



भारत सरकार / GOVERNMENT OF INDIA  
रेल मंत्रालय / Ministry of Railways  
दक्षिण रेलवे / Southern Railway

प्रधानकार्यालय/ Headquarters Office,  
Planning Branch,  
चेन्नै - 600 003/Chennai - 600 003.

No.G.275/WSSR-372021/2020-21

Dated: 31.12.2020.

**DRM / SA**

Sub : Work study to review the Staff Strength at SSE / C&W / ED –  
SA Division.

Ref: (1) SDGM's D.O. letter No.G.275/Annual Prog./2020-21  
dated 11.09.2020.

(2) Sr.DME/SA's letter No. SA/M273/Work study dated 14.09.2020.

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A work study on the above subject was conducted by Headquarters Planning Branch and a report on the same is attached.

As the report is to be finalized within eight weeks, it is requested to take expeditious action and advise this office in this regard.

A copy of the work study report may be given to organized labour.

This has the approval of SDGM.

**(D. JAYARAMAN)**

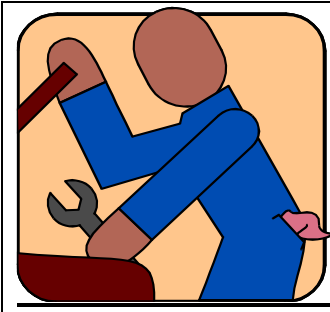
Dy. Chief Planning Officer  
for Senior Deputy General Manager.

Copy to: PCME/MAS

(Encl: One copy of the study report)

The Director (E&R)/Rly.Bd/NDLS for information.

(e - copy of the study report)



**WORK STUDY TO REVIEW THE**  
**STAFF STRENGTH AT**  
**SSE/ C&W/ ED**  
**SA - DIVISION**

**SOUTHERN RAILWAY**

**PLANNING BRANCH**

**(No. G.275/WSSR –372021 / 2020-21)**

**WORK STUDY TO REVIEW THE  
STAFF STRENGTH AT  
SSE/ C&W/ ED - SA DIVISION**

**STUDIED BY**

**WORK STUDY TEAM  
OF  
PLANNING BRANCH**

**DECEMBER 2020**



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(i)  
**ACKNOWLEDGEMENT**

The study team acknowledges the valuable guidance and co-operation rendered by DRM/SA, Sr.DME/SA, CDO/ED, SSE/C&W/ED and Supervisors & staff of SSE/ C&W/ED depot for completing the study in time.

(ii)  
**AUTHORITY**

Annual Program of work studies approved by SDGM/MAS for the year 2020-21.

(iii)  
**TERMS OF REFERENCE**

To review the Mechanical staff strength at the SSE/C&W/ED depot of SA - Division.

(iv)  
**METHODOLOGY**

- a) Collection of data.
- b) Observation of the present system of working.
- c) Interaction with Coordinating officer and Supervisors of the concerned depot.
- d) Analysis of the data collected and assessment of manpower requirement as per yardstick and on Need base.

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**SUMMARY OF RECOMMENDATIONS****RECOMMENDATION :**

**Four** vacant posts of Helper in pay matrix level – 1 (GP Rs.1, 800) may be surrendered and credited to the Bank of surplus posts.

**(4 POSTS)**

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**1.0 INTRODUCTION****1.1 Mechanical department, the basic functions are**

- The maintenance and operation of Locomotives and Rolling stock
- Standardization of designs of Rolling stock and its components through continuous absorption of latest technology in the fields of maintenance and operation.
- Production of locomotives and coaches within the Railways and wagons from the Railway related industry.
- Maintenance and operation of break down cranes and restoration of traffic in case of accidents by removing the infringing rolling stock.
- Management of workshops dealing with overhaul and rehabilitation of rolling stock and their components.

**1.2 ERODE** junction is situated at the bank of Holy River Cauvery. The confluence of Bhavani, Cauvery and Amutha are situated 16 kms away from Erode junction. The Erode junction is surrounded by the hosiery knitting companies, Seshasayee Paper Board and sugar factories. The Erode junction is famous for loading and exporting Turmeric to Foreign countries. The famous temple Lord Chennimalai is situated nearby to Erode Junction. Erode junction is centralized location in south and considered to be a heart of all train routes from North, South, East and West. The Erode junction is centre for connecting the trains from Mangalore, Trivandrum, Kanniyakumari, Trichy, Chennai, and Madurai. Erode C&W depot is a unique in its kind and carried out all activities such as, Coaching maintenance, Pass through Train Examination, Platform Turn Round Trains (PFTR), Watering, Goods Train Examination, Sick line attention etc. Apart from that, an 'A' class ART with 140 T Crane, SPART (SPARME), RCD, EIMWB, BTC are all maintained and utilized as when and required.

**ACTIVITIES CARRIED OUT AT SSE/ C&W/ ED DEPOT:**

1. Rake maintenance at Pitline

2. Rolling stock repairing at Sickline
3. Pass through passenger trains examination at Plat form
4. Goods train Examination at Goods Yard
5. "A" Class ART with 140 T BDDH Crane.
6. Self Propelled Accident Relief Train (SPART)
7. Basic Training centre (BTC)
8. Rail Consumer Depot (RCD) – Fueling Installation Temporary stopped from 16.12.2018 and now Decanding is under process.
9. Electronic In Motion Weigh Bridge.(EIMWB)
10. Booster pump quick water system.

### 1.3 **EXAMINATION OF WAGONS IN YARDS:**

The details of examination being carried out by the Mechanical staff for wagons in yard are as follows:

- General examination
- Checking brake power, break gear & air brake cylinders.
- Roller bearings checking, gauging and oiling
- Preparation and signing of the Brake Power Certificates (BPC)
- Examination of empty wagons, before loading at departure points and after unloading at arrival point. SSE/JE as to ensure after loading that the doors are closed & secured for dispatch of the rake as well as for safety purpose. The focus of yard examination is on the under frame equipment, particularly the brake gear and suspension.

Further Rake maintenance in pit line, Platform activities like PFTR and en-route attention, sick line attention etc, are being carried out at this depot.

- 1.4 With this above, an attempt has been made to study the present system of working and the requirement of man power for this depot is arrived by applying the Railway Board's yard stick and on need base.
- 1.5 Discussions were held with CDO/ED (Coordinating Officer and Unit Head) SSE/C&W/ED (Coordinating Supervisor) and other supervisors & staff. The observations / suggestions made by them have also been taken into consideration in drafting the report.



**CHAPTER – II****2.0 PRESENT SCENARIO****2.1 JURISDICTION OF SSE / C&W /ED**

1. ED - VRPD ( Excl).
2. ED - TUP
3. ED -TP
4. ED - DG ( Excl)

**2.2. ACCIDENT RELIEF TRAIN (ART) BEAT AT ERODE**

REF : CME /MAS Lr No : M/L 43/I/Vol.XIII dt 16/27.11.2012

SECTION	DISTANCE	SECTION	DISTANCE
ED-KRR-DG	121	ED –SA-VRI	194
ED-JTJ	184	ED-IGU-PTJ	94
ED-SA-MTDM	103	ED-CBE-MTP	137

**2.3 STAFF STRENGTH AT SSE/C&W/ED:**

The C&W/ED depot functions under the direct control of CDO/ED with the overall supervision of SSE in-charge. The other SSEs and JEs are deputing in various sections for supervisory duties. As per the DPO/SA's vide his letter No.SA/P.275/Work Study/Comml dated 09.10.2020 the actual staff strength at SSE/C&W/ED is **188** as against the sanctioned strength of **177** (Including Ministerial staff).

As per the SSE/C&W/ED's Sanction, Actual, Vacancy and Excess (S.A.V.E) statement submitted on 19.10.2020, 14 SSE's and 2 JE's (**Total 16**) are actually working against the sanctioned strength of 10 SSE's and 10 JE's (**Total 20**) for supervisory duties. Apart from the above, 99 Technicians, 61 Helpers (Assistants), 7 Ancillary and 6 Ministerial staff (**Total 173**) are working against the sanctioned strength of 101 Technicians, 51 Helpers (Assistants) and 5 Ministerial staff (**Total 157**). The Sanction, Actual, Vacancy and excess statements submitted by DPO/SA and SSE/C&W/ED are enclosed herewith as **Annexure – I**

**NOTE:** The Sanctioned strength of DPO/SA and actual staff strength submitted by SSE/C&W/EDs has been taken for the work study purpose.

*SRSR*

## 2.4 **ACTIVITIES CARRIED OUT AT SSE/C&W/ED DEPOT:**

### **SICK LINE ACTIVITIES**

- Sick wagon attention
- IOH / POH extension
- Wheel changing work
- Analyzing of derailed wagons
- Feeding staff to Platform and yard
- Out station sick wagon attention
- Material collection from MAS ,GOC & JTJ
- Depot lorry transportation on requirement
- Maintenance of Machinery & Plant (M&P) , Tools & Plant (T&P)
- Imprest items
- Maintaining of 'A' Class 140 T Diesel Crane & ART.
- Maintaining of SPART.

### **GOODS YARD:**

- Dealing of Pass through trains
- Checking and dispatching of goods trains
- Sick wagon attention involving Premium/Intensive /CC category
- Rolling- in and rolling -out examination for Pass through trains.
- Temperature of Axle box Feeling
- Issuing of Brake Power Certificate (BPC) for good trains.

### **PLATFORM:**

- Rolling -in and rolling -out examination for Express and Passenger trains
- Issuing BPC for trains at platform
- Attention for Defect coaches
- Monitoring Coach cleaning, watering & washing for PFTR trains.
- Maintaining Booster pump for watering by using high pressure jet.
- Temperature of Axle box feeling of coaches
- Maintaining Electronic In-motion Weigh Bridge at Platform.

