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No.MC/LHB/Brake

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**महाप्रबन्धक (यांत्रिक )**

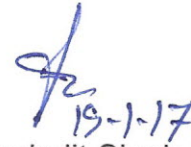
1. मध्य रेलवे, छत्रपति शिवाजी टर्मिनस, मुम्बई- 400 001.
2. पूर्व रेलवे, फेयरली प्लेस, कोलकाता - 700 001.
3. उत्तर रेलवे, बडौदा हाउस, नई दिल्ली - 110 001.
4. दक्षिण रेलवे, पार्क टाउन, चेन्नई - 600 003.
5. दक्षिण मध्य रेलवे, रेल निलायम, सिकन्दराबाद-500 071.
6. दक्षिण पूर्व रेलवे, गार्डेन रीच, कोलकाता - 700 043.
7. पूर्वोत्तर रेलवे, गोरखपुर - 273 012.
8. पूर्वोत्तर सीमान्त रेलवे, मालीगॉव, गुवाहाटी - 781 011.
9. पश्चिम रेलवे, चर्चगेट, मुम्बई - 400 020.
10. पूर्व मध्य रेलवे, हाजीपुर - 844 101.
11. पूर्व तटीय रेलवे, बीडीए रेंटल कालोनी, रेलवे काम्प्लेक्स, चन्द्रशेखरपुरा, भुवनेश्वर, उड़ीसा - 751 016.
12. उत्तर मध्य रेलवे, हार्लिंग रोड, इलाहाबाद -211 001.
13. उत्तर पश्चिम रेलवे, जयपुर - 302 006.
14. दक्षिण पश्चिम रेलवे, हुबली - 580 023.
15. पश्चिम मध्य रेलवे, जबलपुर - 482 001.
16. दक्षिण पूर्व मध्य रेलवे, आर ई आफिस काम्प्लेक्स, बिलासपुर - 495 004.

**Sub:** Proper attention of air-brake system in LHB coaches to prevent wheel shelling.

With subject to above, feedback was collected from various railways regarding maintenance practices of air-brake system which is also contributing significantly in the cases of wheel shelling. The maintenance practice of Ajni Depot of Nagpur Division was also studied and it was found that due to their proper maintenance practices adopted in maintaining LHB rake; there is no wheel shelling in the last one year.

In view of above, a check list has been prepared for ensuring proper maintenance of brake system in LHB coaches mainly covering the activities during trip and monthly schedule. Same is enclosed as Annex.I. All railways are requested to follow these instructions and provide their feedback regarding improvement in cases of wheel shelling and brake related failures to RDSO on quarterly basis. In this regard, concern supervisor / officer may be deputed to Ajni Depot of Nagpur Division to learn the maintenance practices exactly being followed.

Encl.: As above.

  
19-1-17

( Indrajit Singh )

Executive Director(Stds.)/Carriage

Copy to: EDME(Coaching), Railway Board, Rail Bhawan, New Delhi.

**ANNEXURE-1****CHECKSHEET FOR MAINTENANCE OF AIR BRAKE SYSTEM FOR LHB COACHES IN COACHING COMPLEX/DEPOTS  
FOR ZONAL RAILWAYS OF INDIAN RAILWAYS IN TRIP & MONTHLY SCHEDULE**

S.No.	Operations	Observations/Remarks
	<b>TRIP SCHEDULE EXAMINATION</b>	
1.0	<b>BRAKE EQUIPMENTS WITH NO AIR PRESSURE</b>	
1.1	Perform a visual check on Brake Cylinders/Brake Calipers for damage, cracks and corrosion and foreign bodies and check free movement of brake calipers by manually shaking them for proper working.	
1.2	Lubricate the Brake levers, pins & bushes and all moving parts with oil for to ensure free movements of calipers. There should not be any drop of lubricant on the Brake Disc.	
1.3	Perform a visual check on brake discs for proper fixing.	
1.4	Verify axial movement of Brake Disc along the axle.	
1.5	Check brake discs for cracks/fracture/damage/wear. If groove marked on disc is flushed with wearing face of disc then it is necessary to replace the disc.	
1.6	Perform a visual check of brake pads for damage and foreign bodies	
1.7	Check play of brake-pads in holders and monitor wear. If Brake Pad(s) is worn out it is necessary to replace them in a full set formation.	
1.8	Visually inspect steel piping, air hoses and joints for cracks/damages/ballast hitting.	
1.9	Air reservoirs to be drained.	
2.0	<b>BRAKE EQUIPMENTS WITH AIR PRESSURE</b>	
2.1	Perform a functional test on pneumatic brake system as per standard format.	
2.2	Air-pipes and connections: Check leakage by noise of escaping air and by applying soap solution on joints and arrest the same if noticed.	
2.3	Check functionality of pneumatic brake system by physically shaking the brake calipers as per required brake positions.	
2.4	Check operation of passenger emergency valve & pull box (including leakages). Proper resetting of PEASD must be ensured.	
3.0	<b>HAND BRAKE IN POWER CARS</b>	
3.1	Perform visual check on hand-braking equipment for damage, breaks, cracks & corrosion.	
3.2	Perform a visual check on all fixings for loosening &/or missing components. Replace the loose & missing fixing with new ones & tighten them.	
3.3	Check functionality of hand braking equipment: operate the hand brake wheel on the car body & check that assemblies move freely & without hardening. Check flex ball arrangement for proper working	
4.0	<b>WHEEL SLIDE PROTECTION DEVICE</b>	
4.1	Perform a visual check on all grounding cables & WSP equipment cables for breaks/damages.	
4.2	Check functioning of WSP & dump valves operation during static testing.	



<b>MONTHLY SCHEDULE EXAMINATION</b>	
5.0	Perform all the operations mentioned in trip schedule including the given below.
6.0	Check all fixings parts of airbrake in bogie and under frame are properly secured
7.0	Thoroughly check all air-pipes & connections are properly fixed with under frame.
8.0	Removal of dust & greasy type material sticking on Brake calipers & actuators with suitable tool.
9.0	Properly lubricate the all Brake levers, pins & bushes and all moving parts using prescribed grease. There should not be any drop of lubricant on the Brake Disc.
10.0	Lubrication of brake panel's isolating cock.
11.0	Clean BP & FP air filters and strainers.
12.0	Check air-coolers, scoops and fins of brake disc etc., for foreign bodies
13.0	Verify the clearance between each brake pad and disc surface.
14.0	Inspect WSP equipment as per schedule given by OEM.
15.0	While doing the function test, Brake Cylinder pressure to be measured through test points in brake panes for ensuring desired values and also check functioning of safety valves apart from all other functional test done as per trip schedule.

AC