# यांत्रिक

# MECHANICAL


# MADURAI Division

# मदुरै मंडल

## MADURAI DIVISION

## Depot wise – Coach Holding

| DEPOT | Bare Holding | | |
|---|---|---|---|
| | AC | NAC | TOTAL |
| MDU-ICF | 12 | 243 | 255 |
| MDU-LHB | 92 | 106 | 198 |
| TEN-ICF | 0 | 118 | 118 |
| TEN LHB | 65 | 79 | 144 |
| RMM- ICF | 29 | 113 | 142 |
| RMM LHB | 22 | 18 | 40 |
| TN LHB | 40 | 44 | 84 |
| Total ICF | 41 | 474 | 515 |
| Total LHB | 219 | 247 | 466 |
| Total | 260 | 721 | 981 |
| **Vande Bharat** | **DTC** | **TC** | **MC** |
| | **2** | **2** | **4** |
| Grand Total | 989 | | |

## COACHING MAINTENANCE

| Type of Maintenance | Depot | Number of Trains | Number of Coaches |
|---|---|---|---|
| Primary | MDU | 12 Trains (27 Rakes) | 453 |
| | TEN | 10 Trains (18 Rakes) | 270 |
| | RMM | 04 Trains ( 09 Rakes) | 183 |
| | TN | 01 Train (04 Rakes) | 84 |
| Secondary | MDU | -- | -- |
| | TEN | 02 Trains (03 Rakes) | 66 |
| | RMM | 02 Trains (02 Rakes) | 40 |
| | TN | 01 Train (01 Rakes) | 21 |
| PFTR | MDU | 12 Trains | 195 |
| | TEN | 13 Trains | 164 |
| | RMM | 11 Trains | 203 |
| | TN | 04 Trains | 51 |
| | DG | 03 Trains | 36 |
| | KKDI | 04 Trains | 44 |
| | SCT | 12 Trains | 109 |
| | TCN | 07 Trains | 96 |
| | PUU | 02 Trains | 30 |
| | BDNK | 02 Trains | 19 |

## MADURAI DIVISION

## MECHANIACAL ORGANISATION

| Category | Sanction | Actual | Vacancy |
|---|---|---|---|
| Supervisor | 76 | 57 | 19 |
| C & W Staff | 722 | 662 | 60 |
| Ministerial staff including Drawing staff | 52 | 49 | 3 |
| Total | 850 | 768 | 82 |

# ***MDU DEPOT***

# MADURAI

## 1. Coach Holding

| DEPOT | Bare Holding | | |
|---|---|---|---|
| | AC | NAC | TOTAL |
| MDU - ICF | 12 | 243 | 255 |
| MDU - LHB | 92 | 106 | 198 |
| Total | 104 | 349 | 453 |

## 2. Important Activities

- Coach Holding – 453 (255 ICF coaches & 198 LHB coaches)
- Coach maintenance- 110 coaches per day
- Intermediate Overhaul of Coaches @ 28 coaches per month
- SSI attention of LHB coaches @ 11 coaches per month
- Sick Rolling Stock Attention.
- A Class ART with 140 T Dsl. Crane, Hydraulic Re-railing Equipment and SPART.
- PFTR attention. - 111 coaches per day

## 3. Coaching Maintenance

| | | | |
|---|---|---|---|
| Primary | 12 Trains | 27 Rakes | 453 Coaches |
| Secondary | -- | | -- |
| PFTR | 12 trains | | 195 Coaches |
| Pass Through | 43 Trains (Avg.) | | |
| Daily Average coach maintenance (PM) | 110 coaches per day | | |

## 4. Disaster management system :

"A" class ART at MDU & SPART at MDU

## 5. Rake Maintenance

| Primary Maintenance | | | | | | | |
|---|---|---|---|---|---|---|---|
| SF / Express Trains | | | | | | | |
| Train No | Train Name. | No of coaches per rake | No. of Rakes | Frequency of slot | Maintenance slot | KM's Earned | **OEA/** SM |
| 12638/22675/ 12654/ 12653/ 22676/12637 (LHB) | Pandiyan/ Cholan/ Rock fort Exp | 22 | 4 | Daily | 09.00-17.00 Hrs | 2465 | MS & TPJ |
| 12636/12605/ 12606/12635 (LHB) | Vaigai/ Pallavan Exp. | 22 | 2 | Mon, Tue, Thur & Fri | 22.00-06.00 Hrs | 3688 (2 trips) | MS & KKDI |
| 22631/22632 (LHB) | MDU – BKN AC Exp | 22 | 1 | Wed | 09.00 -17.00 Hrs | 5117 | SM @ BKN |
| 16729/16730 | MDU – PUU Exp | 18 | 2 | Mon, Tue, Thur & Fri | 06.00 -14.00 Hrs | 1729 (2 trips) | PUU |
| 22623/22624 (LHB) | Chennai Bi weekly Exp. | 15 | 2 | Thurs | 09.00 – 17.00 Hrs | 2240 | MS |
| 12651/12652 (LHB) | Nizamuddin Exp. | 22 | | Sat & Mon | 09.00 – 17.00 Hrs & 14.00 – 22.00 hrs | 5338 | SM @ NZM |
| 12687/12688 | MDU-CDG Exp | 21 | 2 | Wed & Sun | 14.00 – 22.00 hrs | 6174 | SM @ CDG |
| 16327/16328 | MDU-GUV Exp | 14 | 2 | Tue, Wed, Fri & Sat | 22.00- 06.00 hrs | 3241 (2 trips) | GUV |
| Passenger Trains | | | | | | | |
| 06701/06702/06651/ 06654/ 06655/ 06652/ 06610/06609/ 06653/ 06656 | MDU-BDNK-MDU- RMM-MDU-DG-MDU -RMM - MDU | 11 | 4 | Daily | 22.00-06.00 hrs | 1277 | BDNK, DG, RMM |
| 06504/ 06658/ 06657/ 16848/ 06873/06729/ 06646/ 16847/ 06682/ 06681/ 06664 | MDU-SCT-TEN – SCT – MV- TJ- TPJ-MV- SCT-TEN-SCT-MDU | 12 | 4 | Daily | 22.00-06.00Hrs | 1814 | SCT, TEN, MV, TJ, TPJ |
| 16722/16608/ 06477/ 06478/ 16607/16721 | MDU-CBE-CAN-MAQ-CAN-CBE-MDU | 14 | 3 | Daily | 22.00 -06.00 hrs | 1277 | CBE, CAN, MAQ |
| Special Train | | | | | | | |
| IRCTC Spl On Demand | On Demand | 15 | 1 | -- | -- | -- | -- |