### **RAKE MAINTENANCE:**

- Primary maintenance of 4 rakes - Yercaud Express 22650/22649 , Passenger trains : 56100/56101 & 56110/56111
- Supply of linen items for 1st AC passengers of Yercaud Express (Temporary stopped due to spread of Novel Corona Virus **(Covid -19)**)
- Monitoring cleaning, watering of coaches by contract staff
- Disinfecting coaches
- Monitoring Bio -toilets cleaning done by contract staff

- Periodical attention to Tower Van, New Motor Goods (NMG) & Value Parcel Unit (VPU).

#### **RAIL CONSUMER DEPOT (RCD):**

- Fueling of HSD oil to locos. Currently closed and disposal of balance oil is under progress

#### **BASIC TRAINING CENTRE (BTC):**

- Training for Mechanical and other depot staff of SA division.
- Maintaining class room , Model room and Hostel

### **2.5 RAKE MAINTENANCE IN PIT LINES:**

The primary maintenance activities carried out in pit lines for the coaches of passenger train Nos.56100/56101 & 56110 & 56111 and for one super fast Train No. 22650/22649.

<b>Train Name</b>	<b>Train Number</b>	<b>No.of Rakes</b>	<b>No.of Coaches</b>	<b>Total No. of coaches</b>
Yercaud Exp.	22650	4	23	92
TPJ Passenger	56110	4	13	52
Metturdam Pass.	56100	1	7	7

#### **MACHINERIES AND PLANT IN PITLINE:**

- Atlas Capco Air compressor – 370 Cfm .
- Air dryer: Refrigerant type
- Welding plant – 3 Nos +1 (one air cooled, two oil cooled, one portable)
- Hydro jet set up :\_Commissioned on 15.12.2014
- Diesel driven Jumbo truck
- Drilling Machine – Pillar type

#### **IMPROVEMENTS AT PIT LINE**

- New Water hydrants line – two lines covering for all 4 Lines.
- Extension of existing pit line from 17 coach length to 24 coach length.
- Cat walk at one side of New 24 coach pit line
- Welding & 230 V plug points facilitates throughout the pit line length.

## 2.6 **ELECTRONIC IN-MOTION WEIGH BRIDGE:**

Electronic In-Motion Weigh Bridge available at Erode at Road No.6 and is installed by M/s. SCHENCK JENSON Ltd., Ranchi and commissioned on 09.06.2006. Stamping validity period of the weigh bridge was from 03.07.2018 to 02.07.19.

Certificate No 825295 dt 04.07.2017.

SI No JEE 4710

Year of manufacturing: 2006

Capacity - Max 120 T – Min 200kg

Approval No : IND/13/2001/46

## 2.7 **GOODS YARD ROADS :**

Yard Lines : Rd 07 to 18  
 Goods shed Unloading Lines : 16 & 17  
 Sick vehicle grouping : 18  
 ART Stabling line : 19  
 Crane shed line (Covered Shed) : 20  
 Incoming / Through BPC : Rd 07, 08, 09 & 10  
 Train Checking lines : Rd 11,12,13,14 & 15.  
 Trolley path available between : Rd 10-11, 12-13 & 14-15

## 2.8 **ROAD LENGTH:**

Road No	Clear stabling length
9	698m
10	660m
11	660m
12	684m
13	644m
14	619m
15	604m
16	642m

## 2.9 **COACHING YARD:**

ROAD NO	PLATFORM NO	LENGTH(Mtrs)	HOLDING CAPACITY
ROAD 1	VIP LAYBYE	100	4
ROAD 3	PLATFORM 4	472	22

ROAD 4	PLATFORM 3	510	24
ROAD 5	PLATFORM 2	525	26
ROAD 6	PLATFORM 1	550	26

## 2.10 PLATFORM TURNS ROUND (PFTR) TRAINS:

TRAIN NO	DESTINATIONS	ARRIVAL	DEPARTURE	PM
56845/56842	JTJ-ED-TPJ	10.00	16.35	TPJ
56841/56825	TPJ-ED-TEN	11.00	13.05	TPJ
56826/56846	TEN-ED-JTJ	14.25	16.20	TPJ
56109/56112	TPJ-ED-JTJ	19.55	06.20	ED
56101/56100	MTDM-ED-KRR	22.00	05.00	ED

## 2.11 STAFF DEPLOYED

3 SHIFTS

- : i) 07.00 to 13.00 Hrs
- ii) 13.00 to 21.00 Hrs
- iii) 21.00 to 07.00 Hrs

Men deployed : 7 x 3 = 21 staff.

Staff deployed per shift : 7 (2 - Incoming & TPBC Examination, 4-Outgoing Train Examination & Dispatch & 1- Supervisor

RG batch : 7x1 = 7 staff

## LAY OUT OF SICK LINE



No of lines	3	1- 231 m
Holding capacity	11 x3 = 33	2- 231m
Working capacity	7 x 3 = 21	3- 231m

**2.12 DISTRIBUTION OF STAFF AS ON 19.10.2020 AT SSE/C&W/ED :**

Category	Sick Line	PF	Yard	Pit line	Contr act	BTC/ ED	RCD/ ED	Trg	Out station Staff	Total
SSE/JE	3	4	4+1	1+1	1	1	0	0	0	16
Sr.Tech.	6	9	4	5	0	0	0	0	0	24
Tech.I	2	4	13	12	0	0	1	0	1	33
Tech.II	0	4	5	3	0	0	0	1	0	13
Tech.III	9	8	6	2	0	0	0	11	0	36
Assistant	10	12	18	18	0	1	0	2	0	61
Ch.OS	1	0	0	0	0	0	0	0	0	1
OS	2	0	0	0	2	0	0	0	0	4
Jr.Clerk	1	0	0	0	0	0	0	0	0	1
<b>TOTAL STAFF</b>	<b>34</b>	<b>41</b>	<b>51</b>	<b>42</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>14</b>	<b>1</b>	<b>189</b>

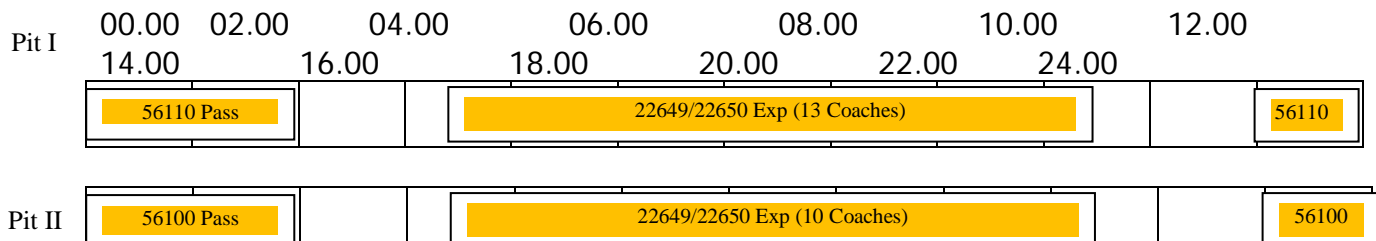
**2.13 MACHINE POWER:**

- i) Welding plant – 4 Nos. ( Rail Weld Air cooled – 2, Oil Cooled – 2 )
- ii) Mobile Welding Plant – 2 Nos. ( ESAB-350 D, Orion - )
- iii) Compressor – 80 Cfm
- iv) MARWA Weighting Jack – 25 T capacity – 5 Nos with control panel
- v) Fork Lift – 3 T
- vi) Hoist – 3 T
- vii) Drilling Machine – Pillar type
- viii) Platform truck – 4 Wheeler – 3 t (Battery operated) 1 No.  
3 Wheeler – 2 t (Battery operated) 1 No.  
TATA Lorry – 10 T cap.
- ix) DG Set 40 KVA

## 2.14 TRAIN EXAMINATION DETAILS

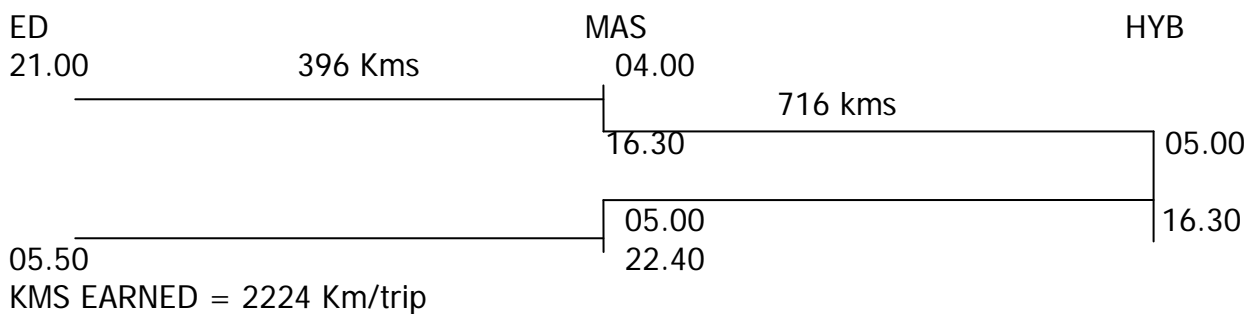
Sl.No	Description	2015-16	2016-17	2017 -18	2018-19
1	Average Premium trains examined/ month	60.83	35.83	51.73	60.60
2	Average intensive train examined /month	42.67	52.17	63.45	46.40
3	Average incoming trains /month	128.17	98.25	153.73	168.60
4	Average on rake sick attention /Month	314.92	297.17	332.55	406.80
5	Average sick detachment/month	299	301	332.55	406.80
6	Average ROH detachment/month	79	40	45.18	44.20
7	Average POH detachment/month	15	30	33.91	33.4
8	Average number of wagons examined /month	3625	3017	3538	2480.60
9	Average time taken for examination/Train	3.42	2.88	4.0	4.0

## 2.15 PIT OCCUPATION CHART /RAKE LINK



## TRAIN LINKS FOR HOLDING TRAINS

### YERCAUD EXP / HYDERABAD EXP LINK



(ED – TPJ) – ((ED – TPJ) – (TPJ- MV) – (MV-KMU) –(KMU-TJ) – (TJ-KMU)-(KMU-MV)-(MV-TPJ) (TPJ-ED)-(ED-JTJ) Pass Link.

