

भारत सरकार GOVERNMENT OF INDIA
रेल मंत्रालय MINISTRY OF RAILWAYS
(रेलवे बोर्ड RAILWAY BOARD)

No. 2017/M(C)/137/9

New Delhi dated 22.11.2017

GM/Mechanical,
All Zonal Railways.

Sub: Technical requirements for LHB coaching stock maintenance for speed upto 160/200 kmph.

LHB coaches would be utilized for passenger services upto a speed of 160/200 kmph. The maintenance infrastructure required in the open line for maintenance of such stock duly approved by Member Rolling Stock (MRS) is as under:-

1. Wayside maintenance facilities

a. Details of automated maintenance to be installed at wayside locations on the corridor

S. No.	Description	Functions of the system	Spacing (Kms.)	Location
1	Wheel Profile Measurement with online Ultrasonic flaw detector	To measure the wheel profile and to check for cracks in wheel discs of rolling stocks before entering in the depot.	At every terminal station	Preferably < 20 km before terminal stations or at entry of depots where speeds are upto 30 kmph
2	Online Monitoring of Rolling Stock (Acoustic Bearing Detector (ABD) and Wheel Impact Load Detector (WILD))	ABD-Detection of bearing fault by capturing Acoustics of defective bearing. WILD- Detection of high impact causing defective wheels.	Approx 400-500	As per indicated spacing and also at terminal stations (30-40 kms before such stations)
3	Machine Vision System Type-A	Under-slung and Hanging Parts examination	Approx 400-500	As per indicated spacing and also at major stoppage and terminal stations (30-40 km before such stations)
4	Machine Vision System Type-B	Rolling in Examination using Multi-spectral camera at every TXR points	Before every TXR stopping station	Preferably < 20 km before stopping stations and terminal stations where speeds are upto 30 kmph
5	Hot Axle/ Hot Wheel /Hot Box Detector	Measurement of Disc brake temperature and wheel temperature & detection of hot bearings reaching impending failures	Approx 150-200	As per indicated spacing and also at major stoppage and terminal stations (Preferably < 20 km before such stations)
6	RFID Readers	RFID readers are required to be installed for capturing the data for trending of the coach	At every TXR point	At every TXR point enroute and at terminal stations

7	Setting up of centralized data Centre	To capture/analyze the data generated by various wayside systems and for generating exceptional reports and communicating to the end users	Either at starting or at terminating station of the corridor
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Note: All the equipments mentioned above shall be procured as per RDSO specifications.

- b. **Quick watering arrangements** – To be provided at all nominated watering stations enroute on the corridor including origin and destination stations for watering of coaches as provided in Erode and Vijayawada stations or as per CAMTECH specification.

2. Maintenance Facilities at Primary/ Secondary Ends

- Automatic brake pad and brake disc inspection system with facility for providing alarm on low brake pad thickness level or unequal wear of brake pads shall be provided.
- Infrastructure facilities with full covered shed for the entire length of pit line as per CAMTECH specifications including boundary wall 8 feet height with barbed wire fencing over boundary wall for the depot premises.
- Facilities for inspection of roof top equipment like air conditioning plant.
- Automatic coach washing plant with water recycling and water treatment plant as per COFMOW specifications.

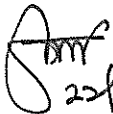
3. Maintenance Facilities at Platform Turn Around Locations

- Washable apron for cleaning related activities.
- Brake power condition facilities should be provided on the lines dedicated for such trains with return BPC.
- All other maintenance facilities as specified for terminal examination of coaching trains in RPC 4 Circular no.95/M(C)/141/1/Pt. dated 14.06.2017.
- Proper road for movement of men and material.

4. Maintenance Facilities at Sick line/IOH Examination Depots

- Overhead Cranes – 25t capacity for coverage of complete shed from both ends (i.e. 2 nos or 4 nos as per size of shed).
- Mobile lifting Platform – Battery powered aerial worklift platform with hydraulically operated scissor lifts.
- Coach lifting arrangement – 25t synchronized jack sets of 5 as per requirement.
- Wheel re-profiling facilities (pit wheel lathe as per COFMOW specifications)
- Facilities for examination of bogies, safety equipments and interior fittings, facilities for attention and overhauling of AC equipment, all other facilities as specified by CAMTECH for LHB coach for sick line/IOH attention in depots.
- Bio-toilet maintenance facility – An apron for mounting and dismounting of defective bio-toilet tanks. Further, a two way evacuation system for cleaning of first chamber during heavy schedule and re-filling of inoculum back into bio-toilet tank.

Note: The illumination in maintenance lines including in the pitline area, turned around locations and sickline/IOH examination depots should be 100-150 lux.

 22/11/2017

(Dimpy Garg)
EDME/Coaching
Railway Board

Copy to: ED/Carr/RDSO – to issue specifications of various equipments required.