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No.: MW/WAD/CTRB/GENL

Date: 26.12.2022

As per circulation list

Sub: Instructions/ guidelines to control hot axles cases on CTRB.

Ref : (i) This office letter of even No. dated 23.03.2021.
(ii) This office letter of even No. dated 02.05.2022.
(iii) DFC letter No. HQ/ML/Unusual dated 11.11.2022.

1. For safe running of wagons, role of CTRB is vital. It is noticed that online failure of CTRB has been increased. RDSO has issued several guidelines/ instructions to Zonal Railways from time to time to control the failures of CTRBs. Zonal railways are requested to follow the instructions/ guidelines and ensure that all points in overhauling/ repair shall be undertaken to control the failure cases.

2. RDSO has undertaken various activities in regards to control the cases of online CTRBs failure. RDSO & OEMs have conducted technical quality audit and technical seminar in workshops and issued the observations to Zonal Railways. But no feedback has been received whether the guidelines/ instructions issued from time to time are being implemented and followed.

3. In addition to the instructions/ guidelines issued from time to time, this office vide letter of even No. dated 02.05.2022 has added and iterated some instructions to be followed like checking of shoulder diameter with snap gauge of digital micrometer, Suitable instruments such as dial, digital snap gauges etc. for measurement of dimensions having three digit after decimal, revised quantity of grease i.e. 390 ± 20 gram in both CTRBs i.e. Class-E and Upgraded Class-E during overhauling in Railways workshop etc. It is requested to Zonal Railways to comply the guidelines as issued vide this office letter at reference (i) and (ii) and send feedback on action taken.

4. In order to improve the reporting of hot axle cases, a Google sheet was prepared and shared with Zonal Railways for timely reporting. This is now incorporated in FMM to enhance failure data analysis and timely reporting. It is once again requested to fill the required information timely and correctly with all data required to be filled so that fruitful failure analysis can be achieved.

5. In addition to above, it is brought out that some CTRBs are received in following conditions as shown below which may cause hot axles. This is a serious concern and hence become necessary and required to be booked and looked into. Sr. DME of division are to be entrusted with responsibility to ensure proper fastening at designated points in the wagon body so that the condition as shown in pictures below not repeated.



6. The following are the major area of concern including the points as mentioned in letters at reference above-

- (a) Handling of wheel sets with prescribed lifting and not by wire ropes. The Zonal Railways are requested to confirm whether prescribed lifting device are available with them and being followed at their area of jurisdiction.
 - (b) Special attention is required so that electric current does not pass through the bearings. The earthing should be done very close to welding area and the earthing wire should be tightly secured at both ends. Alternatively, the earthing can be done with an earthing wire/strip running parallel to the track instead of earthing with the rails. If wagon is not properly earthed the current passing through the bearings will cause arcing in between the rollers and the raceways leading to failure of CTRBs.
- Improper earthing is very serious matters and cause of concern. It is also learnt that this work is being done by outsource agencies. Zonal Railways are requested to educate the concern contractual staff and ensure that proper earthing as enumerated with proper clamping at proper place is being followed. The outsourced staffs are required to be sensitise on this serious issue. The confirmation in this regard is to be submitted to this office.
- (c) Design of seal wear ring for Class-E CTRB of M/s NEI was revised by this office in 2010 where small bore length increased to 18.750 mm from earlier 9.65 mm to minimise axle grooving and prevent wear rotation on axle. In this regard, this office vide letter of even No. dated 30.03.2022 has advised that seal wear ring of M/s NEI having small bore length 9.65 mm, if found during overhauling, is to be replaced with seal wear ring of bore length 18.75 mm during overhauling of bearings to rule out the possibilities of axle grooving & wear rotation on axle. The feedback on the same to be submitted to this office.
 - (d) It is also observed that marking particulars are not being conducted on Cup, if the CTRBs are being mounted by ROH depot. The working staff may be made aware on this point and availability of facilities for marking with photographs to be submitted to this office.
 - (e) Defective CTRBs are being pulled out due to OMRS alert. Defect found and action taken in pulled out defective CTRBs due to OMRS alert is not being intimated to this office. Only Jhansi workshop is submitted this report. It is requested all Workshop to do the same.

7. Vide reference (iii) above, DFC has reported that hot axle cases are attributed to mismatching of bearing components. Interchangeability of bearing components is given in para 13 and Annexure-XIII of maintenance manual G-81. It is advised to follow the said instructions and ensure that the officials responsible for this activity must be fully educated and made aware about interchangeability. Feedback on interchangeability and action taken on sensitizing the staff to be sent to this office.

8. Zonal Railways are requested to follow all the guidelines/ instructions issued from time to time so that online CTRB failure can be controlled and submit their feedback on compliance to this office by 31st Jan 2023.

Encl: Nil

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SRIVASTAVA
VA

Digitally signed
by ANAND RISHI
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(Anand Rishi Srivastava)
Director Standard Wagon
For Director General (Wagon)

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2. Eastern Railway, Fairlie Place, Kolkata – 700 001
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12. South Eastern Railway, Garden Reach, Kolkata – 700 043
13. South East Central Railway, RE Office Complex, Bilaspur – 495 004
14. South Western Railway, Club Road, Keshwapur, Hubli – 560 023
15. West Central Railway, Opposite Indira Market, Jabalpur – 482 001
16. Western Railway, Churchgate, Maharishi Karve Marg, Mumbai – 400 020

(c) The Chief Workshop Managers:

1. Eastern Railway Workshop, Liluah, District: Howrah (West Bengal) – 711 204
2. Eastern Railway Workshop, Jamalpur, District: Munger (Bihar) – 811 214
3. Mechanical Workshop, East Central Railway, Samastipur (Bihar)-848 101
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- (Haryana)-135 002
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 13. Wagon Repair Workshop, South Central Railway, Guntupalli (A.P.)-521 241
 14. Western Railway Workshop, Freelandganj , Dahod, District: Panchmahal (Gujarat)-389 160
 15. Western Railway Workshop, Pratap Nagar, Vadodara (Gujarat)-390 004
 16. Carriage &Wagon Workshop, North East Frontier Railway, New Bongaigaon (Assam)-798 381