JTJ	TPJ	ED	TJ	KMU	MV	Kms
11.35	56110		7.50			141
18.05			56114		21.20	120
				08.03	06115	31
			56115	08.05		39
		18.10	56116	19.25		31
				19.27	06116	39
09.45	56113				06.15	120
16.10						
	56109	20.00				141
12.25	56112	06.25				183
	56111					
15.20	19.45					

Total kms Earned = 1028 Kms

## 2.16 ERODE – METTUR DAM- SALEM- KRR PASS LINK

ED	SA	MTDM	KRR	Kms
05.00	56100	08.25		116
		56103	08.50	41
	09.55			
	17.30	56107		86
			19.30	
	21.50	56108	19.50	86
	06.00	56105	08.10	86
	10.45	56106	08.30	86
	17.30	56102	18.35	41
22.00	56101		19.00	116

Total Kms Earned/Trip = 658 Kms.

## 2.17 SICK WAGONS ATTENDED

Sick	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	NOV	DEC	TOTAL	AVG.
2018	295	397	354	357	366	428	449	434	276	276	4200	350.00
2019	259	294	264	402	423	428	511	230	345	289	4134	344.50
2020	320	339	376	222	304	304	406	446	-	-	3127	347.44



NUMBER OF WAGONS CHECKED IN YARD				
Year	2017	2018	2019	2020
JAN	2605	3993	3177	2218
FEB	2075	4224	3316	2812
MAR	3032	4258	-	0
APR	3288	3918	-	2695
MAY	3397	3777	-	2962
JUN	4195	3836	-	2500
JUL	2693	3821	-	2438
AUG	4099	3157	-	2786
SEP	3691	2801	-	2235
OCT	2699	2999	-	20646
NOV	2945	2697	-	-
DEC	3032	2909	-	-
<b>Total</b>	37751	42390	6493	20646
<b>AGE/MONTH</b>	<b>3146</b>	<b>3533</b>	<b>3247</b>	<b>2581</b>

## 2.18 ENROUTE ATTENTION CARRIED OUT BY SSE/C&W/ED

SL.NO	MONTH	ATTENTION	TOTAL
1	19-Jan	1	
2	19-Feb	6	
3	19-Mar	9	
4	19-Apr	1	
5	19-May	19	
6	19-Jun	6	
7	19-Jul	2	
8	19-Aug	14	
9	19-Sep	14	
10	19-Oct	13	
11	19-Nov	11	
12	19-Dec	5	<b>101</b>
13	20-Jan	11	
14	20-Feb	11	
15	20-Mar	0	
16	20-Apr	0	
17	20-May	1	
18	20-Jun	3	
19	20-Jul	3	
20	20-Aug	4	
21	20-Sep	2	
22	20-Oct	1	<b>36</b>

## 2.19 DEFECTS ATTENDED IN PLATFORM

DATE	T.NO	REASON
1.5.19	KUL/N	BBM
2.5.19	16318	B/*SHOE DAMAGED
8.5.19	13351	HANGER PIN MISSING
13.5.019	16340	BBD
18.5.19	QLN/N	PIN MISSING
18.5.19	6335	SAFTY WIRE BOLT MISSING
23.5.19	16381	HANGER PIN MISSING
1.6.19	PLMD/N	B/BINDING
5.6.19	DG/N	B/BINDING
10.6.19	56713	SAFTY WIRE BOLT MISSING
11.6.19	56712	SAFTY WIRE BOLT MISSING
13.6.19	22642	SAFTY WIRE BOLT MISSING
14.6.19	56826	TB HANGER COTTER MISSING
15.6.19	56845	TB HANGER COTTER MISSING
25.6.19	13351	SAFTY WIRE BOLT MISSING
13.7.19	EY/N	B/BINDING
14.7.19	16688	TB HANGER COTTER MISSING
14.7.19	TUA/N	BBM
17.7.19	DKN/BTPN	B/BINDING
18.7.19	EY/N	SKIDDED WHEEL
26.7.19	16382	DOOR DEFECT
28.7.19	22620	ICU
28.7.19	12163	ICU
29.7.19	12602	FP HOSE OPENING
6.8.19	22616	TB HANGER COTTER MISSING
9.8.19	EY/N	B/BINDING
10.8.19	22642	TB HANGER COTTER MISSING
15.8.19	DKN/BTPN	OIL LEAKAGES
20.8.19	22638	TB HANGER COTTER MISSING
24.8.19	KUL/N	DOOR DEFECT
2.9.19	12616	HELICAL SPG BROKEN
23.9.19	EY/BRN	DOOR DEFECT
25.9.19	KCC/N	A DIMN PRBLEM
27.9.19	12969	B/BINDING
18.10.19	12522	WASH BASIN TAP LEAKING
18.11.19	12601	GD VAN WIRE ROPE HANGING
25.11.19	16340	WIRE ROPE BOLT MISSING
26.11.19	22637	SA END TRUCK ISOLAted
27.11.19	12084	B/BINDING
5.12.19	13352	slr door
7.12.19	16526	fp pipe defect
23.12.19	52319	LUGGAE DOOE DEFECT
28.12.19	18568	LUGGAE DOOE DEFECT

1.1.20	FCOPS	BBINDING
2.1.20	IPN/BTPN	BBINDING
8.1.20	12084	SKIDDED WHEEL
8.1.20	12676	TB HANGER COTTER MISSING
11.1.20	CBF/N	BBINDING
11.1.20	12602	LUGGAE DOOE DEFECT
18.1.20	SKD/CONT	B SHOE DAMAGED
18.1.20	17230	ICCP
20.1.20	E/N	B/BINDING
21.1.20	13351	TB HANGER COTTER MISSING
25.1.20	16315	B/BINDING
29.1.20	12507	BP HOSE PIPE DEFECT
30.1.20	12674	DV RELESE DEFECT
3.2.20	PGT/N	BBM
6.2.20	7117	TB HANGER COTTER MISSING
11.2.20	12511	TB HANGER COTTER MISSING
11.2.20	12511	LUGGAGE DOOR FALLEN
14.2.20	EY/N	DOOR DEFECT
16.2.20	16232	HOSE PIPE LEKAGES
16.2.20	12678	FOUL SMELL
16.2.20	22620	U/USUAL SOUND
16.2.20	56713	COAC OPENENLING
17.2.20	56841	ICV ISOLATED
18.2.20	16315	FB HOSE DISCONNECTED
18.2.20	16232	DISAPLED DOOR DEFECT
19.2.20	13351	S4 SA END FB BENT
19.2.20	12678	BP HOSE PIPE DEFECT
25.2.20	11013	SMOKE SMELL
25.2.20	22643	DV RELESE DEFECT
29.2.20	13351	TB HANGER COTTER MISSING
1.3.20	16616	B/BINDING
1.3.20	16859	BP HOSE PIPE DEFECT
2.3.20	16188	BB LEAKAGES
3.3.20	EY/N	SMOKE SMELL
5.3.20	12625	DV RELESE DEFECT
11.3.20	12677	DOOR DEFECT
15.3.20	22644	HANGER PIN MISSING
19.3.20	12677	TB HANGER COTTER MISSING
19.3.20	22606	FB HOSE DISCONNECTED
19.3.20	FCOPS	COAC DEFECT
9.6.20	OMS SPL	TB HANGER COTTER MISSING
9.6.20	6486	TB HANGER COTTER MISSING
10.6.20	6420	ICCP
14.6.20	EY/N HL	B/BINDING
16.6.20	6454	TB HANGER COTTER MISSING
19.6.20	PGT/N	SKIDDED WHEEL

20.6.20	6404	B/BINDING
20.6.20	EY/N	BSHOE DAMAGED
22.6.20	MDKS/N	B/BINDING
24.6.20	EY/N	AC LEAKAGES
17.7.20	BCN/HL	AC LEAKAGES
19.9.20	AD/N	DV RELESE DEFECT
21.9.20	NLC/N	B/BINDING
21.9.20	DIE/N	SMOKE SMELL
22.9.20	STEEL/N	DOOR OPENED CONDITION
22.9.20	WM SPL	AC LEAKAGES
25.9.20	EY/NHL	B/BINDING
26.9.20	1MT	HOSE PIPE LEAKAGES
26.9.20	2084	D1 INDICATION BD DEFECT
27.9.20	2083	TOILET CLNG
29.9.20	EY/N	B/BINDING
29.9.20	FCOPS	B/BINDING
29.9.20	DKN/BTPN	HAND BK DEFECT
1.10.20	GWT	B/BINDING
4.10.20	2676	B/BINDING
5.10.20	PLKD./N	SKIDDED WHEEL
5.10.20	PLMD/N	B/BINDING
6.10.20	PEML/N	B/BINDING
15.10.20	TNM/N	B/BINDING
15.10.20	TKFS	HAND BK DEFECT
18.10.20	TUP/N	B/BINDING

