in CLW after being constituted w.e.f 18.12.1996 as a Permanent Negotiating Machinery and to maintain cordial Industrial Relations. The tenure of the Staff Council is three years. The last Staff Council was constituted on 18.10.2016, the tenure of which was expired on 17.10.2019. CLW Labour Union, one of the unrecognized Union has filed a Writ Petition in the Honourable High Court Kolkata for scrapping Staff Council and recognizing Trade Union by holding secret ballot. Honourable High Court vide their order dated 15<sup>th</sup> May 2017 has directed CLW to hold the election through Secret Ballot. AS on date there is no Staff Council is in operation. The same will be conducted by Railway Board on pan India basis.

**7.2. Education:**

An amount of Rs 18,06,000/-, during the financial year 2023-24, has been sanctioned as scholarship for students pursuing their professional studies in the streams of Medical/Engineering/MCA etc. There are three Railway Higher Secondary Schools are in operation. The renovation schools is undertaken. Each school is provided with Smart Class rooms & Computer Lab.

**7.3. Area Committee:**

The territorial jurisdictions of residential area of Chittaranjan Railway Townships have been divided in eight areas and the inhabitants of these eight areas had elected a vice-warden as well as one street member from each street to constitute the Area Committee. The warden and Assistant wardens are nominated from Administrative side. The area committee looks after the inhabitants of their respective area, promote sports, social, cultural activities and other welfare measures which are also organized by them from time to time. The election of Area Committee conducted on 14<sup>th</sup> May, 2023. New Area Committee is formed but operation is restricted due to administrative reasons.

**7.4. Institute:**

Four major Railway Institutes viz. Basanti Institute, Srilata Institute, Arobindo Institute and Sarat Chandra Institutes are functioning in 04 different areas of CLW promoting various sports, cultural and social activities and overall upliftment of the area. One general library is functioning in each institute, where facilitation of the poor students is also under taken by proving reference books from library.



The funds from the SBF is released to these Institute so that the railway employee and their wards are get benefited.

#### **7.5. Grant for sickness:**

Railway employee and their family members suffering from serious sickness have been sanctioned one time grant in order to mitigate their suffering. Patients referred to outstation for treatment have also been granted assistance from SBF to offer them some relief to compensate their outstation expenditure. An amount of Rs. 1320000/- has been incurred on this account.

#### **7.6. Grant for Funeral Expense:**

The funeral assistance to the deceased Railway employees has been granted @ amount of Rs. 10000/- per case in case of death of Railway employee is granted to the family members of deceased employee as Funeral expenses in the form of token assistance. An amount of Rs. 300000/- has been incurred during the financial year 2023-24 on this account.

#### **7.7. Engagement of Homeopathy Doctors:**

Two Homeopath Doctors have been engaged under Staff benefit fund Management Committee to provide the indigenous system of medicine to the Railway employees and their dependent family members in Chittaranjan. An amount of Rs. 1136488/- has been released from the SBF in the financial year 2023-24 towards honorarium and cost of medicine etc.

#### **7.8. Running of Dental Prosthetic Laboratory at K.G. Hospital:**

One Dental Prosthetic Laboratory is in operation at K.G. Hospital / Chittaranjan and artificial dentures are provided free of cost to the Railway employees and their dependent family members. An amount of Rs. 54806/- has been released from the SBF in the financial year 2023-24 towards honorarium of Dental mechanic and cost of denture.

#### **7.9. Women Empowerment:**

Self-defense training program for women employee was organized. An amount of Rs.9000 /- was incurred for the purpose. Felicitation of woman employees is conducted in the occasion of International Woman's Day. 15 No of women employees are felicitated.

#### **7.10 Provisional expenditure incurred from the SBF for the year 2023-24 on various head is appended below:**

Sl.No.	Payment	Amount(Rs.)
<b>1.</b>	<b>Education</b>	
a)	Technical Scholarship of 2021-22	751500
b)	Bidhan Lokmanya Scholarship of 2021-22	228000
c)	One time Grant-Technical Scholarship of 2021-22	427500
d)	One time Grant Bidhan Lokmanya Scholarship 2021-22	
e)	Non-Technical Scholarship + One time grant of 2021-22	168000
f)	Scholarship to children of staff in Level-4 and below of 2021-22	231000
<b>2.</b>	<b>Recreation and amusement</b>	

a)	Railway Holiday Camp	1050000
b)	Self Defence training honorarium	0
<b>3.</b>	<b>Relief &amp; Distress</b>	
a)	Assistance in self-sickness on account of LWP including one time grant	210000
b)	Dental Prosthetic lab (honorarium + material cost).	54806
c)	Honorarium to Homeopath physician and cost of medicine	1136488
d)	Funeral expenses to deceased employees	300000
e)	Radiography honorarium	0
f)	Assistance towards spectacles	100000
g)	Assistance for artificial limb	
<b>4.</b>	<b>Miscellaneous</b>	
a)	Scouting activates	0
b)	Celebration of Women's day for women empowerment	351372
c)	SBF Special Case (Election duty Death)	0
d)	Expenditure towards SBF meeting	5,000
	<b>Total</b>	5013666

## 7.11 Schools & Colleges:

### 7.11.1 CLW schools:

- Education facility provided in the Chittaranjan Township spread over 8 areas is as follows:
- No. of Junior Basic Schools (Primary):

Hindi Medium	CBSE	2
English Medium	WB Board	1
<b>Total</b>		<b>03</b>

- No. of Secondary Schools/Higher Secondary Schools (class VI to X) and (class VI to XII):

Hindi medium for Boys (HS)	CBSE Board	1
Hindi Medium for Girls (HS)	CBSE Board	1
English medium for Boys & Girls (HS)	West Bengal Board	1
<b>Total</b>		<b>3</b>

- 2901 nos of students have studied during the financial year 2023-24.

### 7.11.2 Other Schools:

In addition to the above, there are two Bengali medium Primary Schools, 4 Bengali Medium & 1 Hindi medium secondary schools (run by the West Bengal Government) is presently in operation. These schools are functioning satisfactorily. Two private schools, viz. St. Joseph's Convent School (Primary, Secondary & Higher Secondary) affiliated to ICSE Board and Burnpur River Side School up to Higher Secondary level following CBSE curriculum are also functioning in the township.

### **7.11.3 Kendriya Vidyalaya:**

One Kendriya Vidyalaya with classes from class I to Class XII (Science & Humanities) is also functioning in CLW catering educational need of the school children.

### **7.11.4 College:**

Deshbandhu Mahavidyalaya under the Burdwan University, subsidized by the State Govt. of West Bengal is also running in Chittaranjan.

### **7.11.5 Canteen:**

One Statutory canteen having its branches attached to Works Office & Steel Foundry, cater the workshop & Steel Foundry and one non-statutory canteen in the administrative office are functioning smoothly. Another non-statutory canteen is operation in the ancillary unit, ELAAU/DKAE. The non-statutory canteen is presently outsourced and efforts is being made to outsource the statutory canteens also for better management and better amenities.

### **7.11.6 Recreation:**

Two major and two minor Railway Institutes are functioning to cater to the social, cultural and recreational needs of the residents of CLW. Apart, there is a cinema hall, a children Park, Ganga Boat club run by CLW-WWO are also providing recreational and amusement facilities to the residents of Chittaranjan. Loco Park, which is also known as “Heritage Park” is open for the public on every day and provide joy rides to the children in the steam toy train on every Saturday. Yoga park is opened for the residents. Two swimming pools & two Multi Gymnasiums are also in operation. CLW cultural association and CLW Sports Association functioning in CLW to promote cultural and sports activities. One archery academy, one hockey ground, two indoor badminton, one Golf Court & Table Tennis courts are provided under CLWSA. One Hostel for the Archery Camp with all amenities is also allotted.

### **7.11.7 Scouts and Guides:**

Bharat Scouts & Guide CLW District Association is affiliated to Eastern Railway Bharat Scouts & Guides is functioning since 1963. The Chittaranjan District Association / Bharat Scouts & Guides is renamed as CLW District Association in 1983. It organized a number of scouting activities and services to the community. An awareness Rally carrying Poster Placard and sand to aware worker about safety in Main Workshop and Works Office under “Safety Week” was observed on 04-03-2023. On 05-6-2023, an awareness cycle Rally was organized to spread the message on World Environment day where all the District Official participated. A poster competition was also organized among the members. Our team preformed Nukkad Natak on 18-09-23 regarding cleanliness and Greenery at T.O. Gate Premises and Amladahi Market. They also performed Nukkad Natak in G.M. Office and in front of T.O. Gate to spared the Vigilance Awareness among cities on 02-11-2023 and on 24-11-2023, in Quomi Ekta campaign the members helped to collect donation for different orphanage Homes. Scouts and guides are also engaged in Pulse Polio programme each year as well as the services rendered by the Scouts & Guide in social & religious occasions.