6. Platform Turn Round : (Daily Average PFTR - 111 Coaches per day)
No of Trains – 12 Pairs of Trains

| Sl. No. | Train No. | From | To | Arrival | Departure | PFTR on Days | No of Coaches |
|---|---|---|---|---|---|---|---|
| 1. | 12636/12605/ 12606/12635 (LHB) | MDU | MS | 21.15 | 07.10 | Sun, Wed, Sat | 22 |
| 2. | 22671/22672 (LHB) TEJAS Exp | MDU | MS | 12.15 | 15.00 | Daily (Except THU) | 15 |
| 3. | 16343/16344 | MDU | TVC | 10.10 | 16.05 | Daily | 22 |
| 4. | 16729/16730 | MDU | PUU | 06.15 | 23.30 | Sun, Wed, Sat | 18 |
| 5. | 12652/22624 | MDU | MS | 08.10 | 21.50 | Saturday | 15 |
| 6. | 06702/06651 | TENI/ MDU | RMM | 19.50 | 06.50 | Daily | 11 |
| 7. | 06654/06655 | RMM/ MDU | RMM | 14.40 | 18.10 | Daily | 11 |
| 8. | 06652/06610 | RMM/ MDU | DG | 09.30 | 18.10 | Daily | 11 |
| 9. | 06609/06653 | DG/ MDU | RMM | 09.20 | 12.30 | Daily | 11 |
| 10. | 22101/22102 (LHB) | MDU | LTT | 18.10 | 15.50 | Fri | 22 |
| 11. | 22716/22715 (LHB) | MDU | KCG | 05.15 | 13.10 | Sunday | 22 |
| 12. | 16328/16327 | GUV/ MDU | GUV | 19.15 | 11.20 | Mon, Thu & Sun | 14 |

## 7. Break Down Special:

| | |
|---|---|
| B.G BD spl | 140 T – DSL crane (COWANS SHELDON MAKE) UK |
| Crane Name | IR 141004 |
| YEAR BUILT | 1999, Commissioned on : 2002 |
| COST | 13.47 crore |
| CODAL LIFE | 25 Years |
| POH DATE | GKPW 22.12.2023, R/D : 07/2025 |

## 8. Infra Structure Facilities

### IOH Facilities

| Name of IOH Depot | No. of IOH lines | Capacity (in No. of coach) covered area | Capacity (in no. of coach) Uncovered area | Total capacity in no. of coach (Length of sick line – covered & uncovered area) |
|---|---|---|---|---|
| MDU | 3 | 3 x 1 = 3 | 15 | 3 x 6 = 18 (140m each) |

| MDU IOH | No of line | Capacity (in No. of coach) covered area | Total capacity in no. of coach (Length of sick line – covered) |
|---|---|---|---|
| Examination Pit | 2 | 2 x 1=2 | 2 |

### Pit line facilities

| Pit Line Nos. | Holding Capacity | High pressure jet cleaning plants |
|---|---|---|
| I | 26 | Available. |
| II | 26 | |
| III | 26 | |
| IV | 24 | |

Plat form facilities

| Plat form No | Holding capacity | Provision of water hydrants | Provision of washing apron | Availability of drainage facility | High pressure jet cleaning plant |
|---|---|---|---|---|---|
| PF 1 | 26 | Available | Available | Available | Not Available |
| PF 2 | 26 | Available | Available | Available | Not Available |
| PF 3 | 26 | Available | Available | Available | Available |
| PF 4 | 24 | Available | Available | Available | Available |
| PF 5 | 24 | Available | Not Available | Available | Available |
| PF 6 | 18 | Not Available | Not Available | Not Available | Not Available |
| PF 7 | 13 | Available | Not Available | Not Available | Not Available |

## 9. C&W Staff Position

| Category | Sanction | Actual | Vacancy |
|---|---|---|---|
| Supervisor | 27 | 21 | 6 |
| Group ‘C’ | 203 | 198 | 5 |
| Group ‘D’ | 88 | 73 | 15 |
| Total | 318 | 292 | 26 |

# ***TEN DEPOT***

# TIRUNELVELI

1. Coach Holding:-

| DEPOT | Bare Holding | | |
|---|---|---|---|
| | AC | NAC | TOTAL |
| TEN-ICF | 0 | 118 | 118 |
| TEN-LHB | 65 | 79 | 144 |
| Total | 65 | 197 | 262 |
| **Vande Bharat** | **DTC** | **TC** | **MC** |
| | **2** | **2** | **4** |

2. Important Activities:-

- Coach Holding – 270 (118 ICF coaches + 144 LHB coaches + VB 8 Coaches)
- Coach Maintenance- 64 coaches per day
- Intermediate Overhaul of Coaches @ 13 coaches per month
- SSI attention of LHB coaches @ 8 coaches per month
- Sick Rolling Stock Attention
- B Class ART with Hydraulic Re-railing Equipment
- PFTR attention- 134 coaches per day

3. Coaching Maintenance:-

| | | | |
|---|---|---|---|
| Primary | 10 Trains | 18 Rakes | 270 Coaches |
| Secondary | 2 Trains | 3 Rakes | 66 Coaches |
| PFTR | 13 Trains | | 164 Coaches |
| Pass Through | 30 Trains (avg.) | | |
| Daily average maintenance (PM+ SM) | 72.5 coaches per day | | |
| Vande Bharat Trip Schedule coaches per day | 6 coaches | | |

