



MC/CTRB/Defects

Date: 03.07.2019

**Principal Chief Mechanical Engineer,
South Central Railway,
Rail Nilayam,
Secunderabad – 500 071**

Sub: En-route detachment of LHB Coach No. NWR 13453/C LGS from train no. 12715 (NED-ASR) Sachkhand Exp. on 12.06.2019 due to hot axle at BSL Railway Station of Central Railway.

Ref: This office letter of even No. dated 13.06.2019.

In reference to above, joint inspection of reported bearing of Coach No. NWR 13453/C LGS by representatives of RDSO, South Central Railway, Central Railway and M/s Timken was carried out on 15.06.2019 at Coaching Depot, Bhusawal. The observations of joint inspection are enclosed as Annexure-I. From the observations, following can be inferred:

1. **It is clear that cage of inboard side cone assembly broken first due to wheel shelling beyond permissible limit**, which creates chances of cage breakage due to extreme torsional vibration arising from rail – wheel interactions. Wheels having shelling beyond limit i.e. depth-1.5mm & length-40mm should be removed from service and sent for tyre turning.
2. **D2 & D3 schedule of the coach has not been done even once since 24.12.2018.** Axle end covers of LHB coaches should be opened in D2 schedule to inspect the earthing equipment for wear of slip assembly/carbon bars and for monthly/quarterly inspection of WSP equipment to be carried out as per Para no. 12.3 of Maintenance Manual for LHB Coaches. All fasteners should be torqued with specified torque values during their fastenings.
3. Coaching Depot, Nanded, SCR is maintaining LHB Coaches since October 2018. **Whenever, LHB coaches are introduced in any Coaching Depot/Workshop, sufficient training should be imparted.**

In view of above, it is requested for comprehensive audit of practices being followed for LHB coach maintenance at Coaching Depot, Nanded with specific focus on axle box component maintenance. It is also requested for training to staff & supervisors for LHB coach maintenance at Coaching Depot, Nanded & other Workshop/Coaching Depot where LHB coaches have been introduced recently.

DA: As above.


3-7-19

(Shobhit Pratap Singh)
Jt. Director/VDG/Carriage
for Exe. Director (Stds.)/Carriage

Copy to: for kind information please.

DME/Coaching, Railway Board, Rail Bhawan, New Delhi – 110 001

Principal Chief Mechanical Engineer,

1. Central Railway, Chhatrapati Shivaji Terminus, Mumbai - 400 001
2. Eastern Railway, Fairlie Place, Kolkata - 700 001
3. Northern Railway, Baroda House, New Delhi - 110 001
4. Southern Railway, Park Town, Chennai - 600 003
5. South Eastern Railway, Garden Reach, Kolkata - 700 043
6. North Eastern Railway, Gorakhpur - 273 001

7. Western Railway, Churchgate, Mumbai - 400 020
8. Northeast Frontier Railway, Maligaon, Guwahati - 781 011
9. East Coast Railway, Chandrasekharpur, Bhubaneswar - 751 016
10. East Central Railway, Hajipur - 844 101
11. North Central Railway, Allahabad - 211 001
12. North Western Railway, Jaipur - 302 006
13. South Western Railway, Hubli - 580 023
14. West Central Railway, Jabalpur - 482 008
15. South East Central Railway, Bilaspur - 495 004
16. Konkan Railway Corp. Ltd. Corporate office Belapur Bhawan Nawi Mumbai-400 614

DA: As above.



(Shobhit Pratap Singh)
Jt. Director/VDG/Carriage
for Exe. Director (Stds.)/Carriage

Findings:

i. Train No:	12715 (NED – ASR)
ii. Train Name:	Sanchkhhand Express
iii. Coach no:	13453/C
iv. Coach built:	RCF 2014
v. SS-II:	All (W) 17-01-2017
vi. SS-I:	MD 22/10/2018
vii. D2:	24/12/2018
viii. DOC:	20/02/2019 at Nanded from other Zonal Railways
ix. Return date:	02/20
x. Earned kms:	Approx. 100,000 KM (after receiving at Nanded dtd 20-02-19)
xi. Primary Examination:	Nanded, SCR
xii. Date of failure:	12/06/2019
xiii. Axle box no. & Temp.:	R8 (Earthing Side) & 74 ⁰ C
xiv. Bearing Make:	Timken
xv. Bearing is within warranty or not:	Within Warranty
xvi. Bearing no:	03-13-02229 (TIL/027/06-17/AJR R1 (damaged) 09-12-05321 (TIL/049/04/17/AJR R1 (Other end)
xvii. Wheel dia:	858 mm

1. The axle end cover of reported axle box no.R8 (earthing device end) was missing at arrival at BSL Railway Station & during joint inspection.



2. Earthing cable of axle box (R8) found in damaged condition. The 02 nos. threaded holes of the control arm were found worn out.
3. Control arm (R8) lug found in broken condition. Opposite side primary damper found in leaky condition.



4. Oiler ring of earthing device found in intact condition. Rubbing/hitting marks found on eye piece of oiler ring.



5. Grease oozing found at the inboard side of the affected bearing (03-13-02229 (TIL/027/06-17/AJR R1) and slight grease oozing at outboard side end. Grease found inside the bore of upper & lower half of the control arm.



6. During rotation of the bearing unusual sound noted from the bearing due to cage breakage. Bearing grease seal found in good condition and no damage found on the grease seals.
7. The wheel shelling marks found on the wheel and the shelling depth and length is more than the specified limit.



8. The other end bearing (09-12-05321 (TIL/049/04/17/AJR R1) having slight grease oozing at outboard side. Shelling marks found on other wheel tread as well.



9. Coach was marked sick on 08.06.2019 at Nanded/SCR due to R6 primary inner coil spring broken and R8 axle end cover missing.
10. Coach was given fit on 11.06.2019 and attached in train on 12.06.2019. Coach detached en-route at BSL Railway Station only after running approx. 530 kms during first run from given fit to the coach.