## 7.12. Pension Scheme:

The progress of settlement cases under the pension rules is as under:

No. of cases pertaining to 2022-23	No. of cases occurring during 2023-24	No. of cases finalized	Total No. of cases pending
646	604	581	23

All the settlement cases are finalised through online mode (HRMS) and every settlement dues of NR cases are paid on the last day of every month.

## 7.13. Passes and PTOs (Availed by Staff/Officers) for the year 2023-24:

Retired staff & officers who availed Passes	13225
Staffs who availed Passes and PTOs	74764
Total Passes and PTOs issued	87989

The pass for railway employees are being issued through HRMS and retired employees are being allowed to take pass in both medium, i.e. HRMS or manual as per Board's order.

## 7.14. CLW Women's Welfare Organization:

### 7.14.1. Aims and Objectives:

- To promote, encourage and co-ordinate work for the welfare of Railway employees and their family members.
- To foster a spirit of friendship, unity and understanding amongst the Railway women.
- To provide assistance to deserving charitable institutions.
- Promotion of education, health, sports and artistic talents.

### 7.14.2 Centres run by CLW WWO:

- Shishu Vihar School – English Medium (Preparatory school)
- Ganga Boat Club (Outdoor recreation centre).
- Asha Kiran School for special children.
- Masala Centre & Flour Grinding Centre.
- File making Centre.
- Handicraft Centre.
- One shop for Masala as well as handicrafts is running at Amladahi Market.

### 7.14.3 Annual Activities:

- Organising “On the spot Drawing and Painting Competition” and “On the Spot Essay Competition” for Railway School children.
- Independence Day celebration.
- Teachers' Day celebration.
- Felicitation of employees on International Labour Day
- Durga Puja festival awards.
- Republic Day celebration.
- Saraswati and Viswakarma puja.
- Cash awards for meritorious students.
- Women's Day Celebration

## **CHAPTER VIII**

### **MEDICARE**

8. The Kasturba Gandhi Hospital was inaugurated by the then Governor of West Bengal, Dr.K.N.Katju on 12th. February 1951. The hospital has been offering optimal services to the CLW employees and their dependents, as well as Non-Railway patients who are directly connected to the township.

**Modular Operation theater** having Harmonic scalpel, Remote controlled OT table, Argon Plasma coagulation system, HD Laparoscopic system and ultra modern OT lights with camera, arthroscope and bronchoscope. Minimum invasive surgeries are done here on regular basis.

**The Cardiology Department** is equipped with 16 bedded ICU equipped with 4 ventilators, CTMT machines, Colour Doppler for 2D-ECHO Cardiography, Computerised Spirometer, Blood gas analyser, defibrillator with Computerised monitoring system for each bed alongwith infusion pump.

**Radiology department** is equipped with one Digital X-ray machine, 2 portable X-ray machines, and Ultrasonography. **Radiology Machine :-** Retrofit Digital Radiography System will help for instant Radiological Diagnosis by taking high definition X-Ray Images.

**Allengers CARM Fluoroscope:-** Allengers CARM Fluoroscope with Motorized Mechanical Motion is helpful in Operation Theatre setting and will help the operating surgeon for instant therapeutic maneuver. It is also helpful for implantation of PACE MAKER in future for emergency patients of complete heart block.

**Eye OPD** is equipped with auto Refractometer slit lamp direct and indirect ophthalmoscope pachymeters keratometer, non contact tonometer, OCT, USG-B Scan. It Provides comprehensive basic eye care service including refraction, Glaucoma management, Medical retina etc to be CLW beneficiary. cataract surgery in the form of phaco emulsification, Intravitreal Anti VEGF injections different minor surgery are performed / routinely.

Our hospital is providing large number of Regular laparoscopic Cholecystectomies, Laparoscopic appendectomies and Laparoscopic repair of incisional and ventral hernias. Caesarian sections and Suture less cataract operations are being done in this hospital.

Apart from this there is a fully equipped Physiotherapy unit, Pathology lab, Blood bank, Dental department. The Pathology lab has tie-up with CMC Vellore for External quality assurance in biochemistry to ensure reliability of test results. This gives perfection to our performance.

To satisfy the medical needs of the population of Chittaranjan Township, there are 5 Health units and one First aid post in workshop and Steel Foundry. A round the clock ambulance service is covered by four ambulances for the colony and the factory.

The bed occupancy of K.G. Hospital was 32.03% in 2023-24. A total of 137234 patients attended the OPD in 2023-24.

**HMIS:-** Presently 11 modules are running. Patients are getting medicine online and prescriptions are populated in their Mobile App. Almost 1.75 lakhs OPD Prescriptions generated through HMIS.

We have a tie up with the following hospitals for emergency and critical cases:

**8.1. We have a tie up with the following hospitals for emergency and critical cases:**

<b><u>NCR Region</u></b>	1. Medanta Medicity/Gurgaon 2. Max hospital/Delhi
<b><u>West Bengal Region:</u></b> <b><u>Kolkata Region</u></b>	1. B.M.Birla Heart Centre 2. Ruby General Hospital 3. Arunodaya Health Centre/Dankuni 4. HCG Eko Cancer Centre 5. Narayana Super speciality Hospital.
<b>Durgapur Region</b>	1. The Mission Hospital/Durgapur 2. Health World Hospital/ Durgapur 3. Mohanananda Health care Society/Durgapur
<b>Asansol Region</b>	1. The HLG Memorial hospital
<b><u>Tie up for CT scan is with</u></b>	1. M/s Modern Diagnostic Centre, Rupnarayanpur 2. M/s Millenium Diagnostic Centre, Asansol
<b><u>Tie up for MRI with</u></b>	1. M/s Medicare images, Asansol 2. M/s Avishkar Diagnostic , Asansol 3. M/s Modern Diagnostic Centre, Rupnarayanpur
<b><u>Tie-up with Diagnostic Laboratories</u></b> for Pathological & other type of diagnostic investigations (cashless service).	1. Lal Path Lab.

**8.2 Major Activities:**

- World breast feeding week from 1st week of August 23.
- Canaer Awareness Programme on 13.07.23.
- Basic Life Support Awareness At Workshop on 06.07.23
- National Doctors Day on 1<sup>st</sup> July 2023.
- World Breast Feeding week was observed on 1st week of August 23.
- Cancer Awareness Programme on 13.07.23.
- Republic Day 26<sup>th</sup> January' 2023.
- Health Talk - Geriatric Health Problems and Health Care K. G Hospital, CLW on 21.09.23.

**8.3 The following M&P items have been procured for 2023-24:**

- **X-RAY MACHINE:-** Retrofit Digital Radiography System will help for instant Radiological Diagnosis by taking high definition X-Ray Images.
- **Allengers CARM Fluoroscope:-** Allengers CARM Fluoroscope with Motorized Mechanical Motion is helpful in Operation Theatre setting and will help the operating surgeon for instant therapeutic maneuver. It is also helpful for implantation of PACE MAKER in future for emergency patients of complete heart block.



Doctors' Day on 01.07.2023



Basic life support demonstration to RPF at TTC on 06.7.2023



Cancer awareness program on 13.07.23



world breast feeding week 1st week of August 23



Independence day 2023



Health Talk – Geriatric Health Problems and Health Care K. G Hospital, CLW on 21.09.23



Importance Of Women Health To Female RPF Personnel On 12.10.23



62th National Pharmacy Week On 28.11.23





Awareness on sexual harrasment at workplace on 07.12.23



Special training module on Soft Skills for employees of Medical dept. 22.01.24 to 24.01.24



Republic Day 2024



Pulse Polio Vaccination Program 03.03.24

Swachha Pakhwara 01.10.23

Fire Fiting Training 28.02.24

#### 8.4 Important Events:

#### 8.5 Family Welfare:

The birth rate in CLW Township is lower than the national average rate and even better than the Indian railways average. A total of 18 sterilizations amongst the railway population were conducted during 2023-24.

612 children were immunized with Polio (third dose) + DPT, 120 with BCG vaccines during the year.

#### 8.6 St. John ambulance brigade:

The members of this organization actively participated in Pulse Polio, Durga Puja Immersion, blood donation camps, Inter Rail Football, Cricket, Archery and Local tournament etc in CLW.

#### 8.7 Emergency Services:

The Casualty Department is being manned by a Medical Officer & a Dresser round the clock. 02 nos. of Ambulances are available at K.G. Hospital round the clock, and one each at Loco works and Steel Foundry. The hospital, 5 health units and OPD are well equipped to fight any disaster.

#### 8.8 Public Health:

A total of 4792 water samples were tested for residual chlorine & all were found to be satisfactory. Out of 182 water samples tested for bacteriological contamination 01 were found unfit and proper remedial measures were taken immediately. There was no outbreak of malaria, dengue, chickengunia or any communicable disease in the colony due to proper sanitation, timely spray of anti-larvicides in drains.