4. Disaster management system :

'B' Class ART at TEN

5. Rake Maintenance

| Primary Maintenance | | | | | | | |
|---|---|---|---|---|---|---|---|
| SF / Express Trains | | | | | | | |
| Train No | Train Name. | No. of coaches per rake | No. of Rakes | Frequency slot | Maintenance slot | KM's Earned | **OEA/** SM |
| 12632/12661/12662/ 12631 (LHB) | Nellai/ Pothigai Exp | 22 | 4 | Daily | 09.00 to 17.00 Hrs | 2642 | MS, SCT |
| 22619/22620 (LHB) | TEN-BSP Exp. | 22 | 1 | Sat | 09.00 to 17.00 Hrs | 4577 | SM @ BSP |
| 22629/22630 (LHB) | TEN-DR | 15 | 1 | Tue | 09.00 to 17.00 Hrs | 3850 | SM @ DA |
| 16791/16792 | TEN – PGT | 14 | 2 | Sun, Mon Thu & Fri | 09.00 to 17.00 Hrs | 3084 (2 trips) | PGT, TEN |
| 16787/16788 Weekly Exp (LHB) | TEN-SVDK | 19 | 1 | Mon | 06.00 to 14.00 Hrs | 7255 | SM @ SVDK |
| **20665/ 20666 Vande Bharat** | **TEN-MS** | **8** | **1** | **Tue** | **09.00 – 17.00 Hrs** | **7833 (6 trips)** | **MS, TEN** |
| Passenger Trains | | | | | | | |
| 06668/06667 | TEN – TN Unreserved Exp | 07 | 1 | Mon & Thu | 22.00 to 06.00 Hrs | 480 (4 trips) | TN, TEN |
| 06642/ 06643/ 06640/ 06639/ 06641 | TEN -NCJ - CAPE -PUU - NCJ -TEN. Pass link | 12 | 2 | Tue, Wed, Fri & Sat | 22.00 to 06.00 Hrs | 2096 (2 trips) | NCJ, CAPE PUU, TEN |
| 06673/16732/16731/ 06676/ 06677/ 06405/ 06675/ 06680/ 06672/ 06847/ 06848/ 06671/ 06679/ 06678 | TEN -TCN -PGT - TCN -TEN -TCN – TEN – TCN – MEJ – TN – MEJ – TN – MEJ – TCN - TEN Unreserved Exp | 12 | 4 | Daily | 22.00 to 06.00 Hrs | 1598 | TCN, PGT, TN, TEN |
| 06685/06684/06687/0 6686 | TEN-SCT | 12 | 1 | Thur & Sun | 22.00 to 06.00 Hrs | 320 (4trips) | SCT |

| Secondary Maintenance | | | | | |
|---|---|---|---|---|---|
| Train No | Train Name. | No. of coaches per rake | No. of Rakes | Frequency slot | Maintenance slot |
| 19577/ 19578 Bi-(LHB) weekly Exp | TEN – JAM | 22 | 2 | Sun/Mon & Mon/Tue | 22.00 to 06.00 Hrs |
| 20924/20923 (LHB) weekly Exp | TEN-GIMB | 22 | 1 | Wed | 14.00 to 22.00 Hrs |

6. Platform Turn Round: Daily Average PFTR – 134 coaches per day,
No of Trains – 13 Pairs of Trains

| SL No | Train No | From | To | Arrival | Departure | PFTR on Days | No of Coaches |
|---|---|---|---|---|---|---|---|
| 1. | 16791/16792 | TEN-PGT | PGT | 04.55 | 23.15 | Tue, Wed, Sat | 14 |
| 2. | 06658/06657 | SCT-TEN | SCT | 17.00 | 18.15 | Daily | 12 |
| 3. | 06682/06681 | SCT-TEN | SCT | 08.50 | 09.45 | Daily | 12 |
| 4. | 11021/11022 | DR-TEN | DR | 11.50 | 15.15 | Mon, Thu & Fri | 17 |
| 5. | 06676/06677 | TCN-TEN | TCN | 18.00 | 18.45 | Daily | 12 |
| 6. | 06405/06675 | TCN-TEN | TCN | 08.50 | 10.00 | Daily | 12 |
| 7. | 06668/06667 | TN-TEN | TN | 20.15 | 07.35 | Sun, Tue, Wed, Fri & Sat | 7 |
| 8. | 06641/ 06642 | NCJ-TEN | NCJ | 20.45 | 06.35 | Sun, Mon & Thu | 12 |
| 9. | 06674/06409 | TCN-TEN | TCN | 10.00 | 16.15 | Daily | 18 |
| 10. | 06684/06687 | SCT-TEN | SCT | 12.25 | 13.50 | Daily | 12 |
| 11. | 06686/16846 | SCT-TEN | ED | 18.00 | 20.10 | Daily | 12 |
| 12. | 06674/06409 | TCN-TEN | TCN | 08.15 | 10.01 | Daily | 18 |
| 13. | 06684/06687 | SCT-TEN | SCT | 10.00 | 12.15 | Mon,Tue,Wed, Fri,Sat | 12 |

## 7. Infrastructure Facilities

IOH Facilities:-

| Name of IOH Depot | No. of IOH lines | Capacity (in No. of coach) covered area | Capacity (in no. of coach) Uncovered area | Total capacity in no. of coach (Length of sick line – covered & uncovered area) |
|---|---|---|---|---|
| TEN | 2 | 2 x 3 = 6 coaches | 10 Coaches | 2 x 8 = 16 (210m each) |

| TEN IOH | No of line | Capacity (in No. of coach) covered area | Total capacity in no. of coach (Length of sick line – covered) |
|---|---|---|---|
| Examination Pit | 2 | 2 x 1=2 | 2 |

Pit line Facilities:-

| Pit Line Nos | Holding Capacity | High pressure jet cleaning pit line |
|---|---|---|
| I | 26 | Available for both sides. |
| II | 26 | |
| III | 26 | Available at one side (East side only). |

Platform Facilities:-

| Plat form No | Holding capacity | Provision of water hydrants | Provision of washing apron | Availability of drainage facility | High pressure jet cleaning plant |
|---|---|---|---|---|---|
| PF 1 | 26 | Available | Available | Available | Not Available |
| PF 2 | 26 | Available | Available | Available | Not Available |
| PF 3 | 26 | Available only 23 Coach length | Not Available | Available | Available |
| PF 4 | 26 | Available only 23 Coach length | Not Available | Available | Available |
| PF 5 | 26 | Damaged and not working. | Not Available | Open drain Available | Available |

## 8. C&W Staff Position

| Category | Sanction | Actual | Vacancy |
|---|---|---|---|
| Supervisor | 17 | 12 | 5 |
| Group ‘C’ | 110 | 96 | 14 |
| Group ’D’ | 68 | 61 | 7 |
| Total | 195 | 169 | 26 |