## 2.20 BREAK DOWN SPECIAL (A-CLASS):

Erode break down special consists of

- ART formation
- 140 T capacity Crane formation and
- SPART

## 2.21 ART FORMATION

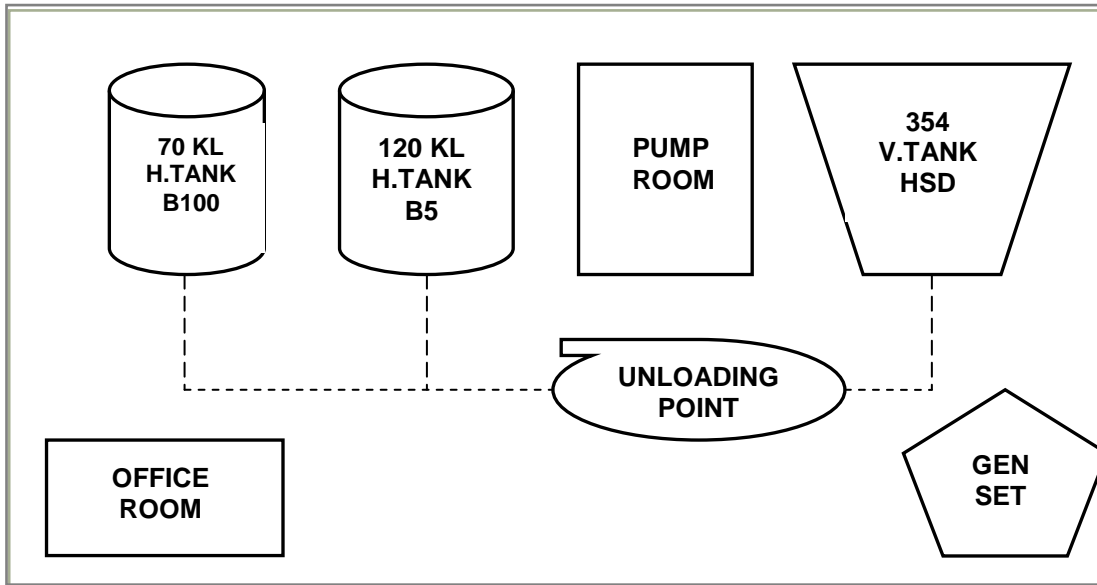
SI No	Rly	Type	Vehicle No	POH Stn	POH DATE	RD	YB	REMARKS
1	SR	RT	90983	PWP	27.03.2014	11-2017	1990	HRE Material Van
2	SR	RT	90920	PWP	21.12.2015	07-2019	1990	MATERIAL VAN
3	SR	RT	85719	PWP	22.09.2015	04-2019	1990	ELECTRICAL & ENGG MATERIAL VAN

4	SR	RT(EL)	8937	GOC	27.03.2013	11-2016	1976	TRD MATERIALS
5	CR	BCNAHS	973322	PWP	24.02.2010	04-2016	1997	ENGG MATERIALS
6	SR	RT /CZR	93604	PWL	24.12.2013	01-2016	1993	KITCHEN CUM GUARD VAN
7	SR	RT	90923	PWP	17.06.2014	12-2015	1990	STAFF CAR
<b>140 T capacity crane formation</b>								
1	IR	DHBD Crane	140512	PAREL	13.04.2013	03-2021	1991	140 TON CRANE
2	IR	BKW	140512	PAREL	13.04.2013	03-2021	1991	HEAVY BALLAST WAGON
3	SR	RT	90911	PWP	13.12.2015	07-2019	1990	CRANE MATERIALS & GUARD VAN
<b>Additional Stock</b>								
3	SC	BRNAHS	160331	KGPW	19.07.2011	02-2016	2000	OHE MATERIALS
4	SECR	BRNAHS	94141 352616	BESCO	18.07.2013	07-2019	2013	ASSEMBLED RAIL PANEL
5	SWR	BRNAHS	94151 364715	BESCO	28.05.2013	05-2016	2013	ENGG RAILS
6	SWR	BRNAHS	94151 364630	BESCO	17.05.2013	05-2016	2013	ST SLEEPERS
<b>SPART</b>								
1	SR	SV	13914	ICF	14.01.14	07-2017	2013	SUPERVISOR VAN
2	SR	RH	13916	ICF	14.01.14	07-2017	2013	MEDICAL VAN
3	SR	TV	13915	ICF	14.01.14	07-2017	2013	TOOL VAN

## 2.22 RAILWAY CONSUMER DEPOT (RCD):

The main activities of this unit is receiving and issuing of consumable diesel. At the depot, three storage tanks are available with the capacity of 70,000, 1, 20,000 and 3, 54,000 liters respectively. The particular of items available and maintained is as follow.

## RAILWAY CONSUMER DEPOT PARTICULARS



With effect from 16.12.20118 the functioning of RCD depot is temporary closed and the decanting of oil is under process.

### 2.23 MISCELLANEOUS ACTIVITIES:

#### BASIC TRAINING CENTRE

- This School came into existence on 01.08.77 at Podanur as C&S Training Centre
- On 22.09.1979, it got its own building with a lecture hall and a model room.
- On 01.02.1983, the name of the School was changed as Institute of Rolling Stock Technology.
- On 30.1.1988, it was renamed as Basic Training Centre.
- From Podanur on 06.02.89, the School was shifted to the IOH shed, at Erode.
- On 05.01.1997, the school was shifted to the present building with spacious model room with a lecture hall and a hostel.

#### COURSES CONDUCTED

- Refreshed Course for C&W Technician for 12 days.
- Initial Course for induction in the C&W Stream for 21 days
- Pre promotional course for 21 days
- Short term course for Drivers on Air Brake. 3 days.
- Short term course for guards on Air Brake. 3 days
- Seminars on important subjects as per the need of the time
- Short term course for C&W Technicians on Air Brake. 3 days
- Short term course for C&W Technicians on CBC. 2 days
- Short term course on Detection of wheel defects for C&W Technician. 2 days
- Familiarization course for C&W /KH. 3 days

- On the spot counseling of Group –D staff
- C&W course for Pro Assistant Loco Pilots (ALP) – 6 days
- C&W trainings for Act Apprentices
- LHB awareness training programme for Loco Pilots

#### **TEACHING AIDS:**

- ✓ Black Board
- ✓ Over Head Projector
- ✓ Computer with Printer

#### **LED Mode:**

- ✓ Working of Air brake

#### **WORKING MODEL:**

- ✓ BRN Wagon working model
- ✓ Air brake working model
- ✓ Empty load box & SAB combined working model
- ✓ Bogie Mounted Brake system IBSA working model
- ✓ ICF All Coil Bogie with transparent Axle box cover

#### **MODEL:**

- ✓ Buffer
- ✓ Brake cylinder
- ✓ Coil Springs
- ✓ Roller Bearing
- ✓ CBC
- ✓ Bogie Mounted Cylinder
- ✓ Dash pot assembly
- ✓ Shock Absorber
- ✓ Angle cock
- ✓ Plain Bearing Axle Box
- ✓ DA Value
- ✓ SAB
- ✓ Tank Wagon

#### **MINIATURE MODEL:**

- ✓ Casnub bogie
- ✓ UIC Bogie
- ✓ KC type Wagon
- ✓ C type Wagon
- ✓ BFR Wagon

**ACTUAL MODEL:**

- ✓ CASNUB Bogie
- ✓ CBC Components
- ✓ RB Components
- ✓ Screw Coupling
- ✓ Box wheel with Bent Axle
- ✓ Box wheel with Spread Rim
- ✓ Air Brake Coach spares
- ✓ Bio Toilet System
- ✓ H Type Coaching CBC Escorts Model

**2.24 STORE ROOM ACTIVITIES:**

At SSE/C&W/ED depot stocked and Non-stocked items are being maintained and the regular activities in store are as follows:

- Planning of requirements/projections of C&W items.
- Procurement of stock & Non-stocked items.
- Accountal and maintaining of daily usages.
- Collection of materials from nominated stores, depots and other stations
- Correspondence, record maintenance, statements etc.
- Disposal of condemnation items
- At the time of work study, the number of Imprest and Non-imprest items available at stores is as follows:

No of Imprest items	260 Nos
No of Non –imprest items	147 Nos
Total M&P items	65 Nos
Total T&P items	306Nos

At present Two Ministerial and Two Technicians **(Total – 4)** are working at the stores section.

**2.25 WATERING HYDRANTS**  
**CARRIAGE WATERING**

<b>TOTAL TRAINS</b>	<b>177</b>
Trains nominated for watering	46
Trains nominated for Rolling in examination only	111
Trains without attention	1
Weekly once train	72
Weekly twice train	15



Weekly thrice train	6
Weekly four days train	4
Weekly five days train	0
Weekly six days train	10
Train nominated for fueling	0
<b>Average trains per day</b>	<b>98</b>

## 2.26 ADMINISTRATIVE/OFFICE WORK:

The Ministerial staff at office are dealing with the staff matters, Attendance, Leave statement, Pass & PTOs, Contract management, Stores, Maintaining details of Wagons, like issuing of BPC, Sick wagons, attending repairs, preparing statement etc. At present One Ch.OS, Two OS and One Jr.Clerk (**Total – 4**) are detailed to look after Stores, sick line/Office duties and 2 OS are detailed to look for contract duties.

## 2.27 CONTRACTS IN PITLINE:

SI No	Work	Agency	Period	Rate
1	Complete Cleaning Washing, watering of coaches including Garbage Cleaning for T.Nos. 22650/12603/12604/22649& 56100/56101	SK Selvam Cleaning Contractor Salem	05.07.18 - 70 days	Rs 9,45,350/-
2	Non Comprehensive linen management for T.No.22650 Yercaud Express .	M/s Premier garments Processing, 29, Govindan Street, T. Nagar, Chennai – 60017	01.11.17 to 31.10.19	Various rates for each Bed Roll item
3	Washing of Ist AC Linens & Curtains	Winner laundry, Tiruppur	01.05.18- 30.10.18	Various Rate for Different works
4	Pest and Roll Control in coaches at CBE,ED,MTP, & Rodent control in Pitline	M/s Huges and Huges Shem Ltd, Flat No.5,R-10 Nehru Enclave, New Delhi 110019	04.11.2017 To 03.11.2020	Various Rate for Different works
5	Fire extinguisher maintenance	M/s. Agni Traders, 208 Kumaran nagar, Railway colony post, Erode – 638002.	13.04.2017 to 12.04.2020	Various Rate for Different works
6	AMC of Bio Toilet	M/S Kala Elangovan, Erode	09.08.18 up to 75 days	Total Value Rs 3,99,967