#### 8.9 Medical Officers at CLW:

(as on 31<sup>st</sup> March' 2024)

Sanctioned Strength	26
UPSC Doctors on roll	15
EOL + Study Leave	04
CMPs on Roll	07

#### 8.9.1 Details about surgeries: Surgeon wise (by name details of major surgeries done monthwise for last 12 months).

(From Apr.'23 to March'24)

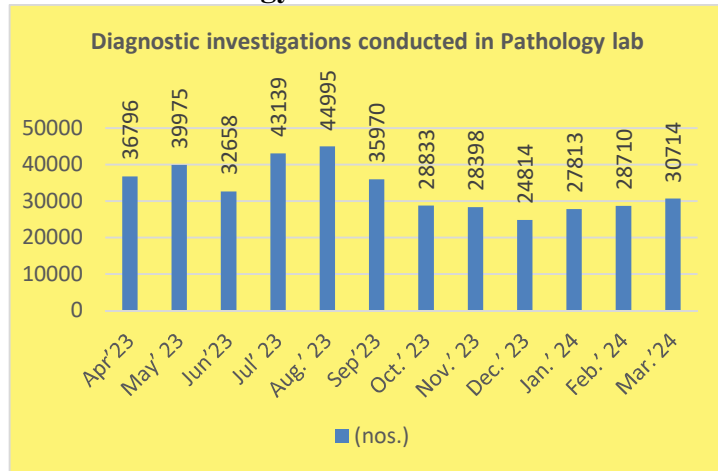
SN	Name of doctor	Specialty	Major Surgeries/ Special / Ortho.	Minor Surgeries
1.	Dr. A. Santra	G.Surgery/Ortho	38/28 nos./106	375
2.	Dr.A.K.Chakrabarti	ACMS/Eye	134	262
3.	Dr. T. Chakrabarti	Gynaecology	NIL	28
4.	Dr. S. Sengupta	Anaesthesia	60/75	142
5.	Dr.Madhuri Chittaru	Gynaecology	02	02

### 8.9.2 Training/Conferences/meetings attended by Doctors:

SN	NameDesig.	Training attended at	Period
1.	Dr. S.Sengupta, ACMS/G	NAIR / VADODARA.	22.4.2023 to 24.4.2023.
2.	Dr. R.K.Mukherjee, PCMO	NAIR / VADODARA.	24.4.2023 to 28.4.2022
3.	Dr. Anurag, DMO	NAIR / VADODARA.	26.6.2023 to 30.6.2023
4.	Dr. R.K.Mukherjeer, PCMO	NAIR / VADODARA.	24.7.2023 to 28.7.2023
5.	Dr. B.Ganguly, DMO	SC(IRFM).	18.9.2023 to 23.9.2023
6.	Dr. Ankit Tulsian, ADMO	NAIR / VADODARA.	09.10.2023 to 13.10.2023
7.	Dr. Rishabh Tripathi,ADMO	NAIR / VADODARA.	20.11.2023 to 21.11.2023.
8.	Dr. S.Sengupta,ACMS/G	Gurugram(Haryana)	22.11.2023 to 26.11.2023.
9.	Dr. Madhuri Chittaru,DMO	ICF(IRAGOL)	08.12.2023 to 09.12.2023.
10.	Dr. Anurag,DMO	ONC/MB	09.3.2024 to 10.3.2024.

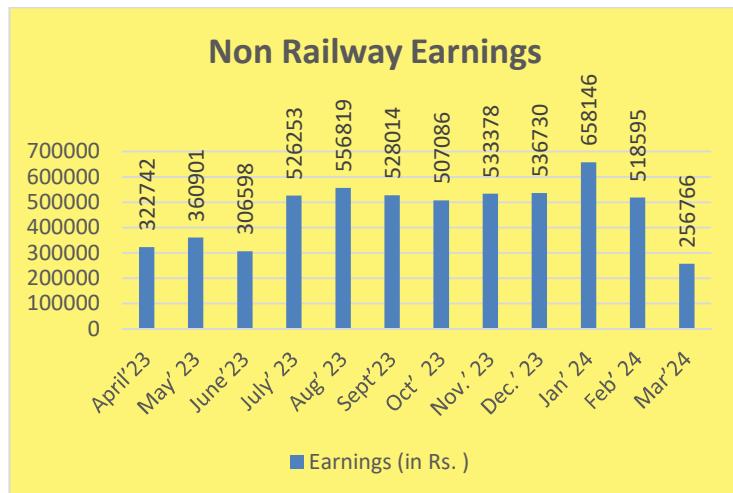
### 8.10 Diagnostic investigations conducted in Pathology lab:

Months	Pathlab(nos.)
Apr'23	36796
May' 23	39975
Jun'23	32658
Jul' 23	43139
Aug.' 23	44995
Sep'23	35970
Oct.' 23	28833
Nov.' 23	28398
Dec.' 23	24814
Jan.' 24	27813
Feb.' 24	28710
Mar.'24	30714
<b>TOTAL:</b>	<b>402815</b>



### 8.11 Non Railway Earnings:

Month	Earnings (in ₹)
April'23	322742.00
May' 23	360901.00
June'23	306598.00
July' 23	526253.00
Aug' 23	556819.00
Sept'23	528014.00
Oct' 23	507086.00
Nov.' 23	533378.00
Dec.' 23	536730.00
Jan' 24	658146.00
Feb' 24	518595.00
Mar'24	256766.00
<b>Total</b>	<b>5612028.00</b>



## **CHAPTER IX**

### **SECURITY**

#### **9.1 Chittaranjan, a protected area:**

Chittaranjan Township was declared as protected Township under Government of West Bengal's Order No.871-P dated 06.02.1971. By this order, Security Commissioner/Railway Protection Force have been authorized to grant permission for entry into the CLW Township. For maintaining law and order, there is a West Bengal Police Station headed by an Inspector In-Charge.

#### **9.2 Railway Protection Force:**

The jurisdiction of RPF/CLW/Chittaranjan extends to the entire workshop and Township area of CLW including Pump House at Sidhabari, (over Maithan Dam), and Dankuni Electric Loco Assembly & Ancillary Unit work shop (ELAAU).

Railway Protection Force bears the responsibility to protect and safeguard Railway Property in Workshop as well as in CLW Township. The force discharges its function under the general supervision of the General Manager of CLW who is assisted in this regard by IG cum PCSC/CLW. 01 post of Sr. Security Commissioner (Vacant from 14.04.2023 ) and 01 post of Assistant Security Commissioner (Vacant from 01.08.2023 to 17.03.2024 ) also assisted IG-cum-PCSC/CLW/Chittaranjan. Now only one Assistant Security Commissioner posted at CLW/CRJ. IG-cum-PCSC/CLW was superannuated on 31.03.2024.

Chittaranjan Locomotive Works is spread over an area of 8,98,373 Sq. Meters and total township area is 18.34 sq. Kilometers. The entire area is covered with boundary wall except some parts toward southern side lying on the bank of river Ajay. There are 04 RPF Posts namely :-

- (i) RPF Township Post,
- (ii) RPF Main Shop Post,
- (iii) RPF Traction Motor Post,
- (iv) RPF Steel Foundry Post.

They are responsible for providing basic security to their respective allotted jurisdiction within CLW/Chittaranjan. Apart from above 04 Posts, 01 Unit in the form of Company (RPF A.W. Coy/CLW) is also available and responsible for manning three gates of CLW/CRJ and deployment of Forces in connection with unscheduled duties.

In addition, there are two intelligence branches: - 1. Special Intelligence Branch & 2. Crime Intelligence Branch. There is also a Dog Squad, a Store Branch and a ADM-Cell/Crime Cell. After restructuring, the following Cells also have started functioning: - **(i)** Computer Cell, **(ii)** Sports and Welfare Cell, **(iii)** Security Control & **(iv)** LTM. The Sanctioned and on roll rank wise strength of RPF/CLW/Chittaranjan is as under:-

The Sanctioned and on roll rank wise strength of RPF/CLW/Chittaranjan is as under:-

Rank	IG	Sr.SC	ASC	IPF	SIPF	ASIPF	HC	CT	Driver	Ancll.	Total
Sanctioned strength	-	01	01	15	41	32	118	255	09	28	500
Present strength	01	--	01	13	33	33	113	146	04	17	361
Vacancy	--	01	--	02	08	--	05	109	05	11	140
Excess	01	--	--	--	--	01	--	--	--	--	02

### 9.3 Training:

- Total 260 Nos. (Online training- 21 (Webinar), Offline Training – 239) of RPF officers & staff of CLW undergone refresher course at MDSTI, CDTI, JUDW, JR Academy/Lucknow etc. training during the year 2023-24.
- 330 RPF Personnel have participated in the Annual Range Classification at CISF Firing Range/Sidhabari held from 01.02.2024, 02.02.2024, 03.02.2024, 04.02.2024, 05.02.2024 & 06.02.2024.

### 9.4 Crime against railway property:

All the cases reported have been registered and proper follow up action has been taken in each case. Crime Figure of CLW/ Chittaranjan for the period 2021-22, 2022-23 & 2023-24 is as under: -

#### 9.4.1 Theft of railway materials inside workshop area

(Value of Property in Rs.)