# ***RMM DEPOT***

# RAMESWARAM

1. Depot wise – Coach Holding

| DEPOT | Bare Holding | | |
|---|---|---|---|
| | AC | NAC | TOTAL |
| RMM- ICF | 29 | 113 | 142 |
| RMM – LHB | 22 | 18 | 40 |
| Total | 51 | 131 | 182 |

2. Important Depots and Activities

- Coach Holding – 182 coaches (142 ICF coaches + 40 LHB coaches)
- Coach maintenance- 42 coaches per day
- Intermediate Overhaul of Coaches @ 15.7 coaches per month
- SSI attention of LHB coaches @ 2 coaches per month
- Sick Rolling Stock Attention
- PFTR attention 104 coaches per day

3. Coaching Maintenance

| | | | |
|---|---|---|---|
| Primary | 4 Trains | 9 Rakes | 183 Coaches |
| Secondary | 2 Train | 2 Rakes | 40 Coaches |
| PFTR | 11 Trains | | 203 Coaches |
| Daily average maintenance (PM+SM) | 42 coaches per day | | |

4. Rake Maintenance

| Primary Maintenance | | | | | | | |
|---|---|---|---|---|---|---|---|
| SF /Express Trains | | | | | | | |
| Train No | Train Name. | No of coaches per rake | No of Rakes | Frequency | Maintenance slot | KM's Earned | **OEA/** SM |
| 22661/22662/ 16751/16752 | Sethu/ Port mail Exp. | 22 | 4 | Daily | 09.00-17.00 Hrs | 2400 | MS, RMM |
| 16733/16734(LHB) | RMM-OKHA | 21 | 1 | Friday | 09.00-17.00 Hrs | 6306 | SM @ OKHA |
| 16780/16779/ 22621/22622 | RMM-TPTY-RMM-CAPE | 18 | 1 | Wed/Thu | 22.00-06.00 Hrs | 2416 | TPTY, CAPE |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 16780/16779 | RMM-TPTY | 18 | 1 | Thu/Fri | 22.00-06.00 Hrs | 3206 | TPTY |
| 22621/22622 | RMM-CAPE | 18 | 1 | Sun/Mon | 22.00-06.00 Hrs | 1625 | CAPE |
| 22613/22614 (LHB) | RMM-AYC | 19 | 1 | Sun | 06.00 to 14.00 Hrs | 5842 | SM @ AYC |

| Secondary Maintenance | | | | | |
|---|---|---|---|---|---|
| Train No | Train Name. | No of coaches per rake | No of Rakes | Frequency | Maintenance slot |
| 22536/22535 | RMM-BSBS (LHB) | 20 | 1 | WED | 09.00 to 17.00 Hrs |
| 20973/20974 | RMM – AII (LHB) | 20 | 1 | TUE | 09.00 to 17.00 Hrs |
| Due to Pamban Bridge under construction, 4 PM rakes at TBM depot are maintained, the remaining 5 PM rakes and 2 SM rakes at MDU depot are maintained. | | | | | |

5. Platform Turn Round Trains: (Daily Average PFTR – 104 coaches per day)

No of Trains – 12 Pairs of trains

| SL No. | Train No | From | To | Arrival | Departure | PFTR on Days | No of coaches |
|---|---|---|---|---|---|---|---|
| 1. | 20896/20895 (LHB) | RMM | BBS | 22.40 | 08.40 | SUN | 19 |
| 2. | 16849/16850 | RMM | TPJ | 12.25 | 14.35 | Daily | 10 |
| 3. | 16751/16752 | MS/ RMM | RMM | 08.20 | 17.20 | Daily | 22 |
| 4. | 22661/226662 | MS/ RMM | MS | 04.10 | 20.20 | Daily | 22 |
| 5. | 06651/06654 | MDU/ RMM | MDU | 10.35 | 11.00 | Daily | 11 |
| 6. | 06653/06656 | MDU/ RMM | MDU | 16.10 | 18.00 | Daily | 11 |
| 7. | 06655/06652 | MDU/ RMM | MDU | 22.25 | 05.40 | Daily | 11 |
| 8. | 16618/16617 | RMM | CBE | 06.15 | 19.10 | Wed | 22 |
| 9. | 16779/16780 | TPTY/ RMM | TPTY | 04.55 | 16.20 | Sun | 18 |
| 10. | 22622/22621 | CAPE/ RMM | CAPE | 05.35 | 21.00 | Wed | 18 |
| 11. | 16779/22621 | TPTY/ RMM | CAPE | 04.55 | 21.00 | Sat | 18 |
| 12. | 07685/07686 | RMM | SC | 03.10 | 23.55 | Thu | 21 |

## 6. Infra Structure Facilities

IOH Facilities:-

| Name of IOH Depot | No. of IOH lines | Capacity (in No. of coach) covered area | Capacity (in no. of coach) Uncovered area | Total capacity in no. of coach (Length of sick line – covered & uncovered area) |
|---|---|---|---|---|
| RMM | 3 | 3 x 1 = 3 | 21 | 3 x 8 =24 (200m each) |

| RMM IOH | No of line | Capacity (in No. of coach) covered area | Total capacity in no. of coach (Length of sick line – covered) |
|---|---|---|---|
| Examination Pit | 2 | 2 x 1=2 | 2 |

Pit line facilities:-

| Pit Line Nos | Holding Capacity | Remarks |
|---|---|---|
| I | 26 | Catwalks under reconstruction. |
| II | 26 | |

Plat form facilities

| Plat form No | Holding capacity | Provision of water hydrants | Provision of washing apron | Availability of drainage facility | High pressure jet cleaning plant |
|---|---|---|---|---|---|
| PF 1 | 17 | Available | Available | Available | Available |
| PF 2 | 21 | Available | Available | Available | Available |
| PF 3 | 26 | Available | Available | Available | Available |
| PF 4 | 26 | Available | Available | Available | Available |

## 7. C&W Staff Position

| Category | C&W Staff Position | | |
|---|---|---|---|
| | Sanction | Actual | Vacancy |
| Supervisor | 10 | 9 | 1 |
| Group ‘C’ | 61 | 65 | +4 |
| Group ’D’ | 44 | 41 | 3 |
| Total | 115 | 115 | 0 |

# ***TN DEPOT***

# TUTICORIN

## 1. Depot wise – Coach Holding

| DEPOT | AC | NAC | TOTAL |
|---|---|---|---|
| TN (LHB) | 40 | 44 | 84 |

## 2. Important Depots and Activities

- Coach Holding – 84 LHB coaches
- Coach maintenance – 24 coaches per day
- SSI attention of LHB coaches @ 4.6 coaches per month
- Sick Rolling stock attention.
- PFTR Attention – 51 coaches per day.

