

INNOVATIONS DONE ON ZONAL RAILWAYS - DECEMBER, 2015

Central Railway

- **Vacuum flush Bio Toilet (V-fab)**- As a trial measure, Vacuum flush Bio Toilet has been fitted in twin toilets in one of the AC 2- Tier refurbished coach by Matunga Workshop of Central Railway. The released space has been converted as linen room and the existing linen room is converted into mini pantry. The coach is running in Train no. 12105 Vidarbha Express since 20.12.2015.



Picture-1

- **Modified seating arrangement in EMU coaches**- Modified seating arrangement has been introduced in unit no. 1117B-1119B-1120B-1118B turned out during the month from Matunga (MTN) workshop on trial basis as a short term measure, enhancing overall total capacity of the train by 336 passengers.



Picture-2



Picture-3

- **Development of on-load battery cell voltage testing unit**- Electric Loco Shed, Ajni has made on-load battery tester for both WAG-7 and 3-phase loco batteries. In this resistive load is used to check the healthiness of battery which will be helpful in preventing line failure of batteries.



Picture-4

Eastern Railway

- **Steam condensate recovery system in mechanized laundry-** Steam condensate recovery system has been developed in mechanized laundry at Malda. By implementation of this system, annual saving to the tune of about Rs. 7.5 lakhs could be achieved in respect of fuel cost and water cost. Besides, maintenance of the boiler will be reduced due to feeding of good quality water.
- **Introduction of Evacuation machine for removing non bio-degradable waste from Bio-tanks-** Howrah division has developed an indigenous evacuation machine for removing non bio-degradable waste from first chamber of Bio-tank. The machine is very useful for day to day maintenance of Bio-toilets. This will make the bio-toilets functional which were defunct due to jamming by non bio-degradable waste.
- **Whiteness meter for checking of linens-** Whiteness meter has been commissioned in Malda Laundry for checking the quality and cleanliness level of linens. This will improve the quality of linen and passenger satisfaction.

East Coast Railway

- Electric Loco Shed, Angul has fabricated a bearing puller for replacement of bearing of SIV, during the month.



Picture-5

- **Test bench for testing of BP & FP hose pipes-** A test bench for testing of BP & FP hose pipes before fitment in coaches and for validation of BP/FP gauges has been developed in-house by Coaching Depot, Bhubaneswar during the month.



Picture-6

North Western Railway

- **Arrangement for lifting P.Way material-** Tractor mounted lifting arrangement for lifting & loading of P.Way materials by single man has been developed locally by SSE/P.Way/Sudsar. In this system, attachment has been provided in rear of tractor for lifting of material. It will not only reduce manpower but also result into time saving.

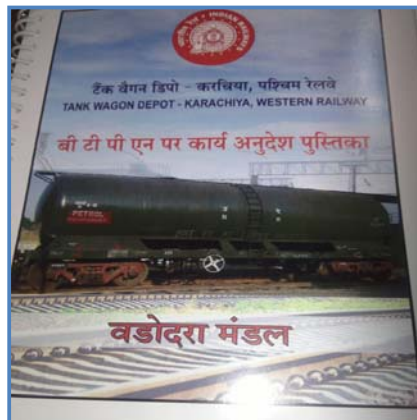
Western Railway

- **“PRAYAS” – A book for improving maintenance of LHB Coaches-** The experience of 12 years examination & maintenance of LHB coaches specifically for Pit line examination is being consolidated in a form of book “PRAYAS” with pictures & photographs, which will help all the maintenance staff for improving maintenance of LHB coaches.



Picture-7

- **Hand book on instructions of ROH & maintenance of BTPN Tank wagons-** A hand book containing instructions of ROH and BTPN Tank wagons by supervisors of (KRCA) Depot, Vadodara jointly unveiled by CRS, during GM's annual 21.12.2015. working maintenance of prepared in Hindi Karachiya Yard division, was CME & CSO inspection on



Picture-8