YEAR	No. of Cases		Stolen	Recovered	Arrested		
	Registered	Detected			O/S	RE	RPF
2021-22	--	--	--	--	--	--	--
2022-23	01	01	--	750/-	01	--	--
2023-24	01	01	1450/-	1450/-	02	02	--

#### 9.4.2 Performance under RP (UP) Act:

YEAR	No of Cases Registered	Railway Property Recovered (in Rs.)	Arrested		
			O/S	R/E	RPF
2021-22	--	--	--	--	--
2022-23	02	4250/-	04	--	--
2023-24	05	109823/-	05	02	--

#### 9.4.3 Performance under Railways Act:

Year	No of Persons Arrested	Fine Realized (In Rs)
2021-22	119	48500/-
2022-23	147	67200/-
2023-24	226	117100/-

### 9.5 Dog Squad:

There is a Dog Squad available for Detection of explosive and contraband items. It consists of One Sniffer dog namely FIGO which is of Labrador breed. The Kennel is situated near RPF barrack at Simjuri.

## 9.6 Modernization of the force:

As a part of modernization programme following items with the Security Department of CLW:-

1	Xerox Machine	03 Nos.
2	Computer P.C	29 Nos.
3	Printer	25 Nos.
4	Hard Disc Drive	04 Nos.
5	Bar Code Scanner	01 No.
6	Hand held metal detector	43 Nos.
7	DFMD	12 Nos.
8	Camera (Manual)	01 No.
9	Digital Still Camera	03 Nos.
10	Video Camera	04 Nos.
11	Finger print kits.	02 Nos.
12	CDR Software Analysis	01 No.
13	Smart Phone	07 Nos.
14	Television LED	01 No.
15	Inspection Trolley Mirror	05 Nos.
16	Poly Carbonate lathi (105 cm-50, 52.5cm 25):	398 Nos.
17	Fax Machine (all-in-one)	01Nos.
18	PA system	02 Nos.
19	Generator Set	01 No.
20	New portable pump	01 No.
21	High power Britelite torch light	22 Nos.
22	Vehicles Flag 03 nos. for PCSC/CLW	03 Nos.
23	Air Cooler for Barrack	28 Nos.
24	May hand Held Brush Cutting Machine	02 Nos.
25	Tarpaulin	04 Nos.
26	Full Body protection for female	10 Nos.
27	Ceremonial Dress	100 Nos.
28	HFG Poly Carbonate Helmet	72 Nos.
29	Anti Riot Combat Shield	72 Nos
30	NFG Medium Riot Centre Helmet	10 Nos
31	Deep Freezer	03 Nos.
32	Full Body Protector	62 Nos.
33	Inset Killer	06 Nos.
34	Unbanded Wool carpet	05 Nos.
35	Q. Manager	40 Nos.
36	Umbrella	06 Nos
37	Carlton Mattress	15 Nos.
38	Bomb Blanket	01 No.
39	Bomb Basket with trolley :	01 No.
40	03 Seater visitor chair	01 No.
<b>Multi Gym Items</b>		
41	Functional Trainer	01 No.
42	Viva Powder coated stainless steel abdominal	01 No.
43	Viva 04 station Multi Gym	01 No.

44	Fitness belt Exercised	01 No.
<b>Disaster Management Equipment</b>		
45	Waist Coat	15 Nos.
46	30 Watt Emergency Light	05 Nos.
47	First Aid kits	17 Nos.
48	Rain Coat	15 Nos.
49	BPL emergency light	10 Nos.
50	Loud Hailer	16 Nos.
<b>Fire Fighting Items</b>		
51	PVC Bamboo	05 Nos.
52	Venus 7500 Mask	03 Nos.
53	Helmet with Torch Light	02 Nos.

### 9.7 Transportation:

The following vehicles are with the Security Deptt. Of CLW:

1	Toyota Qualis	WB-38 L/0002 (Diesel)	Under process Condemnation
2	Mahindra Bolero	WB-38 AK/5876	On road
3	Maruti Gypsy	WNL 2217	Inspection Car
4	Mini Bus	WB 37C 6409	On road
5	Bullet Hunter 350	WB38BC 0744 of TS Post : WB38BC 0717 of TM Post WB38BC 0718 of MS Post WB38BC 0720 of AW-Coy/CLW WB38BC 0739 of ADW/CLW WB38BC 0713 of MS-Fire/CLW	On road On road On road On road On road On road
6	TVS Apache	WB38AS2144 of TS Post WB38AS2146 of TM PostWB38AS2127 of MS Post WB38AS2134 of CIB/CLW WB38AS2120 of SIB/CLW WB38AS2113 of DQM/LTM/S&W	On road On road On road On road On road On road

Besides above, 04 nos. of vehicles have been hired with the sanction of GM/CLW for night patrolling and effective crime control over Township area of Chittaranjan.

### 9.8 Intelligence:

Proper action for maintenance of security without advance, accurate and verifiable information is impracticable. RPF/CLW has two intelligence gathering machineries in form of:

- i. **Special Intelligence Branch:** - RPF Intelligence Unit/CLW/CRJ to collect/gathers intelligence from different sources in Railways as well as local areas relating to Railways issues like Activities of Trade Union, political Law and Order situation, sabotage, subversive elements and activities of Band organizations, activities of Left Wing Extremists and Terrorist nearby areas in co-ordination with different intelligence agencies viz. IB, SB & LIUs with the courier part. No activities of LWE and subversive reported in and around Chittaranjan. However, close watch is being kept.

During 2023-24 the following activities have taken place at CLW/CRJ premises.

Meetings/gate Meeting	53	Conference	01
Demonstration/Dharna	29	Rally/Processions	06
Bandh	NIL	Strike/Agitation	01
Gherao	02		

- ii. **Crime Intelligence Branch:-** Gathers information about crime and criminals and also conducts searches, raids, arrest and ambushes with a view to control crime..

## 9.9 Staff Welfare:

Last day settlement payment to the retiring staff has already been introduced and is being maintained regularly.

**Compassionate Appointment** – Total 05 cases of Compassionate appointment are pending at present. Further follow up action to dispose of those cases is being taken by the office of PCPO/CLW.

RPF Canteen has been running successfully as a welfare measure to the RPF Staff of CLW.

## 9.10 Good work done by the Security Department:

- a) RPF officers and staff of CLW/CRJ, conducted raid and round 24X7 hrs. in the matter of providing security to Railway property and detecting the case of theft against Railway property and arresting the criminals involved therewith. In this period in question, there was detection of 05 case involved with the theft and recovery of stolen material of CLW and ELAAU/DKAE case and arrest of 05 Outsiders & 02 Rly. Employees.
- b) 196 Nos. Of unauthorized Khatal/Structures were removed with the active assistance of RPF.
- c) Successful recovery of stolen Motorcycle of Railway employee with joint efforts of Local P.S./Chittaranjan.
- d) In order to keep the Railway premises free from undesirable elements RPF officers and staff constantly took necessary efforts like raid, round etc. under the provision laid down in The Railways (Amendment) Act, 2003. In this financial year, total 226 persons were arrested and fine to the tune of Rs.1,17,100/- was realized from those offenders.

## 9.11 Fire Fighting Services:

The fire wing is under Mechanical Department. Some RPF staff having knowledge about fire fighting have been attached with fire Unit.



## **CHAPTER - X**

### **VIGILANCE**

**10.1** The Vigilance Organization of CLW is manned by four Chief Vigilance Inspectors, two Stenographer Gr-I, three ministerial staffs and four group 'C' staff (erstwhile group 'D' posts). It functions under the executive control of Dy. Chief Vigilance Officer with Chief Vigilance Officer at the helm as functional head.