## 3. Coaching Maintenance

| | | | |
|---|---|---|---|
| Primary | 1 Train | 4 Rakes | 84 Coaches |
| Secondary | 1 Train | 1 Rake | 21 Coaches |
| PFTR | 4 Train | | 51 Coaches |
| Daily average maintenance (PM & SM) | 24 coaches per day | | |

## 4. Rake Maintenance

| Primary Maintenance | | | | | | | |
|---|---|---|---|---|---|---|---|
| Train No | Train Name. | No of coaches per rake | No of Rakes | Frequency | Maintenance slot | KM's Earned | **OEA** |
| 12694/ 12633/ 12634/ 12693 | Pearl City Exp/ MS-CAPE Exp (LHB) | 21 | 4 | Daily | 09.00 to 17.00 Hrs (Except Sun 06.00 to 14.00 Hrs) | 2824 | MS, CAPE |

| Secondary Maintenance | | | | | |
|---|---|---|---|---|---|
| Train No | Train Name. | No of coaches per rake | No of Rakes | Frequency | Maintenance slot |
| 19568/67 (LHB) | OKHA – TN Exp | 19 | 1 | SUN | 14.00 to 22.00 Hrs (Sun) |

5. Platform Turn Round: (Daily Average PFTR - 51 coaches per day)

No of Trains – 4 pairs of Trains.

| SL No | Train No | From | To | Arrival | Dep. | PFTR on Days | No of coaches |
|---|---|---|---|---|---|---|---|
| 1. | 16235/36 (LHB) | MYS/TN | MYS | 11.00 | 17.15 | Daily | 21 |
| 2. | 06672/06847 | MEJ/TN | MEJ | 20.10 | 22.10 | Daily | 12 |
| 3. | 06848/06671 | MEJ/TN | MEJ | 04.00 | 08.25 | Daily | 12 |
| 4. | 06668/06667 | TEN/TN | TEN | 09.25 | 18.00 | Daily | 7 |

6. Infrastructure Facilities

IOH Facilities

| Name of IOH Depot | No. of IOH lines | Capacity (in No. of coach) covered area | Capacity (in no. of coach) Uncovered area | Total capacity in no. of coach (Length of sick line – covered & uncovered area) |
|---|---|---|---|---|
| TN | 2 | 2x2=4 | 14 | 2X9=18 (240m each) |

| TN IOH | No of line | Capacity (in No. of coach) covered area | Total capacity in no. of coach (Length of sick line – covered) |
|---|---|---|---|
| Examination Pit | 2 | 2 x 1=2 | 2 |

Pit line Facilities

| Pit Line Nos. | Holding Capacity | High pressure jet cleaning plants |
|---|---|---|
| I | 19 (LHB) | Available. |

Platform Facilities

| Plat form No | Holding capacity | Provision of water hydrants | Provision of washing apron | Availability of drainage facility | High pressure jet cleaning plant |
|---|---|---|---|---|---|
| PF 1 | 23 | Available | Available | Available | Available |
| PF 2 | 24 | Available | Available | Available | Available |
| PF 3 | 18 | Not Available | Not Available | Available | Available |

## 7. C&W Staff Position

| Category | Sanction | Actual | Vacancy |
|---|---|---|---|
| Supervisor | 3 | 3 | 0 |
| Group ‘C’ | 30 | 42 | +12 |
| Group ’D’ | 19 | 9 | 10 |
| Total | 52 | 54 | +2 |

# ***DG DEPOT***

# DINDIGUL

| | | |
|---|---|---|
| Rake Maintenance | Nil | |
| Platform Activities | Attention of pass through trains | Pass through attention of goods trains |
| Platform Turn Round | Daily Average Coaches | 24 coaches per day |
| | No of Trains | 2 Pairs of Trains |

| SL No | Train No | From | To | Arrival | Dep. | Frequency | No of coaches |
|---|---|---|---|---|---|---|---|
| 1 | 06610/06498 | MDU/ DG | TPJ | 19.45 | 06.15 | Daily | 12 |
| 2 | 06499/06609 | TPJ/ DG | MDU | 20.45 | 08.00 | Daily | 12 |
| 3 | 16868/16867 | VM/DG | VM | 22.15 | 05.00 | Daily | 12 |

## C&W Staff Position

| Category | Sanction | Actual | Vacancy |
|---|---|---|---|
| Supervisor | 2 | 1 | 1 |
| Group ‘C’ | 19 | 11 | 8 |
| Group ’D’ | 2 | 4 | +2 |
| Total | 23 | 16 | 7 |

## Infrastructure Facilities

Platform Facilities

| Plat form No | Holding capacity | Provision of water hydrants | Provision of washing apron | Availability of drainage facility | High pressure jet cleaning plant |
|---|---|---|---|---|---|
| PF 1 | 26 | Available | Available | Available (Open drainage) | Not Available |
| PF 2 | 26 | Available | Available | Available | Not Available |
| PF 3 | 26 | Available | Removed for speed enhancement | Available | Not Available |
| PF 4 | 26 | Available | Removed for speed enhancement | Available | Not Available |
| PF 5 | 26 | Available | Available | Available (Open drainage) | Not Available |

# ***KKDI DEPOT***

# KARAIKUDI

| | | |
|---|---|---|
| Rake Maintenance | Nil | |
| Platform Activities | Attention of pass through trains | Pass through attention of goods trains |
| Platform Turn Round | Daily Average Coaches | 35 coaches per day |
| | No of Trains | 4 Pairs of Trains |

| SL No | Train No | From | To | Arrival | Departure | No of coaches | Frequency |
|---|---|---|---|---|---|---|---|
| 1. | 12605/12606 | MS/KKDI | MS | 23.00 | 05.00 | 22 | Daily |
| 2. | 06197/06198 | TVR/KKDI | TVR | 11.45 | 16.00 | 9 | Daily (except Sun) |
| 3. | 06125/06126 | TPJ/KKDI | TPJ | 20.05 | 07.05 | 5 | Daily |
| 4. | 06829/06830 | TPJ/KKDI | TPJ | 10.15 | 12.10 | 8 | Daily |