## 2.27 LIST OF M&amp;P WITH SSE/C&amp;W/ED AS ON 12.07.2019

S/ No	M&P No.	Description of the Items	M/c No.	Old UCNo.	New UCNo.	Allocation	Supplier	Date of Receipt	Condition
1.	III / 1	Air compressor Self Driven ( Engine Driven )	--	---	---	COFMOW	M/s. PAN INDIA CONSULTANTS, HARYANA	07.03.07	Working at BD/ED
2.	III/3	Air compressor – High Pressure 3.5 CFM	GIA – 1782103	--	380227004	--	M/s. Joseph Leslie Drager, MFG PVT LTD, Mumbai	07.04.06 20.07.06	Working at BD/ED
3.	III / 5	Air Drier (Refrigerant type) with accessories suitable for 250 cfm compressor	RO 9m 1993	38012 7006	38022 7005	CAP	Coimbatore Compressor, Coimbatore	16.11.09 11.03.13	Working At Sick Line
4.	III / 7	Atlas capco Air compressor Trailer mounted portable Diesel Engine Driven	PNA 915 462	-	380227007	-	M/s Atlas Copco (India) Ltd , Mumbai -02	19.08.09 24.11.09	Working At Pit Line
5.	III / 9	Air Plasma Cutting Equipment	16EIZ45 R20	Nil	380280001	COFMOW	M/s. Electro Plasma Equipments PVT Ltd, Mumbai	29.09.16 22.10.16	Working at BD /ED
6.	III / 13	Air Dryer Refrigerant 400 CFM		32012 7018	380227009		SSE/CW/MDU	25.11.17	Not Working At Sick Line

7.	III / 14	Compressed Air Dryer	S 350 R	Nil	Nil	--	M/s SPIN AQM TECHNOLOGIES – Coimbatore – 07	02.12.17	Working At Sick Line
8.	III / 15	Air compressor with Air Dryer, Reservoir ( Atlas copco ) 120 CFM	GA 22	31062 7005	Loan Basis	-	SSE/CW/JTJ	28.06.18	Working at Goods Yard
9.	III / 17	Air compressor 300 CFM ( Electric Driven)	SCR000 4143	Nil	380227010	COFMOW	M/s Kirloskar Pneumatic co Ltd, Pune	01.11.18 10.01.19	Working At Sick Line
10.	III / 19	Air compressor 300 CFM ( Electric Driven)	SCR000 4144	Nil	380227011	COFMOW	M/s Kirloskar Pneumatic co Ltd, Pune	01.11.18 12.03.19	Working At Pit Line
11.	III / 21	Air Plasma Cutting Equipment	19FIZ45R01	Nil		COFMOW	M/s. Electro Plasma Equipments PVT Ltd, Mumbai	27.09.19 06.10.19	Working at BD /ED
12.	III/25	Air compressor 300 CFM ( Diesel Driven)	SCR0004628	Nil	380227012	COFMOW	M/s Kirloskar Pneumatic co Ltd, Pune	04.06.19 25.01.20	Working At Sick Line
13.	III / 27	Centrifugal Blower with Motor (Electrical)	168 38	-	-	-	SSE/CWS/PTJ	30.05.90 30.05.90	Working At Sick Line
14.	III/29	Battery charger Single phase ("Rail Weld")	-	-	-	-	ICF, MAS	-	Working Store
15.	III/31	Centrifugal Blower with Motor (Electrical)	-	-	-	-	SSE/CWS/MTPP	08.05.04 08.05.04	Working At Pit Line
16.	III / 33	Booster Pump	Camtech	-	-	LAW	M/s Dronkar &	4.08.201	Working At

		System	Design Watering				Bros Indore – 452 001	9	Platform
17.	III/41	Cleaning plant (Hot & Cold) with hard surface	HDS 695M	Nil	38027 2001	OL WR	M/s Man Machine India Pvt Ltd, Noida 201301	21.10.10 10.12.10	Working At BD
18.	III/ 43	Diesel Operator Generator Kirloskar make (CTS Equipments)	20535 x OTV 36660	-	-	-	Received from CTS Contractor	04.02.13	Working At Sick Line
19.	III / 45	Control Table & Power Pack for HRE	3315 / 3316	Nil	380237012	Project	M/s BEMCO HYDRAULICS LTD, BELGAM – 08	07.11.17	Working at BD/ED
20.	III/ 51	Drilling Machine (Vertical) Praga Tools	-	3404 1001	38021 1001	OL WR	Prage Tools India Ltd, Bangalor	14.07.76	Working At Pit Line
21.	III/53	Drilling machine Vertical Pillar Type	SW 17163V	34041 1003	38021 1002	OL WR	C.W.S/IOH/ED	06.11.93 05.11.93	Working At Sick Line
22.	III/56	Electric Hoist 7.5T	-	-	380139001	CAP	SSE/C&W/CBE	14.09.19 13.04.02	Working At Sick Line
23.	III/59	Fork Lift Swaraj Komatsu Diesel	47.1312/9 724	34042 8004	38022 8002	Project Cap	M/s Punjab Traders Ltd Phase IV Sasnagar, Dist Ropar-160055	23.02.98 20.05.98	Working At Sick Line
24.	III/ 61	Fork Lift – Dsl – Godrej	39011	Nil	380128002	--	M/s Godrej & Boyce MFG CO Ltd, Mumbai	05.11.16 14.11.16	Working at Sick Line

25.	III/62	Fork Lift- Dsl- Voltas	00212	Nil	380228006	CAP	Kion India Private LTD- Pune, 5/4 chandan nagar,	10.08.19 05.09.19	Working at Sick Line
26.	III/63	Fork Lift- Dsl- Voltas	00213	Nil	380228007	CAP	Kion India Private LTD- Pune, 5/4 chandan nagar, pune Nagar road pune- 411014	10.08.19 05.09.19	Working at Sick Line
27.	III / 67	Grinder-Geeco Double Ended Heavy Duty Pedastal	66121	34041 6001	38021 6001	OL WR	M/S Global Engg. Ndls	19.06.66 31.12.66	Working At Sick Line
28.	III / 69	Generator Portable	SK 11157-4H	34048 3001	38028 3001	OL WR	CWS/SRR	09.03.95 09.03.95	Repair at Store
29.	III / 71	Generator Portable Set ( Petrol Driven ) 5 KVA	SH – 7000 – DX	--	---	--	HONDA ELEMEX – SAWAFUJI Generator Made In Japan	11.10.04 11.10.04	Working at BD/MRV
30.	III / 77	Wire Rope Hoist 3 Tons Electrical "INTEK"	51/99	34044 8001	38023 9010	Project CAP	SSE/C&W/MAQ	09.08.04 27.01.05	Working At Sick Line
31.	BD /III 215	HRE (BEMCO )	--		380237013	COFMOW	M/s BEMCO Hydraulic Ltd, Belgaum	03.02.16	Working at SPART
32.	III /79	HRE (BEMCO )	--		380237006	COFMOW	M/s BEMCO Hydraulic Ltd, Belgaum	29.01.11 24.02.11	Working at ART
33.	BD/III 213	HRE ( BEMCO )	--	34123 7004	380237014		SSE/CW/SRR	05.03.16	Working Location Sick Line

34.	III / 83	HRD (PAN INDIA )	--	--	380218005	COFMOW	PAN INDIA CONSULTANTS PVT LTD – HARYANA	11.01.18	Working at SPART
35.	III/87	Jumbo Truck-2 ton(3 wheel) with charger Battery	3077779 CEX -77	--	---	--	SSE/C&W/CBE	01.11.03 16.08.03	Working At Sick Line
36.	III / 89	Jumbo Diesel Industrial Platform Truck with Battery	98102819	34042 9002	38022 9001	Project DF	M/S Josts Engg Co.Ltd Chennai -40	12.02.99 25.03.99	Not Working At Sick Line
37.	III / 91	Jumbo Platform Truck 2Ton capacity Battery Operated 4 Wheeler	07/2010/S FBT-09	--	38062 9001	OL WR	M/s Jaldoot Materials Handling Pvt, Ltd Pune-411 026,	21.08.10 08.09.10	Not Working At Sick Line
38.	III / 95	Jack – Tilting with stopping device for MFD	--	--	--	CAP	M/s Francis Klien, Kolkata	13.10.08 22.10.08	Working at BD
39.	III/ 97	Jack – Displacing with Axle pusher unit for MFD RE-RAILING Equipment	GM OOT	--	--	CAP	M/s Hagen scheidt MFD GMBH & CO K.G.GERMANY	13.10.08 27.10.08	Working at BD

40.	III / 101	Weighting Jack 15 Ton Capacity with cable and Socket (i) 33/26/08/2013 (ii) 32/55/11/2012 (iii) 32/51/11/2012 (iv) 32/53/11/2012 (V) 33/28/08/2013	35,801,805,8 08,807,	34103 8001	38063 8001	CAP	SSE/C&W/CBE	10.03.20	Working at Sick Line
41.	III / 107	Light – Portable Inflatable Emergency Lighting system "ASKA" - 07 Nos		--	--		1. SSE/CW/PGT – 03 2. SSE/CW/TEN – 02 3.SSE/CW/MDU – 02	You could see M&P Ledger	Working at BD/SPART
42.	III / 109	Lorry No TN 30 AU 0048			38024 0003	DRF	M/s TATA Motors, Jamshetpur.	07.08.13 21.08.13	Working At Sick Line
43.	III/ 115	Power Pack Petrol Engine Driven & Control Table (Control Stand)	77 / 4391		380237010	--	M/s BEMCO Hydraulics Ltd, Belgaum – 08	21.06.16 20.07.16	Working At BD
44.	III / 117	Light – Portable Inflatable Emergency Lighting system "ASKA" -			380237011	CAP	M/s ASKA Equipments LTD, New Delhi – 60	20.10.16 05.11.16	Working at BD