#### **10.2 Complaint disposal:**

<b>Year</b>	<b>Opening balance</b>	<b>Total Complaint received</b>	<b>Disposed otherwise</b>	<b>Investigated</b>	<b>Carry forwarded</b>
2020-21	34	44	26	27	25
2021-22	25	53	15	28	35
2022-23	35	79	57	34	23
2023-24	23	80	45	36	22

#### **10.3 Preventive checks:**

<b>Department</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Accounts	02	03	01	-
Civil Engineering	08	09	13	01
Electrical Engineering	12	11	13	22
Mechanical Engineering	03	04	04	04
Medical	02	03	04	02
Personnel	06	07	05	09
Security	-	01	02	-
Stores	15	14	37	21
S&T	-	-	-	02
Others	-	-	01	02
<b>Total</b>	<b>48</b>	<b>52</b>	<b>80</b>	<b>63</b>

#### **10.4 Position of DAR cases:**

<b>Cases</b>	<b>Gazetted</b>	<b>Non-gazetted</b>	<b>Total</b>
Cases finalized	05	13	18
Cases Pending	02	06	08

#### **10.5 Punishment imposed:**

<b>Punishments</b>	<b>Gazetted</b>	<b>Non-Gazetted</b>	<b>Total</b>
Reduction to lower stage	01	03	04
Censure	02	-	02
Withholding of Pass/PTO	-	03	03
Compulsory Retirement	-	01	01
Cut in Pension	-	-	-
Increment withhold	-	03	03

## 10.6 Administrative Action:

Admn. Action	Gazetted	Non-gezatted	Total
Recorded Warning	02	01	03
Counselling	01	0	01

## 10.7 System improvements:

SN	Problem Detected	System Improvement Suggested
1.	<p><b>Irregularities in delivery of scrap sold on “As is where is basis”:</b> During Investigation, it was found that the material lying under the sold lot of M&amp;P was also being delivered to the purchaser whereas the same was neither included not excluded in the description of sold lot.</p>	As a system improvement, it was suggested to clarify indicate the content of lot offered for sale in DS-8 by custodian as well as in auction catalogue by auction conducting officials. It was also suggested that any items other than whatever in description in mentioned in auction catalogue should be considered as excluded item and it should not be delivered to the purchaser.
2.	<p><b>Casual approach towards maintaining of UVAM portal:</b> During investigation, it was found that status of a firm was not updated in UVAM and the same was pending with an officer who had retired much before.</p>	As a system improvement, it was suggested to counsel all the concerned officials to maintain the UVAM portal with its full sincerity so that such incidence are not repeated in future and status of all the vendors are updated on real time basis.
3.	<p><b>Delay in disposal of Vendor approval request in UVAM.</b> During investigation, it was found that application of a firm was pending for approval for more than 11 months whereas as per the Railway Board’s guideline on this matter, vendor approving agencies shall complete the process, receipt of application of giving developmental vendor status to the vendor within 60 days time. Delay in processing of the case was found at all stages.</p>	As a system improvement, it was suggested for prompt disposal of applications received from vendors for approval and to avoid casual approach as revealed in investigation.
4.	<p><b>Non-rejection of defective item within warranty period:</b> During investigation, it was found that due to improper communication between two shops (Testing shop and assembly shop), one of the loco item was not rejected within the warranty period which benefitted the firm. It was also found that record of material found defective at testing shop within warranty period are not maintained properly.</p>	As a system improvement, it was suggested that material found defective at testing shop during testing to be properly communicated to assembly shop who fits the item in locomotive for further action of warranty rejection. It was also suggested that a register should be maintained at both testing and assembly shop for such rejections.

<p>5.</p>	<p><b>Payment to firm without complete commissioning of the equipment.</b>  During investigation of one of the case, irregularities were found on passing of bill of a firm for a loco item called DPWCS (Distributed Power Wireless Control System) by issuing commissioning certificate without its actual commissioning. As per payment terms in PO, <i>80% to be made against inspection certificate and receipt challan duly certified by the consignee towards receipt of correct quantity and quality of material and 20% to be made after successful commissioning on the locomotive.</i> In this case, Vigilance Investigation revealed that part commissioning of equipment was done at CLW and part commissioning was done at different Zonal Railways. Thus, as per payment tem in PO, firm should have been paid 20% balance payment after complete commissioning at different zonal railways but the firm was paid 20% payment after only part commissioning at CLW by issuing commissioning certificate.</p>	<p>As a System Improvement it was advised to PCEE to issue a suitable guideline/policy on Payment term to be kept in Purchase Order and issue of commissioning certificate to all concern so that such instances are not repeated in future. PCEE has issued instruction on the matter and has advised to keep payment term in purchase order of DPWCS as <i>“15% after installation and commissioning at CLW and 5% after commissioning at the Railway with submission of commissioning certificate by the concerned Railways.”</i></p>
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**CHAPTER – XI**  
**GENERAL ADMINISTRATION**

**11.1** The General Administration Department is headed by Senior Deputy General Manager. He is assisted by Dy. General Manager & CPRO, Asst. Dy. General Manager and Public Relation Officer.

The General Administration department of CLW deals in all Public Relation matters, Estate Matters, Revision of Schedule of Power, Arbitration cases, Parliamentary Questions, MP/MLA References, and other miscellaneous works.

**11.2 Parliamentary Questions during 2023-2024:**

SN	Particulars	No. of Questions Received	No. of Replies Sent
1	Parliament Questions	11	11

**11.3 MP/MLA References during 2023-2024:**

SN	Particulars	No. of Questions Received	No. of Replies Sent
1	MP/MLA References	NIL	NIL

**11.4 Status of Arbitration Cases during 2023-2024:**

No. of Cases as on 01.04.2023	New Cases added during the year	No. of Cases awarded during the year	No. of cases pending on 31.03.2024
04	03	06	01

**11.5 License fee recovery from stall/plot etc. during 2023-2024:**

SN	Particulars	Amount
1	Total Collection	Rs. 1,21,96,000/-

**11.6 Earnings from Rest Houses during 2023-2024:**

SN	Particulars	Amount
1	Earnings from Rest Houses	Rs. 9,99,725/

### 11.7 Execution of Agreement/Contract with various agencies:

SN	Particulars
1	Renewal of Lease agreement with SBI main branch & Staff Barrack .
2	Renewal of Lease agreement with Bank of India Chittaranjan branch .
3	Earning from Electric Crematorium (Agreement) for FY 2023-24.
4	Earning Contract from Logistic Hub (Contract) for FY 2023-24.
5	Earning from Licensing of Cycle Stand at KG Hospital (Agreement) for FY 2023-24.
6	Booking of Air Ticket for CLW Officers on official account 22.07.2023 to 21.07.2028
7	Hiring of Cab & Taxi Service for SDGM on monthly basis .
8	Engagement of 02 Nos. Attendant in lieu of TADK at GM's Bungalow & Camp office .
9	Engagement of 01 No. of attendant in lieu of TADK at Dy.CVO's Bungalow.
10	Engagement of 01 No. of attendant in lieu of TADK at Secy to GM's Bungalow.
11	Engagement of 01 No. of attendant in lieu of TADK at Dy. GM's Bungalow.
12	Lease Agreement with SBI/Loco Branch.

### 11.8 Other Activities:

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SN	Particulars	Amount
1	RMC Collection for buses plying in Chittaranjan Area	Rs. 1,56,800/-
2	Fine collected from shopkeepers for single-use plastic	Rs. 6,000/-

- Routine Correspondence with Railway Board was done in a regular manner whenever the data sought for by the Railway Board, viz. Environment Sustainability Report, Import Content in materials for compilation of Indian Railway Yearbook 2022-23, Data in connection with Material for Indian Railway Annual Report & Accounts and Indian Railway Yearbook, Standard Note as on 31.03.2023, Annual Narrative Report for the year 2022-23 was compiled based on the data received from various departments and was uploaded in CLW Website.
- Arrangement of Election for Vice Wardens and Street Members of all area committees of CLW.
- Activities Related to Swachh Bharat Mission, viz, collection of data and preparation of Reports of special Cleanliness drives as per the directives of Railway Board from time to time, preparation of regular reports are undertaken.

- Preparation of Budget estimate, Revised Estimate for expenditure of the year under departmental Code 81. This office puts utmost effort in collection of data, preparation of Budget estimate and revised estimate for departmental code 81.
- Paper works for sanction of awards for awards declared by GM/CLW during Republic day function, Independence day function and also Cash Award declared by GM/CLW during different occasion and function in CLW.
- All Public Relation activities which includes co-ordination with the printing and electronic media.
- Eviction of unauthorized structure in CLW Township: Removal of 137 nos. unauthorized structures till date during F/Y 2023-24.
- Maintenance of CLW website in co-ordination with different departments.
- Co-ordination with Civil Authorities.
- Making all arrangements for meeting in the Administrative Meeting room during VVIP/VIP visits in CLW. This office takes active part in organizing meetings during the visit of high officials and other prominent dignitaries in CLW.
- Arrangement Cash Imprest for Secy to GM, DGM, Processing of Tea Bill for GM, PCPO, DGM and Dy.CPO(G&A).
- Allotment of Bungalows to officers.
- Booking of Officers' Rest House
- Booking of Subordinate Rest House.
- Booking of institutes and Community halls.
- Arrangement of Contact for hiring of vehicles during administrative visit.
- Temporary Licensing of Land and religious purposes fair etc.
- Allotment of quarter to other Central Govt. / State Govt. / Private Institutions connected with working of Railways.
- Close co-ordination with the schools for decision making regarding day to day working of schools.
- Policy for admission of students.
- 136 unauthorized structures in CLW township have been demolished under PPE Act.

## **CHAPTER – XII**

### **PUBLIC RELATIONS**

#### **1.1 General:**

Public Relation organization of Chittaranjan Locomotive Works made all efforts to project the image of Indian Railways in general and CLW in particular with full utilization of the National Press and other available media during the period from April, 2023 to March, 2024.