## Infrastructure Facilities

Platform Facilities

| Plat form No | Holding capacity | Provision of water hydrants | Provision of washing apron | Availability of drainage facility | High pressure jet cleaning plant |
|---|---|---|---|---|---|
| PF 1 | 24 | Available | Not Available | Available | Not Available |
| PF 2 | 24 | Not Available | Not Available | Available | Not Available |
| PF 3 | 24 | Yet to be commissioned. | Not Available | Available | Not Available |
| PF 4 | 24 | Not Available | Not Available | Available | Not Available |
| PF 5 | 24 | Not Available | Not Available | Not Available | Not Available |

C&W Staff Position

| Category | Sanction | Actual | Vacancy |
|---|---|---|---|
| Supervisor | 1 | 0 | 1 |
| Group ‘C’ | 5 | 4 | 1 |
| Group ’D’ | 4 | 5 | +1 |
| Total | 10 | 9 | 1 |

# ***MNM DEPOT***

# MANAMADURAI

## No C&W Activities only RCD fuelling Activities

### Infrastructure Facilities

Platform Facilities

| Plat form No | Holding capacity | Provision of water hydrants | Provision of washing apron | Availability of drainage facility | High pressure jet cleaning plant |
|---|---|---|---|---|---|
| PF 1 | 24 | Available | Available | Available | Not Available |
| PF 2 | 24 | Available | Available | Available | Not Available |
| PF 3 | 24 | Not Available | Not Available | Not Available | Not Available |
| PF 4 | 24 | Available | Not Available | Not Available | Not Available |

### C&W Staff Position

| Category | Sanction | Actual | Vacancy |
|---|---|---|---|
| Supervisor | 0 | 0 | 0 |
| Group ‘C’ | 6 | 5 | 1 |
| Group ’D’ | 2 | 3 | + 1 |
| Total | 8 | 8 | 0 |

# ***SCT DEPOT***

# SENGOTTAI

| | | |
|---|---|---|
| Rake Maintenance | Nil | |
| Platform Activities | Attention of pass through trains | |
| Platform Turn Round | Daily Average Coaches | 109 coaches per day |
| | No of Trains | 9 Pairs of Trains |

| SL No | Train No | From | To | Arrival | Departure | Frequency | No of coaches |
|---|---|---|---|---|---|---|---|
| 1. | 12661/62 (LHB) | MS/ SCT | MS | 08.30 | 18.10 | Daily | 22 |
| 2. | 20681/20682 | MS/ SCT | MS | 08.55 | 16.50 | Tri Weekly (Thu, Sat & Sun) | 17 |
| 3. | 06504/06658 | MDU/ SCT | TEN | 10.35 | 14.55 | Daily | 12 |
| 4. | 06657/16848 | TEN/ SCT | MV | 20.20 | 07.00 | Daily | 12 |
| 5. | 06687/06686 | TEN/ SCT | TEN | 16.15 | 17.50 | Daily | 12 |
| 6. | 06681/06664 | TEN/ SCT | MDU | 11.50 | 12.10 | Daily | 12 |
| 7. | 16847/06682 | MV/ SCT | TEN | 21.30 | 06.40 | Daily | 12 |
| 8. | 20683/20684 (LHB) | TBM/ SCT | TBM | 10.50 | 16.15 | Mon, Wed & Fri | 17 |
| 10. | 16845/16846 | ED-SCT | ED | 23.15 | 04.50 | Daily | 12 |
| 11. | 06685/06684 | TEN/ SCT | TEN | 09.15 | 10.05 | Daily | 12 |
| 12. | 06687/06686 | TEN/ SCT | TEN | 16.15 | 17.50 | Daily | 12 |

## Infrastructure Facilities:

Platform Facilities

| Plat form No | Holding capacity | Provision of water hydrants | Provision of washing apron | Availability of drainage facility | High pressure jet cleaning plant |
|---|---|---|---|---|---|
| PF 1 | 24 | Available | Partially available for 18 coaches | Available | Available |
| PF 2 | 24 | Available | Not Available | Available | Available |
| PF 3 | 24 | Available | Not Available | Available | Available |
| PF 4 | 24 | Available | Not Available | Available | Available |

## C&W Staff Position

| Category | Sanction | Actual | Vacancy |
|---|---|---|---|
| Supervisor | 2 | 1 | 1 |
| Group ‘C’ | 17 | 15 | 2 |
| Group ’D’ | 3 | 1 | 2 |
| Total | 22 | 17 | 5 |

# ***MVN DEPOT***

# MILAVITTAN

| | | |
|---|---|---|
| Goods Train Examination and BPC Issued | Air brake | 45 trains (average per month) |
| Infra Structure Facilities | Examination lines | 3 lines 700 mts length each |
| | Sick line | 3 (1 of 12 wagons & 2 of 7 wagons each = 26 Vehicles) |

## C&W Staff Position

| Category | Sanction | Actual | Vacancy |
|---|---|---|---|
| Supervisor | 5 | 4 | 1 |
| Group ‘C’ | 35 | 23 | 12 |
| Group ’D’ | 4 | 6 | +2 |
| Total | 44 | 34 | 11 |

# ***TCN DEPOT***

# THIRUCENDHUR

| Rake Maintenance | Nil | |
|---|---|---|
| Platform Turn Round | Daily Average Coaches | 96 coaches per day |
| | No of Trains | 7 Pairs of Trains |

| Sl. No. | Train No | From | To | Arrival | Departure | Frequency | No of coaches |
|---|---|---|---|---|---|---|---|
| 1. | 20605/06674 | MS-TCN | TEN | 06.10 | 08.25 | Daily | 18 |
| 2. | 06409/20606 | TEN-TCN | MS | 17.50 | 20.25 | Daily | 18 |
| 3. | 06673/16732 | TEN-TCN | PGT | 09.00 | 12.20 | Daily | 12 |
| 4. | 06677/06405 | TEN-TCN | TEN | 20.20 | 07.20 | Daily | 12 |
| 5. | 06675/06680 | TEN-TCN | TN | 12.10 | 14.30 | Daily | 12 |
| 6. | 16731/06676 | PGT-TCN | TEN | 15.15 | 16.35 | Daily | 12 |
| 7. | 06679/06678 | TN-TCN | TEN | 13.35 | 18.15 | Daily | 12 |