		01 No							
45.	III/119	Platform truck-2 Ton (4wheeler)(macneill)	Sl.No:724 Sl.No:725		380229003 380229004	Yard modernization	M/s macneill Engineering Ltd Kolkatha	21.01.19 12.02.19	Working at SL
46.	III/121	Platform truck-2 Ton (3wheeler)(josts)	Sl.No:19040 069 cex69		380229005	Concrete pathways	M/S Josts Engineering Company LTD Thane	10.05.19 06.06.19	Working at Rm
47.	III / 125	Toy Logo	-	-	-	-	CWS/IOH/ED	01.12.97	In Front of the Railway Station ED
48.	III / 127	Test Rig Air Brake with accessories	S. No 79	34044 9002	38024 9002	Project CAP	SSE/C&W/SRR	14.07.02 14.07.02	Working At Pit Line
49.	III / 129	Test Rig Rake	S.No R-50	34044 9002		--	SSE/C&W/CBE	15.03.07 15.03.07	Working At Pit Line
50.	III / 130	Testing Air Brake System ( Test Rig )	S. No: RDSO © B1110		38024 9003	--	M/s. SAI WORKS Kalyan	22.06.16 01.07.16	Working At Sick Line
51.	III / 145	Welding Plant Air Cooled	325 / 11	-	-	--	CE/WE/EWS/ CW/PER	11.10.13	Working At Sick Line
52.	III/146 A	Welding Plant Air Cooled	168	-	-	--	CE/WE/EWS/ CW/PER	18.08.16	Working At Sick Line
53.	III/146 B	Welding Plant Air Cooled	169	-	-	--	CE/WE/EWS/ CW/PER	18.08.16	Working At Sick Line
54.	III / 147	Welding Transformer Rail weld	No.2583/ 3191	34042 0007	38022 2005	OL WR	ICF/ MAS	18.06.81 04.12.82	Working At Sick Line



55.	III / 149	Welding Plant Rail Weld Air Cooler	S. No. 3745	34042 2010	380222008	--	--	4.12.1982	Working At Sick Line
56.	III / 151	Welding Transformer Oil Cooled	Sl.No.237- 1-2000	34042 2013	38022 2012	Project Cap	M/S Electro weldo Industries, Mumbai	29.01.00 12.02.00	Working At Pit Line
57.	III / 153	Welding Transformer Oil Cooled	Sl. No.238 1-2000	34042 2014	38022 2013	Project Cap	M/S Electro weldo Industries, Mumbai	29.01.00 12.02.00	Working At Sick Line
58.	III / 155	Welding Transformer Oil Cooled	Sl. No.239 1-2000	34042 2015	38022 2014	Project Cap	M/S Electro weldo Industries, Mumbai	29.01.00 12.02.00	Working At Sick Line
59.	III / 157	Welding Transformer Oil Cooled	Sl. No.240 1-2000	34042 2016	38022 2015	Project Cap	M/S Electro weldo Industries, Mumbai	29.01.00 12.02.00	Working At Pit Line
60.	III / 159	Welding Plant 350 AMPS Diesel Operator Portable Type "ESAB"	1009051	--	--	--	M/S South India Engg Corporation Chennai 108	08.10.10 20.01.11	Working At Sick Line
61.	III / 163	Welding M/C MMA 200 (Portable) – 3 Nos	---	---	--	--	M/s Kukruja Transformer MFG , CO Delhi -	15.02.13	Working at BD , PL, Store
62.	III/165	Welding plant portable diesel	9508232	---	380122004	OLWR		17.06.96 06.07.96	Working at YD
63.	III / 164	Air Cimpessor ELGI with Motor ( Released )	325	--	--	--	Sr.DEE/ELS/ED	25.06.14	Working at Sick Line

64.	III / 167	Welding Plant 300AMPS (Portable Dsl Opetd)	WG 201857		380222017	--	Evershine Industries, Chennai – 01	31.05.18 09.07.18	Working at Sick Line
65.	III / 169	Inflatable Tent	---	--	--	29417504	Medihelp Health care Pvt. Ltd New delhi	27.03.19 27.03.19	Working at BD

By considering all the above fact, an analysis has been made to review the staff strength at SSE/C&W/ED and the same is discussed in the subsequent chapter.

## CHAPTER - III

### 3.0 CRITICAL ANALYSIS:

- 3.1 **Indian Railway** is the biggest transportation organization owned by the Government of India. When compared to the earnings, the operating ratio is yet to reach in an appreciable manner. To achieve the maximum “economy in operation” and maximize the productivity, rightsizing of man power is the prime tool, since it itself took 43% of the total earnings.

On the view of optimum utilization of man power, the study team applied the Railway Board's “Bench mark/Yard stick norms for the maintenance of wagons and coaching vehicles” as well as to the core activities like IOH/POH, yard maintenance, repairs, attention to sick wagons, platform activities etc. Wherever required, staffs are allowed on need base after conducting the field study and scrutinize the activities.

- 3.2 As per the staff strength submitted by DPO/SA, the actual staff strength at SSE/C&W/ED depot is **188** against the sanctioned strength of **177**. SSE/C&W/ED has submitted the actual staff strength of all categories is **189**. The list of staff strength submitted by DPO/SA and SSE/C&W/ED is enclosed as **Annexure-I**. The study team has taken the sanctioned strength submitted by DPO/SA and actual staff strength submitted by SSE/C&W/ED for calculation purpose to arrive the requirement of manpower for SSE/C&W/ED depot.

- 3.3 **The depot** is carrying out passenger coach maintenance (primary), Platform activities like amenities works of coaching such as interior cleaning watering etc., In platform, Rolling In/out, dispatching through trains, attention to turn round trains, brake test, watering are the activities regularly performed according to the requirement and nomination. Goods wagon examination / maintenance are carried out in Yard and the repair works are carried out in sick line. The other miscellaneous works carried out at this depot are Stores, maintaining 140 Ton Diesel Crane & Accident relief train (ART) and High-speed SPART including machinery and plants (M & P).

### 3.4 **SOME OF THE IMPORTANT REGISTERS MAINTAINED BY SSE/C&W/ED:**

The following registers are maintained by SSE/C&W/ED depot in a unified, printed manner.

- RS 1 - Sick marking / Release details
- RS 5 - Remarks received from Loco pilots for incoming train
- RS 16 - Sick memo
- RS 17 - Register for Fit memo
- Water filling register - Certification for contractor
- TXR's hand book
- TXR's diary
- Log book for department vehicles
- Log book for Generators
- Details of reception of goods trains, Issuing of BPC & Dispatch – Diary
- Under gear / Interior examination register for PFTR trains.
- Interior cleaning for PFTR trains, issuing and certification for contract work.
- Watering register – certification for contractor.
- Break Power certificate Register.

### 3.5 In general the SSE/C&W is carrying out the maintenance/repair works for passenger coaches and wagons are:

- ✓ Pit line rake maintenance (Primary maintenance)
- ✓ Linen management (Temporarily stopped)
- ✓ Cleaning and washing of coaches
- ✓ Watering
- ✓ Sick attention for coaching and goods wagons
- ✓ Platform activities
- ✓ Goods train attention in yard
- ✓ RCD depot etc.

### 3.6 **PIT LINE RAKE MAINTENANCE:**

The normal checking carried out in pit line are,

- Under gear checking/attention
- Brake gear checking / attention with air testing

- Rolling gear checking / attention
- Suspension checking
- Couplers checking / attention
- Schedule maintenance (A& B)
- Interior cleaning
- Amenity attention
- Watering
- Special exercise to prevent Rat, Cockroach, bugs, menace etc.

### 3.7 PRIMARY MAINTENANCE:

#### SUPER FAST AND PASSENGER TRAINS:

Sl. No	Train No	Type	No of coaches	Services	Coaches /day	Type of Coach
1	22649/50	SF	23	Daily	23	ICF
2	56110/11	Pass	13	Daily	13	
3	56100/01	Pass	7	2	2	
<b>Total</b>			<b>43</b>		<b>38</b>	

*As per the Railway Board's letter No.E(MPP)2019/1/12 dated 30.09.2019, (Annexure –II) the revised Yard Stick for Mechanical Staff for Primary Maintenance of ICF/LHB coaches is 0.85 staff per coach with Inter amenity attention to be outsourced. Leave reserve & Rest givers to be provided in addition to the above Yard Stick. This norm does not cover Ministerial staff and Divisional Control Staff.*

By applying the above Yard Stick, the requirement of staff for SSE/C&W/ED for Primary Maintenance of coaches is as follows:

Primary maintenance coaches per day	-	38
Yardstick provision per coach	-	0.85
Requirement of staff of PM (38 x 0.85)	=	32.30
<b>ADD :</b> Rest Giver (RG) 16.66% (32.30 x 16.66÷100)	=	5.38
<b>ADD :</b> Leave Reserve (LR) 12.5% (37.68 x 12.5÷100)	=	4.71
<b>TOTAL</b>	<b>-</b>	<b>42.39 (42 staff)</b>

### 3.8 **PASSENGER TRAINS ATTENTION IN PLATFORM:**

#### **PLATFORM ACTIVITIES:**

As per the revised working maintenance pattern and Rake link booklet issued by Southern Railway, the following activities have to be carried at Platform.

- ✓ Reception and dispatch of pass through trains
- ✓ Rolling IN/OUT examination.
- ✓ Loco changing for operational convenience
- ✓ Platform turn round passenger trains for the attention of sweeping lavatory cleaning etc.
- ✓ Watering of passenger coaches for nominated trains
- ✓ Clean train station (CTS) scheme.

In addition to above, the following maintenance activities are being carried out by SSE/C&W/ED.

- ✓ Electronic In-motion weigh bridge (EIMWB) - situated at platform No.1
- ✓ Railway consumer depot (RCD) - situated near station entrance and supplying fuel to nominated trains in east and west direction of the station. (Temporarily closed)

### 3.9 **REQUIREMENT OF STAFF FOR PLATFORM ACTIVITIES:**

At Platform, Mechanical staff has to attend Platform activities likes Rolling-In/out examination, Cleaning, washing, watering and minor repair attention to en-route turn round trains (PFTR), reception (Rolling-IN) and dispatch attention to all passenger trains.