#### **12.2 Ceremonies & events:**

- The 132nd Birth Anniversary of Bharat Ratna Dr Bhim Rao Ambedkar was observed in Chittaranjan Locomotive Works (CLW) on 14th April, 2023.
- A meeting of the Raj Bhasha Implementation Committee for the year 2023 was held on May 22nd at CLW.
- 9th International Day of Yoga 2023 was joyfully celebrated at Chittaranjan Locomotive Works (CLW) on 21<sup>st</sup> June, 2023.
- The 77th Independence Day was celebrated in Chittaranjan Locomotive Works (CLW), on 15<sup>th</sup> AUG.2023 with full patriotic fervour.
- Sadbhavana Divas was observed in Chittaranjan Locomotive Works (CLW) in the Administrative office foyer on 18<sup>th</sup> AUG.2023.
- Swachhta Pakhwara observed in CLW from 16<sup>th</sup> Sep.2023 to 2<sup>nd</sup> Oct.2023.
- CLW Marks Mahatma Gandhi's Anniversary with Swachhta Pakhwada Culmination on 2<sup>nd</sup> OCT.2023.
- Vigilance Awareness Week is being observed in Chittaranjan Locomotive Works (CLW) from 30th October to 5th November 2023.
- Birth anniversary of Deshbandhu celebrated in CLW on 5<sup>th</sup> NOV.2023.
- MahaparinirvanDiwas commemorating the death Anniversary of Bharat Ratna Dr. Bhim Rao Ambedkar was observed in Chittaranjan Locomotive Works (CLW) today, on 6th December 2023.
- National Voters Day observed in Chittaranjan Locomotive Works (CLW), on 25<sup>th</sup> JAN. 2024.
- The 75th Republic Day was celebrated with patriotic fervor in Chittaranjan Locomotive Works (CLW) on 26th January, 2024.
- RPF Chittaranjan Locomotive Works (CLW) convened a Suraksha Sammelan at the TTC Auditorium in Chittaranjan, On 12th February 2024.
- The 58th Annual Flower & Vegetable Show 2024 has been organized from 17th and 18th Feb. 2024 at the Nursery (Horticulture) premises near Hill top in Chittaranjan Locomotive Works.
- CLW Celebrates International Women's Day 2024 with the Theme "Inspire Inclusion" on 08<sup>th</sup> March 2024.

#### **12.3 Important visitors:**

- Shri Vijay Pratap Singh, Additional Member (Traction) Railway Board, visited Chittaranjan Locomotive Works (CLW) on 17 October 2023.

## 12.4 Press releases:

- 92 Press Releases were issued by the PR department along with press briefing at regular intervals, to disseminate information of the activities/events of CLW during April-2023 to March-2024.

## 12.5 Coverage of Press Release:

- KOLKATA/ASANSOL/ SILIGURI:- The Times of India/ Kolkata –08 news items,–The Echo of India/ Kolkata – 55 news items, Morning India/ Kolkata- 63 news items, Arthik Lipi/ Kolkata- 03 news items, Ei Samay/ Kolkata – 02 news items,–Sanmarg/ Kolkata -10 news items,–Dainik Vishwamitra / Kolkata -22 news items, Info India/Kolkata-74 news items, Parikhit/Kolkata-59 news items, The Statesman/Kolkata-08 news items. Banga Express/Asansol-10 news items,–Bharat Mitra/Kolkata- 16 news items, Darpan of India/Kolkata- 49 news items,–Samagya/Kolkata-26 news items, Prakash/Kolkata- 67 news items, Arthik Dhara/Asansol-31 news items, Prabhat Mantra/Kolkata-17 news items,–Prabhu Rashtra/Kolkata-02 news items, Chhapte Chhapte/Kolkata-14 news items, Bharat Mitra/Kolkata-16 news items, The Indian Express/Kolkata-07 news items,
- NEW DELHI/JAIPUR/RAIPUR/Jhansi: - Mahanagar Times/Jaipur- 26 News items, Impressive Times/Delhi-03 news items. Urdu Daily Hamara/Delhi-05 news items,
- DEOGHAR/RANCHI/ DHANBAD/Dumka:- Dainik Bhaskar/Dhanbad-59 news items, Dainik Jagran/Dhanbad-71 news items, Hindustan/Dhanbad-54 news items,–Indian Punch/Deoghar-75 news items, Prabhat Khabar/Deoghar-68 news items,–Bihar Observer/Dhanbad-41 news items, Ajj/ Dhanbad-06 news items, Ganadesh/Dhanbad-05 news items, Prabhu Rashtriya/Dhanbad-09 news items, Subh Upkar/Dhanbad-03 news items,

## 12.5 Publications:

### English Magazines:

- The Indian Railway Magazine in its April, 2023 issue carried out “International Women’s Day 2023 celebrated in CLW” (with colour photograph) & “CLW administrative Building Received ‘IGBC Green Existing Building Gold Rating (with colour photograph)’”.
- The Indian Railway Magazine in its May-June 2023 issue carried out a Special Article named “The Rise of CLW: from Loco Building Factory to a World-Renowned Locomotive Manufacturer (with colour photographs)”.
- The Indian Railway Magazine in its August, 2023 issue carried out “100<sup>th</sup> Locomotive of FY 2023-24 Flagged off by GM(with colour photograph)”.
- The Indian Railway Magazine in its September, 2023 issue carried out “CLW Manufactured 200 Electric Locomotive in 112 Working Days (with colour photograph)” & “350<sup>th</sup> Electric Locomotive Flagged off from ELAAU Dankuni unit of CLW (with colour photograph)”
- The Indian Railway Magazine in its October,2023 issue carried out “CLW Manufactured 250 Locomotives in 134 Working Days (with colour photograph)”.
- The Indian Railway Magazine in its November,2023 issue carried out “CLW Achieved Milestone: 300<sup>th</sup> Locomotive of FY 2023-2024 Flagged off (with colour photograph) .



- The Indian Railway Magazine in its December, 2023 issue carried out “Additional Member (Traction) Railway Board visited CLW (with colour photograph)” .
- The Indian Railway Magazine in its January, 2024 issue carried out “CLW’s Remarkable Feat - 400<sup>th</sup> Locomotive Flagged off (with colour photograph).”
- The Indian Railway Magazine in its March,2024 issue carried out “Latest WAG-9 HC Twin Locomotive (with colour photographs)” & “CLW Turned out 487 Electric Locomotives in the FY 2023-24(with colour photographs)”.

### **Hindi Magazines:**

1. भारतीय रेल पत्रिका हिंदी मासिक पत्रिका के अप्रैल 2023 के अंक में "चित्तरंजन रेल इंजन कारखाना में विशेष समारोह का आयोजन" शीर्षक के साथ समाचार प्रकाशित हुई (1 रंगीन तस्वीर सहित), चिरेका वेस्ट ब्लॉक को मिला ग्रीन एक्जिस्टिंग बिल्डिंग गोल्ड रेटिंग (1 रंगीन तस्वीर सहित)।
2. भारतीय रेल पत्रिका हिंदी मासिक पत्रिका के मई जून 2023 के अंक में "लोको बिल्डिंग फैक्ट्री से विश्व प्रसिद्ध लोकोमोटिव निर्माता तक के स्वर्णिम सफर का साक्षी चिरेका "शीर्षक के साथ समाचार प्रकाशित हुई (32 रंगीन तस्वीर सहित)।
3. भारतीय रेल पत्रिका हिंदी मासिक पत्रिका के अगस्त 2023 के अंक में "चिरेका निर्मित 100वें रेल इंजन को किया गया खाना "शीर्षक के साथ समाचार प्रकाशित हुई (01 रंगीन तस्वीर सहित), श्री देवी प्रसाद दाश ने चिरेका के नए महाप्रबंधक का संभाला पदभार (01 रंगीन तस्वीर सहित)।
4. भारतीय रेल पत्रिका हिंदी मासिक पत्रिका के अक्टूबर 2023 के अंक में "चिरेका ने किया 200 मोटराइज्ड बोगी लोको सेट का निर्माण"शीर्षक के साथ समाचार प्रकाशित हुई। (01 रंगीन तस्वीर सहित)।
5. भारतीय रेल पत्रिका हिंदी मासिक पत्रिका के दिसंबर 2023 के अंक में " रेलवे बोर्ड के अपर सदस्य, कर्षण ने चिरेका का दौरा"शीर्षक के साथ समाचार प्रकाशित हुई (01 रंगीन तस्वीर सहित)।, "पुरस्कृत इंजन की संक्षिप्त जानकारी"(1 रंगीन तस्वीर सहित), देश बंधु लोको पार्क चिरेका में अमृत डिजिटल गैलरी का महाप्रबंधक ने किया लोकार्पण "(1 रंगीन तस्वीर सहित) ,"चिरेका में ओपन जिम का शुभारंभ" (01 रंगीन तस्वीर सहित)।
6. भारतीय रेल पत्रिका हिंदी मासिक पत्रिका के फरवरी 2024 के अंक में "चिरेका में तनाव प्रबंधन कार्य शाला आयोजित"शीर्षक के साथ समाचार प्रकाशित हुई (01 रंगीन तस्वीर सहित), चिरेका में गोल्फ टूर्नामेंट आयोजित, (01 रंगीन तस्वीर सहित)।
7. भारतीय रेल पत्रिका हिंदी मासिक पत्रिका के मार्च 2024 के अंक में "रेल इंजन तकनीक में चिरेका ने जोड़ा नया अध्याय"शीर्षक के साथ समाचार प्रकाशित हुई (01 रंगीन तस्वीर सहित), "चिरेका का सर्वश्रेष्ठ प्रदर्शन 487 इलेक्ट्रिक लोकोमोटिव का उत्पादन कर रहा नया इतिहास", (01 रंगीन तस्वीर सहित)।

## **CHAPTER-XIII**

### **RAJBHASHA**

#### **13.1 General:**

Chittaranjan Locomotive Works is situated in West Bengal, a non-Hindi speaking area which falls under region 'C' as per the official languages (use for the official purpose of the Union) Rules, 1976 (as amended, 1987).