Platform facilities:-

| Plat form No | Holding capacity | Provision of water hydrants | Provision of washing apron | Availability of drainage facility | High pressure jet cleaning plant |
|---|---|---|---|---|---|
| PF 1 | 24 | Available | Not available | Available | Available. |
| PF 2 | 16 | Available | Not available | Available | Available. |
| PF 3 | 12 | Not available | Not available | Not Available | Available. |

# PUNALUR

| | | |
|---|---|---|
| Rake Maintenance | Nil | |
| Platform Turn Round | Daily Average Coaches | 45 coaches per day |
| | No of Trains | 3 Pairs of Trains |

| Sl. No. | Train No | From | To | Arrival | Departure | Frequency | No of coaches |
|---|---|---|---|---|---|---|---|
| 1. | 16729/16730 | MDU-PUU | MDU | 10.10 | 17.15 | Daily | 18 |
| 2. | 06640/06639 | CAPE-PUU | NCJ | 20.15 | 06.30 | Daily | 12 |

Platform facilities:-

| Plat form No | Holding capacity | Provision of water hydrants | Provision of washing apron | Availability of drainage facility | High pressure jet cleaning plant |
|---|---|---|---|---|---|
| PF 1 | 24 | Completed | Not available | Available | Available. |
| PF 2 | 24 | Completed | Not available | Available | Available. |

# BODINAYAKKANUR

| | | |
|---|---|---|
| Rake Maintenance | Nil | |
| Platform Turn Round | Daily Average Coaches | 19 coaches per day |
| | No of Trains | 2 Pairs of Trains |

| Sl. No. | Train No | From | To | Arrival | Departure | Frequency | No of coaches |
|---|---|---|---|---|---|---|---|
| 1. | 06701/06702 | MDU-BDNK | MDU | 10.30 | 17.50 | Daily | 11 |
| 2. | 20601/20602 (LHB) | MGR-BDNK | MGR | 09.35 | 20.30 | Tue, Thu & Sat | 18 |

Platform facilities:-

| Plat form No | Holding capacity | Provision of water hydrants | Provision of washing apron | Availability of drainage facility | High pressure jet cleaning plant |
|---|---|---|---|---|---|
| PF 1 | 24 | Available | Not available | Available | Not available |
| PF 2 | 24 | Available | Not available | Available | Not available |

# INNOVATION:-

Nov – 2023

The Non-working of Pressuried Flushing System (PFS) in bio toilets is one of the maintenance challenge being faced by the coaching depots mainly due to worn out actuating piston assembly. On detailed examination, it is noticed that out of 2 actuating pistons in the pressuring cylinder, one on water end and other on pneumatic end. The water end are getting eroded on service due to salt deposits and abrasion due to minor floating particles in the water. The efforts made to replace the worn-out parts with OEMs did not yield results due to their poor response and instead of child parts, OEMs are interested to offer complete cylinder assembly, which costs around Rs.22000 per cylinder.

On this account, a significant number of cylinders in toilets running deficient and, in some case, it is forced to convert such in to other system including gravity flushing,

In this connection, the following technical team of MDU, took the initiative and came out with a cost-effective solution by designing a piston which can replace the defective ones and restore the system.

The team drafted its own design and developed 5 new pistons duly purchasing raw materials and machining in a CNC machining centre at a total cost of Rs.2100 per piston. One such piston was fitted in the PFS cylinder of Coach Number LWSCZ 216440 on 11.11.023 and so far it has been working satisfactorily. . This not only solves the problem of worn-out pistons but also potentially provides a more economical solution for maintaining the PFS.

Team Involved:

1. P. Sakthivel – SSE/C&W/MDU
2. S. Manikandan – SSE/C&W/MDU
3. M. Saga Devan – Tech. Gr-III/C&W/MDU
4. P. Ramachandran – Acct/C&W/MDU

| | |
|---|---|
|  |  |
| Piston Disc (Air side) found good and intact | Piston Disc (Water side) found decayed |
|  |  |
| Final Product (After CNC lathe Work) | |

1. Name of Railway:- Southern Railway
2. Name of the Subject:- Blinking Rotary lamp signalling device for OHE Line status
3. Name of Good work:- Blinking Rotary lamp signalling device for OHE Line status
4. Summary and Detailed Description:-

**Blinking Rotary Lamp Signaling Device for OHE Line Status Awareness**

In accordance with Para No. 13 of the Inspection notes from the Additional Member (Mechanical Engineering), which stipulates that 'System of working under OHE should be reviewed critically for absolute safe conditions. Red/green indication related to OHE charged condition may be displayed in the working area to make staff aware about the condition of OHE,' a dedicated signaling system has been meticulously implemented at Pitline No. 3 on both sides. This targeted initiative, specifically tailored for the maintenance of the Vande Bharath rake, incorporates a red indicator light pole seamlessly integrated with an audible siren. The primary objective of this system is to provide both visual and auditory alerts to the staff, effectively communicating the charged status of the Overhead Electric (OHE) power line. This strategic implementation serves as a proactive measure in mitigating potential risks and further underscores our unwavering commitment to ensure a safe operational environment.

Materials Used

- 1 ½" GI Pipe – 20 Feet
- 3" Round Plate – 02 Nos.
- 1sq mm wire – 30 m
- ½" Spring hose – 30 m
- 150 mm tag – 15 Nos.
- 8 x 30 Bolt and Nut – 08 Nos.
- ¼" spring washer – 08 Nos.
- Insulation Tape – 02 Nos.
- 12V Rotary Signal lamp – 02 Nos.
- Single pose MCB switch – 02 Nos.

**Device features**

The signaling device is composed of a robust 3-meter galvanized iron pole, featuring a blinking rotary signal lamp at one end and secure clamp fittings for mounting at the other end. To ensure safety and durability, the internal wiring of the blinking rotary signal lamp is meticulously routed through the pole and encased in a corrugated tube conduit. The operational switch for the entire setup is conveniently located beneath the pit line, mounted on the catwalk pillar.