At SSE/C&W/ED depot for the year 2019-2020, 42 trains covering 669 coaches have been outsourced for Clean Train Station (CTS) and Train Nos.22650, 56110 and 56100 have been outsourced for Internal Cleaning and Washing. The total number of coaches attended for Internal Cleaning and Washing were 8418, 3660 and 336 (Total 12414) respectively.

21. Proposal for extension of trains/services				
TRAINS COVERED UNDER 'CTS TRAIN STATION' SCHEME AT ERODE				
SL.NO.	TRAIN NO	FROM	TO	NO OF COACHES ATTEND
1	12521	BJU	ERS	18
2	22645	INDB	TVC	16
3	22647	KRBA	TVC	18
4	12511	GKP	TVC	16
5	22838	ERS	H TE	13
6	17316	VIKN	VSG	14
7	16565	YPR	MAQ	10
8	17230	HYB	KCVL	17
9	18568	QLN	VSKP	14
10	16318	SVDK	CAPE	13
11	16159	MS	MAQ	17
12	22852	MAQ	SRC	16
13	12688	SRE	MDU	13
14	13351	DHN	ALLP	18
15	17660	SHM	NCI	16
16	22644	PNBE	ERS	17
17	22642	SHM	IVC	16
18	17508	SCL	IVC	18
19	17516	SCL	TVC	18
20	15905	CAPE	DBRG	15
21	12677	SBC	ERS	13
22	16088	SVDK	MAQ	13
23	13352	ALLP	DHN	18
24	12678	ERS	SRC	13
25	16332	IVC	CSMT	18
26	22816	ERS	RSP	17
27	22020	TEN	RSP	14
28	22619	BSP	TEN	14
29	22815	BSP	ERS	17
30	16360	PNBE	ERS	16
31	16331	CSMT	IVC	18
32	12522	ERS	BJU	17
33	22646	TVC	INDB	16
34	22648	TVC	KRBA	18
35	12512	TVC	GKP	16
36	16160	MAQ	MS	18
37	17229	KCVL	HYB	17
38	17616	MDU	KCG	10
39	16382	CAPE	CSMT	17
40	15906	DBRG	CAPE	15
41	22629	DR	TEN	10
42	SPECIAL TRAINS			36
			Total=	669

**As per the Railway Board's (RB) Yard Stick, for Platform return trains nominated for Rolling in Examination plus Clean Train Station etc., for ICF/LHB coaches is 0.2 men per coach.**

It has seen from the previous year records, in a day, an average of 112 trains are passing in Platform of ED in both up & down direction. The activities in platform return trains (coaches) like cleaning & watering including en-route watering, Fire extinguishers etc nominated for Clean Train Station have been outsourced.

**OUTSOURCED ACTIVITIES AT SSE/C&W/ED :**

1. Mechanized Cleaning of Primary Maintenance trains, Watering & Cleaning of PFTR trains, Watering of coaches of pass through trains at ED station and cleaning of depot premises at ED Coaching depot.
2. Pest and Roll control in coaches
3. Comprehensive Maintenance of Bio-Toilet in Erode depot
4. Fire extinguisher maintenance.

At C&W/ED depot, most of the activities covered under Yardstick have been outsourced. The staff required for other activities in platform like Rolling in/out examination, Issuing of BPC for Pass through trains, Axle box feeling, Booster Pump Operation etc. have been allowed on need base and the required staff for these activities are given as follows:

Sl.No.	Activity	No.of Staff	No.of Shift	Requirement of staff
1.	Train Examination – Rolling in/out	4*	3	12
2.	Issuing of BPC	1	3	3
3.	Axle Box feeling	2	3	6
4.	Booster Pump operator	1	3	3
<b>Total</b>		<b>8</b>	<b>3</b>	<b>24</b>
<b>RG+ LR batch</b>				<b>8</b>
<b>Total</b>				<b>32 + 1#</b>

\*One staff at Left side and another one staff at Right Side for UP direction trains and One staff at Left side and another one staff at Right Side for Down direction trains (Total – 4 staff).



# As the bunching of trains is more in night shift, for which one more staff is allowed for night shift.

### 3.10 TRAIN EXAMINATION DETAILS

Year	Average Premium trains examined/month	Average intensive train examined/month	Average incoming trains/month	Average time taken for examination/Train (in Hrs)
2015-16	61	43	128	3.42
2016-17	36	52	98	2.88
2017 -18	52	63	154	4.0
2018-19	61	46	169	4.0
Total	210	204	549	-
Avg. for one month	52.5	51	137.25	-
<b>Avg.per day(÷ 30)</b>	<b>1.75</b>	<b>1.7</b>	<b>4.57</b>	<b>-</b>

From the above data's, the examination of trains is in increasing trend from the year 2016 to 2019. As per the Railway Board's Yard stick, the man hours required for various stocks are as follows:

### 3.11 MAN-HOURS FOR EXAMINATION OF VARIOUS TYPE OF STOCK IN YARD.

Stock	Type of Examination (In Hrs)		
	Terminating	Intensive	Originating
Close Circuit (C.C) Examination (Premium Rakes)	6 man hrs	100 man hrs per rake	10 man hrs
Intensive Examination (End to End running)	6 man hrs	56 man hrs per rake	10 man hrs

The man power requirement based on the number of rakes handled per day as per yardstick is as follows.

#### For Premium rakes maintenance:

No of rakes per day -  $1.75 \times 100 \div 8 = 21.87$  staff

#### For Intensive rakes maintenance:

No of rakes per day -  $1.7 \times 56 \div 8 = 11.90$  staff

#### For Originating rakes maintenance:

No of rakes per day -  $4.57 \times 10 \div 8 = 5.71$  staff

Total number of staff per day ( 39.48 staff) = 40

Add : Rest Giver (16.66%) = 6.66

Add : Leave Reserve (46.66x12.5) = 5.83

Total staff required for Yard activities = 52.49 (Say 52 staff)

As per the data submitted by SSE/C&W/ED, the number of staff detailed for Yard activities on 19.10.2020 are 46 Artizans plus 5 Supervisors (Total -51) and the average time taken for examination of Close Circuit (C.C) rake is three to four hours. As per the Railway Board Yard stick, the time allowed for Close Circuit (C.C) Examination for terminating trains is 6 man hrs and for intensive examination for End to End running Terminating trains is also 6 man hrs. The average time taken by the depot for examination of Close Circuit (C.C) as well as for Intensive Examination for End to End running Terminating trains is 4 hrs with 46 staff artisans, which is below the Railway Board yard stick allowed for examination of Close Circuit & Intensive Examination (End to End running) trains of 6 hrs. On discussion with the Coordinating supervisor, it reveals that the present level of staff detailed for the yard examination for goods trains is said to be sufficient. Hence, instead of applying the railway Board's yard stick, as per the actual utilization, the present **46 staff** (Excluding Supervisors) deputed for yard examination are allowed and the present arrangements may be continued.

### 3.12 SICK LINE ACTIVITIES

The sick wagons detached from the formation were attended for various mechanical repairs like lifting for side bearers, under gear, brake gear repairs, suspension, couplers, doors, etc. As and when required, necessary welding works, Air testing is also being conducted with single Rake test rig. Sick line staff are working in general shift in all the days except Sunday.

At present three sick lines are available to attend the sick wagons. Each line is having 231 m length with covered shed of 50 m length with the holding capacity of 11 coaches and working capacity of 7 coaches.

#### **GOODS WAGONS:**

From the month of Jan to Sep 2020, the total sick wagons attended by SSE/C&W/ED are as follows:

Month	No.of sick wagons attended	Avg.Per day (2 ÷ 30)
(1)	(2)	(3)
Jan	320	10.66
Feb	339	11.3
Mar	376	12.53
Apr	222	7.4
May	304	10.13
June	304	10.13
July	406	13.53
Aug	446	14.86
Sep	410	13.66
Total		104.2
<b>Avg. for 9 months/day</b>		<b>11.57</b>

There is no separate yard stick is available to allow the staff to attend sick wagons. The average number of sick wagons attended by SSE/C&W/ED depot per day is 11.57.

#### **COACH HOLDING:**

At coaching side, the total number of coach holding by SSE/C&W/ED is 152. As per the Railway Board's yard stick, 0.12 men per coach holding have to be allowed for sick coach attention. By Applying the yards stick the requirement of staff to attend the sick coaches are **(152 x 0.12 = 18.24 men)**

NET REQUIREMENT OF STAFF TO ATTEND SICK COACHES is 18.24 Say 18

#### **ACCIDENT RELIEF TRAIN (ART) & BREAK DOWN (BD) SPECIALS:**

One BD special A-Class 140 T crane with ART and SPART are available at C&W/ED depot. As on 19.10.2020, **6+2** staffs have been detailed for maintenance of BD specials. The same strength is allowed to continue. At the time of derailment/Accident, the staff allowed for sick line activities may be utilized.

As on 19.10.2020, 30 staffs were detailed by SSE/C&W/ED to attend the sick wagons/coaches, ART/SPART maintenance. The same strength of staff is allowed for sick line, IOH/POH and for ART/SPART maintenance activities. During the derailment, Accident and movement of ART/SPART, the staff allowed for sick line activities may be utilized. **The net requirement of staff to attend sick line/IOH/POH/BD specials is 30.**

### 3.13 **RAILWAY CONSUMER DEPOT (RCD):**

The Railway Consumer Depot Fueling Installation is closed for all type of activities like filling oil into tank and decanting is stopped from 16.12.2018. Hence, no staff is allowed for RCD depot. But, One Tech Gr.I is nominated to look the depot. He may be withdrawn and the RCD depot may be handed over to the RPF department for security purpose, as the tank and other pipe lines are not yet removed.

### 3.14 **MATERIAL STORAGE / ACCOUNTAL:**

The major activities in stores department at SSE/C&W/ED are,

- Planning of C&W items requirements / projection
- Procurement of stock, Non-stock items and imprest
- Issues to daily usage
- Collection of materials from nominated stores, depot and other stations
- Correspondence, record maintenance, statements.
- Disposal of condemnation.