#### **13.2 Organization of Rajbhasha Vibhag:**

Now, in CLW, Hindi Organization is performing its functions under the supervision of Mukhya Rajbhasha Adhikari cum Principal Chief Mechanical Engineer and Rajbhasha Adhikari. The sanctioned staff strength of Rajbhasha Department is as follows :-

S. No.	Designation	Sanction Post	On Roll	Vacant
1.	Rajbhasha Adhikari	01	00	01
2.	Senior Translator	04	03	01
3.	Junior Translator	07	02	05

At present there are seven posts lying vacant. Process is going on to fill up the vacancies.

#### **13.3 Function of official Language Implementation Committee:**

An official Language Implementation committee (OLIC) runs under the chairmanship of General Manager which quarterly reviews the progressive use of Hindi in CLW. During the year four meetings of OLIC were organized. Efforts were made to achieve the target fixed for the progressive use of Rajbhasha in CLW/Chittaranjan as per Annual Programme.

#### **13.4 Inspection:**

Rajbhasha Adhikari with Senior Translator and Junior Translator conducted periodical inspections in different offices of CLW Administration with a view to accelerating the implementation of Official Language Act 1963 and Rules 1976.

#### **13.5 Documents issued under section 3(3) of official Language ACT - 1963(As amended 1967):**

During the year 2023-24, 9702 nos. of documents were issued in diglot form, the percentage of which was 100%.

#### **13.6 Reply of letters received in Hindi:**

During the year 2023-24, 552 communications, such as applications, appeals, letters etc. were received in Hindi. Out of it, 292 were replied in Hindi and the rest not required.

### **13.7 Use of originating Hindi Letter:**

Efforts were continued to encourage the staff of CLW to originate official correspondence in Hindi. During the period 2023-24, 7076 letters were originated and out of these 4368 letters were issued in Hindi for all the regions. Therefore, the percentage of originated Hindi letters is 61.72%.

### **13.8 Hindi Training:**

During the year, 58 staff in Hindi Praveen, 33 staff in Hindi Pragya and 79 staff in Hindi Parangat and 29 staff in Hindi Typing have been imparted training. Thus a total number of 199 staffs have been trained during the year 2023-24.

### **13.9 Celebration of Hindi Pakhwara:**

The Rajbhasha Pakhwara for the year 2023-24 was celebrated from 20.09.2023 to 29.09.2023. During the Pakhwara various Programmes and competitions were organized, such as :-

- Hindi Quiz Competition organized on 20.09.2023 for officers in meeting room of Design & Development Center/CLW/CRJ.
- Hindi Dictation Competition organized on 21.09.2023 for non-Hindi speaking employees in CLW/CRJ, Store/HWH & ELAAU/Dankuni Office.
- Hindi Noting and Drafting Competition organized on 22.09.2023 for both Hindi and non-Hindi speaking employees/officers (upto J.A. Grade) in Mahakavi Tulsidas General Library of GM Office/CLW/CRJ.
- Hindi Slogan Competition was organized on 22.09.2023, for Hindi and non-Hindi speaking employees/officers (up to JA grade) in Mahakavi Tulsidas General Library of General Manager's Office.
- Hindi typing competition on computer was organized on 23.09.2023, in the Technical Training Center for Hindi and non-Hindi speaking employees/officers.
- Swarachit Hindi Kavya Path Competition organized on 25.09.2023 for CLW employees.
- Hindi Quiz Competition organized on 26.09.2023 for employees in GM Office/CLW/CRJ.
- On the occasion of the closing ceremony of the Rajbhasha Pakhwara, 2023, issue 41 of Chireka's in-house magazine Ajay Dhara was released by the General Manager/Chireka and prize distribution was organised.
- Cultural program and prize distribution were organized on the occasion of closing ceremony of Rajbhasha Pakhwada, 2023 on 29.09.2023 at Badhwar Hall of Technical Training Center CLW/Chittaranjan.

### **13.10 Zonal Level Competition:**

During the year 2023-24, Zonal Level Hindi Essay Competition organized on 30.05.2023 and Hindi Elocution Competition and Hindi Noting & Drafting Competition were organized on 01.06.2023 for both Hindi and non-Hindi speaking employees. First awardees of these competitions represented CLW at All India Level meets of these competitions organized by Railway Board.

### **13.11 Celebration of Kavi Sammelan**

During the year 2023-24, Kavi Sammelan was organized on 29.09.2023 at Badhwar Hall of Technical Training Center CLW/Chittaranjan.

### **13.12 Publication of Ajay Dhara Magazine.**

With a view to increasing the progressive use of Rajbhasha in day to day official work and developing up writing talents of Officers and staff of CLW, a Hindi Magazine “*Ajay-Dhara*” is published twice during the year and distributed in and out of CLW.

## LAND MARKS

1947	September	Site for Chittaranjan Locomotive Works located.
1948	March	Construction work started.
1948	April	Workshop Set up.
1950	26 <sup>th</sup> January	Production inaugurated by Smt. Basanti Devi, Wife of Late Chittaranjan Das.
1950	1 <sup>st</sup> November	Namkaran Ceremony of the works by President of India, Dr. Rajendra Prasad, when the first steam locomotive was turned out and flagged off from CLW.
1951	12 <sup>th</sup> February	KG Hospital formally opened by his Excellency Dr. K.N.Katju, Governor of West Bengal.
1952	1 <sup>st</sup> to 2 <sup>nd</sup> March	Prime Minister of India, Pandit Jawaharlal Nehru visits Chittaranjan accompanied by Dr. B.C.Roy, Chief Minister of West Bengal.
1952	21 <sup>st</sup> October	Railway Minister Shri Lal Bhahadur Shastri visits Chittaranjan.
1953	10 <sup>th</sup> October	Dr. Sarvapalli Radhakrishnan, Vice President of India, visits Chittaranjan .
1955	28 <sup>th</sup> November	Visit of their Majesties the King ,Tribhuvan Bir Bikram Shah and Queen of Nepal .
1955	17 <sup>th</sup> December	Visit of their excellencies Mr. N.A.Bulganin and Mr. N.S.Khrushchev from Russia.
1956	14 <sup>th</sup> November	Visit of His Imperial Majesty, Mr. Haile Selassie, Emperor of Ethiopia.
1956	12 <sup>th</sup> December	Visit of Mr. Chou en lai the Prime Minister of People's Republic of China.
1957	13 <sup>th</sup> January	Visit of their Holinesses , the Dalai Lama and the Panchen Lama.
1958	18 <sup>th</sup> March	Visit of Mr. Churu Stoika, Prime Minister of Rumanian People's Republic.
1958	20 <sup>th</sup> November	Visit of Mr. Marcel Roberts, Chief Occupational Safety & Health Division, International Labour Organisation.
1961	January	Steel Foundry set up.
1961	14 <sup>th</sup> October	First CLW built WCM-5 DC Electric Loco "LOKMANYA' commissioned by Pandit Jawaharlal Nehru.
1962	October	Electric Loco Shop Set up.
1963	16 <sup>th</sup> November	First CLW built WAG-1 25 KV AC Electric Loco "BIDHAN" commissioned by Pandit Jawaharlal Nehru.
1967	16 <sup>th</sup> April	Chittaranjan builds its First Traction Motor, the largest in India, at that time.
1968	6 <sup>th</sup> January	First CLW built Diesel Hydraulic Shunter "INDRAPRASTHA" commissioned by Shri C.M.Poonacha, the then Railway Minister.
1972	30 <sup>th</sup> January	First CLW Built WCAM-1 AC/DC Dual Voltage electric Locomotive "Vallabh" commissioned by Shri Sidhartha Shankar Ray, the then Chief Minister of West Bengal.
1980	1 <sup>st</sup> October	First Rajdhani Electric Loco WAP-1 commissioned.
1992	3 <sup>rd</sup> August	1 <sup>st</sup> 5000 hp High Adhesion WAG – 7 Electric Locomotive "SHANTIDAN" christened by Mother Teresa, Missionaries of Charity.
1993	6 <sup>th</sup> April	Last BG Diesel Shunter "VIRAM" of the year and NG Diesel Locomotive "ITP" of the year 1992-93.
1994	23 <sup>rd</sup> January	WAP-1 Electric Loco "PRAGATISHEEL" provided with Hitachi Traction Motor.
1994	27 <sup>th</sup> August	First 5000 hp WAP-4 Passenger Locomotive "ASHOK" flagged off.
1996	13 <sup>th</sup> July	ISO-9001 certification awarded to Loco Works by IRQS.
1996	8 <sup>th</sup> August	ISO-9002 certification awarded to Steel Foundry by IRQS.
1996	14 <sup>TH</sup> Sep	First Modular WAG-7 Loco KARAMVIR Flagged.
1996	27 <sup>th</sup> Dec	First 3 phase 6000 hp WAG-9 Locomotive (CKD/SKD) flagged off from CLW.