**Operation Procedure**

Before energizing the OHE, operating staff are required to activate the blinking rotary signal lamp by toggling the MCB switch located beneath the pit line on the catwalk pillar. This action triggers the rotary signal light, emitting a cautionary red light and siren voice to alert staff about the energized condition of the overhead power line. Following the completion of the de-energization process, the operating staff can deactivate the indicator by turning off the MCB switch.

Kindly access the provided link to review the operational procedure

https://youtube.com/watch/4iJR8zhkm28?si=1nWBOwDZrxjXK6g9

This comprehensive signaling system not only visually indicates the status but also ensures an audible warning, promoting a safer working environment around the OHE Power line. The inclusion of both visual and auditory alerts enhances overall awareness, contributing significantly to the secure operational setting near the Overhead Electric (OHE) power line.

**Future scope**

Looking ahead, there are strategic initiatives to enhance the current signaling light system. The future advancements involve the integration of both red and green lights, signifying energized and de-energized statuses, respectively. Notably, this planned upgrade envisions a fully automated signaling system, eliminating the necessity for manual intervention. This forward-looking approach prioritizes operational efficiency and safety, facilitating a seamless and autonomous signaling process for transitions between energized and de-energized states.

5. Uploaded support Documents/Photographs/Diagram:

<table>
<tr>
<td>Blinking rotary signal light with siren<br>  </td>
<td>  <br>Metal clamp with mounting bolt nuts</td>
<td>  <br>Metal clamp with mounting bolt nuts</td>
</tr>
<tr>
<td>  <br>Spring hose pipe for wiring</td>
<td>  <br>1 ½” GI Pipe Pole for light mounting</td>
<td>  <br>Single pole MCB switch</td>
</tr>
</table>

| | |
|---|---|
|  |  |
| Signal pole installed on east side of pit line No. 3 | Signal pole installed on west side of pit line No. 3 |

Prepared by

M. Manthira Moorthy

SSE/C&W/TEN

G. Ramamoorthy

Asst/C&W/TEN

6. Contact person Name : Shri. S. BALAMURUGAN
7. Contact person Designation : SSE/C&W/TEN

INNOVATION:-

6. Name of Railway:- Southern Railway
7. Name of the Subject:- Bottle Holder Modification in Tr.No. 20666/65 TEN–MS Vande Bharat
8. Name of Good work:- Bottle Holder Modification in Tr.No. 20666/65 TEN–MS Vande Bharat
9. Summary and Detailed Description:-

**Bottle Holder Modification in T.No:20666/65 (TEN –MS) Vande Bharat Express**

Passenger complaints were received regarding the unavailability of a bottle holder in the middle row seats of all coaches.

As per the current design, passengers have to utilize the bottle holder attached to the seat in-front. Recognizing the absence of a front seat in the middle row and the presence of a wooden snack table instead, a thoughtful modification initiative was undertaken, successfully incorporating extra bottle holders into the middle row to enhance passenger convenience and accessibility during travel. The modification was also tested to see if there is any inconvenience to the seating of a passenger due to it.

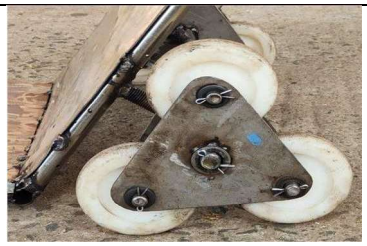
10. Uploaded support Documents/Photographs/Diagram:

**Before Modification**

**After Modification**

8. Contact person Name : Shri. S. BALAMURUGAN
9. Contact person Designation : SSE/C&W/TEN

| Si.No | Deatiled Description | Picture |
|---|---|---|
| 1 | **Gauge for Measuring Air Spring Height**<br>Stainless steel gauges of 2.5 mm thickness plate for measuring Air Spring Height. |  |
| 2 | **GO /NO GO gauge for measuring Bump stop Clearances**<br>Two numbers of Go / No Go gauge for measuring of Vertical, Longitudinal and lateral bump stop clearance was developed. |   |
| 3 | **Plunger wall thickness measuring Caliper**<br>To measure the wall thickness of Buffer plunger through out a full length a extension was made and fitted with vernier caliper arms. |   |
| 4 | **Gauge for Measuring Web Rim Thickness**<br>Scissor type calliper made of stainless steel was developed to measure Web Rim Thickness.<br>(web thickness of 14mm+3 or 17mm+3) |   |
| 5. | **Air Bellow Top Plate Remover aiding kit**<br>An adopter was fabricated to dismantle top plate from air bellow in air spring arrangement. |  |
| 6. | **Gadget of keeping one bogie over the another bogie**<br>A gaget was developed to keep one bogie over the another bogie. Hence, occupying space reduced and more bogies can be stocked. |  |
| 7 | **Torque Wrench Calibration Test Bench**<br>To ensure the accuracy of torque wrench the test bench with pre set torque value was fabricated. |  |

| | | |
|---|---|---|
| 8. | **Pedal Operated Dustbin for Multi Purpose**<br>An innovation made in the dust bins by single operation of foot pedal. The dustbin will open, and at the same time already available garbages will be squeezed. |  |
| 9 | **Foot Pedal operated Liquid soap dispenser and Hand wash**<br>During COVID-19 pandemic, foot operared Liquid soap dispenser and foot operated water tap was devolveped to avoid using of hands. |  |
| 10 | **CBC Supporting Screw Jack Type Gadget**<br>CBC supporting screw jack type gadget was made to remove CBC supporting assembly from coach body at pitline itself. |  |
| 11 | **Wire Rope and Pulley Mechanism for Manual Release of DV**<br>To eliminate DV struck up, a release mechanism was developed by utilizing SS wire rope (3 mm) and Pulley (5 Nos.) |  |
| 12 | **Tri Wheel Material Trolley**<br>Tri-wheel trolley was fabricated to carry goods up & down on irregular pathways, staircases as well as on flat ground. |  |
| 13 | **Instructional Videos for Educating C&W Staff's in LHB Maintenance**<br>Detailed Instructional video on the following subjects was made with QR code.<br>1. Schedule attention in LHB coaches.<br>2. Hand brake trouble shooting in LHB coaches.<br>3. Air spring suspension. |  |
| 14 | **Provision of Stopper in Hand BrakeArrangement**<br>The stopper was made to avoid damaging of the limit switch in LWLRRM Hand Brake. |  |