The required materials for SSE/C&W/ED are collected from General stores depot/PER. 18 Coaches/Wagons were condemned in the year 2018 and 3 Coaches/Wagons were condemned in the year 2019. The disposal of condemned coaches/wagons and the relevant records are maintained at stores section. To look the stores duties, 2 ministerial staff **and 2 Technicians** are detailed and the same strength is allowed to continue for stores activities.

### 3.15 **MINISTERIAL STAFF:**

The Ministerial staff posted at SSE/C&W/ED is looking the duties of staff matters, Attendance, Leave statement, Pass & PTOs, Contract management, Stores, Maintaining details of BPC issued for goods trains, Sick coach/wagon particulars,, record maintaining for repairs attended coaches/wagons and other relevant statements are prepared and send to CDO/ED, Divisional Office/SA. To do the above duties, 6 Ministerial staffs are working against the sanction strength of 5. The distribution of Ministerial staff is, for Stores -2, office – 2 and for contract -2 **(Total -6)**. The sanctioned strength of Ministerial staff for SSE/C&W/ED is only 5 and all the **5** Ministerial staff sanctioned and presently working is allowed and the excess one staff working over and above the sanctioned strength may be redeployed to the needy place.

### 3.16 REQUIREMENT OF SUPERVISORS:

10 Senior Section Engineers (SSE's) & 10 Junior Engineers (JE's) **(Total -20)** supervisors are sanctioned for SSE/C&W/ED. At present 14 Senior Section Engineers and 2 Junior Engineers **(Total – 16)** are working. The requirement of supervisors allowed for the Yard, Pit Line, BTC and Sick line activities are as follows:

Sl. No.	Activity Area	No.of Staff	No.of Shifts	Requirement of supervisors
1.	Yard	1	3	3
2.	Platform	1	3+ 1 (Due to bunching of trains one Additional Supervisor for Night Shift is allowed)	4
3.	Pit line	1	2 (Morning & Evening)	2
<b>Total</b>				<b>9</b>
<b>Add : Rest Giver (RG) (16.66% = 1.44) (SAY 1)</b>				<b>1</b>
4.	Sick Line	1	1 (General)	1
5.	Basic training School (BTC)	1	1 (General)	1
6.	Over-all Supervisor	1	1 (General)	1
<b>Total</b>				<b>13</b>
<b>Add : Leave Reserve (LR) 12.5% = 1.75 (SAY 2)</b>				<b>2</b>
<b>Net Requirement of Supervisors</b>				<b>15</b>

### 3.17 SUMMARY OF REQUIREMENT OF STAFF FOR SSE/C&W/ED:

SL. NO.	ACTIVITY AREA	REQUIREMENT OF STAFF	REFERENCE PARA
1.	Rake maintenance	42	3.7
2.	Platform Activities	33	3.9
3.	Yard Activities	46	3.11
4.	Sick line activities	30	3.12
5.	Material accountal &Store	2	3.14
6.	Ministerial staff	5	3.15
7.	Supervisors	15	3.16
<b>Total</b>		<b>173</b>	

**3.18 SANCTION VS REQUIREMENT:**

<b>Category</b>	<b>Sanction</b>	<b>Actual</b>	<b>Requirement</b>	<b>Surplus</b>
Supervisors SSE/JE	20	16	173	4
Technicians & Ancillary staff	152	167		
Ministerial staff	5	6		
<b>Total</b>	<b>177</b>	<b>189</b>	<b>173</b>	<b>4</b>

**RECOMMENDATION:**

**Four** vacant posts of Helper in pay matrix level – 1 (GP Rs.1, 800) may be surrendered and credited to the Bank of surplus posts.

**(4 POSTS)**

#### **4.0 PLANNING BRANCH'S REMARKS ON CO-ORDINATING OFFICER'S VIEWS:**

The draft work study report sent to the coordinating officer (CDO/ED) through 'e' office on 1.12.2020 and a reminder was also sent on 22.12.2020 to officer his remarks/views on the draft work study report. So far, no reply has been received.

The remarks have to be submitted to the Planning Branch within 15 days from the date of receipt of the draft work study report. Since, no remarks is offered by the Coordinating officer, in order to comply the Railway Boards target for the no.of work study released in this quarter, the report is now released without the remarks of the coordinating officer.

**CHAPTER – V****5.0 FINANCIAL SAVINGS :**

5.1 If the recommendations made in the study report are implemented, the annual recurring financial savings will be as under:

<b>Sl. No</b>	<b>Designation</b>	<b>Pay Matrix Level</b>	<b>No of posts</b>	<b>Money Vaue (Rs.)</b>	<b>Annual Financial savings (Rs.)</b>
1.	Helper	Level -1 G.P. Rs.1,800/-	4	37,450	17,97,600/-
<b>Total</b>			<b>4</b>		<b>17,97,600</b>



## ANNEXURE – I

AS ON 19.10.2020, SANCTION, ACTUAL, VACANT AND EXCESS

## STATEMENT OF C&amp;W/ED - Authority : SSE/C&amp;W/ED

Category	Grade Pay (Rs.)	Sanction	Actual	Vacancy	Excess
<b>SUPERVISORY STAFF (A)</b>					
SSE	4600	13	14	0	1
JE	4200	7	2	5	0
<b>TOTAL</b>		<b>20</b>	<b>16</b>	<b>5</b>	<b>1</b>
<b>ARTISANS STAFF (B)</b>					
Sr. Tech.	4200	14	22	0	8
Tech. Gr. I	2800	44	31	13	0
Tech. Gr. II	2400	27	12	15	0
Tech. Gr. III	1900	22	34	0	12
<b>TOTAL</b>		<b>107</b>	<b>99</b>	<b>28</b>	<b>20</b>
Helpers	1800	76	61	15	0
<b>TOTAL</b>		<b>76</b>	<b>61</b>	<b>15</b>	<b>0</b>
<b>ANCILLARY STAFF (C)</b>					
Sr.Tech./Welder	4200	2	1	1	0
Tech.Gr.I/Welder	2800	0	1	0	1
Tech.Gr.II/Welder	2400	2	2	0	0
Tech.Gr.III/Welder	1900	1	0	1	0
Sr.Tech./Carpenter	4200	1	0	1	0
Tech.Gr.I/Carpenter	2800	0	1	0	1
Tech.Gr.III/Carpenter	1900	1	0	1	0
Tech.Gr.I/Black Smith	2800	1	0	1	0
Sr.Tech/Revit	4200	1	0	1	0
MV.Dvr.Gr.I	2800	1	0	1	0
Sr.C./Dvr.	4200	0	1	0	1
Cr.Dvr. Gr.I	2800	1	0	1	0
MV.Dvr.Gr.III	1900	0	1	0	1
Tech.Gr.I/Painter	2800	1	0	1	0
Tech.Gr.III/Painter	1900	1	0	1	0
<b>TOTAL</b>		<b>13</b>	<b>7</b>	<b>11</b>	<b>5</b>

<b>MINISTRIAL STAFF (D)</b>					
Ch.OS	4600	0	1	0	1
OS	4200	3	4	0	1
Sr.Clerk	2800	1	0	1	0
Jr.Clerk	1900	1	1	0	0
<b>TOTAL</b>		<b>5</b>	<b>6</b>	<b>1</b>	<b>2</b>
<b>GRAND TOTAL (A+B+C+D)</b>		<b>221</b>	<b>189</b>	<b>59</b>	<b>27</b>

**AS ON 9.10.2020, SANCTION, ACTUAL, VACANT AND EXCESS**

**STATEMENT OF C&W/ED**

**Auth: DPO/SA LETTER NO.SA/P.275/WORK STUDY/COMML.**

**DATED 9.10.2020.**

<b>Category</b>	<b>Grade Pay (Rs.)</b>	<b>Sanction</b>	<b>Actual</b>	<b>Vacancy</b>	<b>Excess</b>
SSE	4600	10	13	0	3
JE	4200	10	3	7	0
Sr.Tech.	4200	27	24	3	0
Tech.Gr.I	2800	54	30	24	0
Tech.Gr.II.	2400	7	12	0	5
Tech.Gr.III	1900	13	36	0	23
ASSISTNT	1800	51	64	0	13
Min.Staff	-	5	6	0	1
<b>TOTAL</b>		<b>177</b>	<b>188</b>	<b>34</b>	<b>45</b>

Ans: R/O 21.10. E (MPP) 2019/1/12 dated 30.09.2019.

### 5. Coach Maintenance - Mechanical

Primary Maintenance	ICF/LHB STOCK	0.85/Coach (ICF&LHB) with Interior amenity attention to be outsourced
Terminal attention under RPC-4	ICF/LHB STOCK	0.3 Man/Coach
PF return trains nominated for Rolling in Examination + Clean Train Station etc.	ICF/LHB STOCK	0.2 Man/Coach
Sick Line		0.12 Man/Coach
Inspection Carriages	Per IC holding	1.76 Man/IC holding
Staff training (Requirement of trainer)		As per training norms
• ART & Accident relief • Mill Wright • Welfare measure • Ancillary staff		• Existing norms for ART & Accident relief • Balance activities to be on need basis
Linen Management	Per AC coach holding	0.18/AC Coach holding* * Zonal Railways to consider outsourcing this activity.

#### Note

1. Leave reserve & rest givers may be provided as applicable in addition to above yardstick.
2. The norm does not cover Ministerial staff and Divisional Control staff.

#### Activities to be outsourced:

1. All coach cleaning and watering activities including en-route watering (Already identified for outsourcing).
2. Coach amenity attention including carpentry, welding, trimming, plumbing/pipe fitting and provision of items like window glass, mirror, bottle holder, snack table, taps and faucet etc.
3. Attention to fire extinguishers (Already outsourced).
4. Linen washing and distribution (Already outsourced on most of the depots).
5. New amenity/security activities like PA/PIS, CCTV & infotainment etc.

30/9/19