1998	14 <sup>th</sup> November	WAG-9, the first CLW built indigenous 3 phase state-of-the-art 6000 hp Freight Electric Locomotive “NAVYUG” inaugurated by the Hon’ble Minister for Railways by Shri Nitish Kumar.
1999	10 <sup>th</sup> January	First batch of 6 nos. of CLW built 1000 hp Traction Motors for WAG-9 inaugurated by Shri K.Balakesari, Member Staff.
2000	24 <sup>th</sup> February	The first CLW built 3-phase traction motor type 6 FXA-7059 for WAP-5 locomotive inaugurated.
2000	10 <sup>th</sup> May	“NAVKIRAN” the first WAP-7 locomotive rolled out of CLW.
2000	17 <sup>th</sup> May	“NAVODIT” the first CLW built WAP-5 locomotive rolled out of CLW.
2000	30 <sup>th</sup> June	“NAVSHAKTI” the first WAG-9H locomotive was rolled out of CLW.
2002	26 <sup>th</sup> April	ISO-14001 certification awarded to CLW by IRQS.
2003	6 <sup>th</sup> April	“NAVCHETAK” the CLW built WAP – 7 type Locomotive flagged off by Hon’ble MOSR(A)Shri A.K.Murti.
2003	2 <sup>nd</sup> & 3 <sup>rd</sup> August	“NAVGHANSHAKTI” the CLW built WAG-9 type locomotive flagged off by ML/RB,Shri S.C.Gupta.
2003	25 <sup>th</sup> Sept.	ISO-9001-2000 certification awarded to CLW for quality Management system.
2004	10 <sup>th</sup> Jan.	“NAVGATI”, the CLW built WAP-7 locomotive flagged off by Addl. ML/RB.
2006	29 <sup>th</sup> July	CLW built new locomotive type WAG-9 & WAG-9H with Satellite Remote Diagnosis System “Dr. Silver” inaugurated by Shri Laloo Prasad, Hon’ble MR.
2007	23 <sup>rd</sup> March	Flagging off of 100 <sup>th</sup> WAG-9 loco “NAVPRAGATI”.
2010	4 <sup>th</sup> October	Inauguration of first fully IGBT based three phase locomotive.
2015	07 <sup>th</sup> Aug	Inauguration of last WAG-7 Shell in CLW.
2017	20 <sup>th</sup> May	900th WAG-9H Loco (31900) flagged off.
2017	1st Jun	1st Electric Loco (31952) WAG-9H with Vacuum toilet & Bio Digester was
2018	16 <sup>th</sup> Jan	ISO-50001 Energy Management System was awarded to CLW.
2018	19 <sup>th</sup> Apr	CLW receives best production unit shield award from Railway Minister.
2018	24 <sup>th</sup> Oct	CLW produces first WAP-5 loco with aerodynamic design capable to run at 200
2018	26 <sup>th</sup> Dec	9800th loco inaugurated in CLW.
2019	27 <sup>th</sup> Feb	New version WAP-7 loco of 160 kmph flagged off .
2019	25 <sup>th</sup> October	Chittaranjan Locomotive Works (CLW) produced 7000th electric locomotives.
2019	14 <sup>th</sup> December	CLW had been adjudged Second by the NECA( National Energy Conservation Award) of BEE ( Bureau of Energy Efficiency) amongst the Railways Production Unit Sector.
2020	13 <sup>th</sup> March	Despatch of 2500th 3-Phase Loco from CLW
2020	25 <sup>th</sup> April	Successful trial of 9000HP ,WAG-9HH loco at 100KMPH
2020	10 <sup>th</sup> May	CLW built WAP-7 loco completes 20yrs
2020	2 <sup>nd</sup> Oct	CLW produced Tejas Express locos for push-pull operation with aerodynamic design capable to run at 160 KMPH
2021	25 <sup>th</sup> Jan	CLW rolled out 7500th electric locomotive
2021	26 <sup>th</sup> October	Interactive Electronic Technical Manual (IETM) launched in CLW built locomotives.
2021	31 <sup>st</sup> Dec	CLW produces record 467 locos in the Calendar year 2021. This is the best ever production figure in any 1 calendar year.
2022	22 <sup>nd</sup> March	CLW conferred with IRIS Certification based on ISO/TS 22163:2017 by DNV Business Assurance Zertifizierung GmbH for Design, Development & Manufacturing of Electric Locomotives etc.
2022	25 <sup>th</sup> March	Dankuni Unit of CLW (ELAAU/Dankuni) has flagged off 250th Locomotive since its Inception in 2014.

2022	31 <sup>st</sup> March	Chittaranjan Locomotive Works (CLW) achieved the highest ever scrap sale of Rs. 21.82 Cr against Railway Board's target of Rs. 18 Cr.
2022	31 <sup>st</sup> March	Chittaranjan Locomotive Works achieved a remarkable accomplishment by producing highest ever 486 Locomotives in Financial Year 2021-22 against the Railway Board's production target of 485 locos.
2022	28th May	Chittaranjan Locomotive Works has been felicitated with Best Production Unit Shield for exemplary performance during the year 2021-22 during the 67th National Railway Week-2022 held on at Bhubaneswar
2022	24 <sup>th</sup> November	Electrical loco Assembly and Ancillary Unit (ELAAU) Dankuni of Chittaranjan Locomotive Works (CLW) has witnessed another history in the making by turning out 300th electric locomotive since its inception in 2014
2023	21st Feb	CLW Administrative Building received prestigious "IGBC GREEN EXISTING BUILDINGS GOLD RATING" by CII.
2023	28th March	CLW Sets New Record by Producing 12 Electric Locomotives in single Working Day.
2023	13 <sup>th</sup> August	Electrical Loco Assembly and Ancillary Unit (ELAAU) Dankuni of Chittaranjan Locomotive Works has scripted history by producing 350 electric
2023	28 <sup>th</sup> September	CLW achieved another milestone by producing 12000th locomotive.
2023	30 September	CLW manufactured Push-Pull locomotives Amrit Bharat trains became operational
2023	31 <sup>st</sup> October	The 1st WAG-9 Twin locos flagged off
2024	31 <sup>st</sup> March	CLW recorded highest ever production figure by producing 580 locomotive in FY 2023-24.

### SALIENT FEATURES AS ON 31.03.24

#### **PRODUCTION**

Number of Electric Locos turned out	580 Nos.
Number of Traction Motor	1980 Nos.
Tonnage cast steel	2333.77 MT

#### **CUMULATIVE PRODUCTION OF LOCOMOTIVES SINCE INCEPTION**

Steam	2351 Nos.
Diesel	842 Nos.
Electric	<u>9077 Nos.</u>
<b>Total</b>	<b>12270 Nos.</b>

#### **FACTORY**

Workshop Area	101.26 Hectare
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#### **STAFF**

GROUP 'A'	87
GROUP 'B'	77
GROUP 'C'	7240
GROUP 'D'	1229
<b>Total</b>	<b><u>8633</u></b>

#### **TOWNSHIP**

Total area	1834.441 Hectares
Length of Road	204.7 km.
Residential Quarters	9,098 nos.
Hospitals	01 no.
Health Units	05 Nos.
Community Halls	08 nos.
Open Air Theatre	01 no.
Cinema Halls	01 no.
Indoor stadium	01 no.
Golf course cum Environment park	01 no.
Football stadium	03 nos.
Markets	08 nos.
Clubs	01 no.
Marriage Hall	01 no.
Institutes	04 nos.
School (Rly.)	06 nos.
Schools (Non-Rly.)	07 nos.
Kendriya Vidyalaya	01 no.
Private Schools	02 nos.
Deshbandhu Mahavidyalaya	01 no.
Technical Training Centre for Trade Apprenticeship	01 no.
Electric energy consumption : (in lakh units/year)	365.73 Lakh KWH



# **Chittaranjan Locomotive Works**

P.O. Chittaranjan Dist: Paschim Bardhaman (W.B.)