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आजादी का  
अमृत महोत्सव

GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS  
RAILWAY BOARD

No.2021/Track-III/TK/6

New Delhi, dt. 19.04.2023.

The Principal Chief Engineers  
All Zonal Railways

Sub: Safe working of Track Machines.

Ref: (i) Bd's letter of even no. dated 25.02.2022.

(ii) Safety Dte. Railway Board's note bearing e file No. 1429600 dated 06.04.2023.

Vide ref (i), recently instructions have been issued in the past for safe working of Track Machines. Vide ref (ii) an issue related to derailment of a BRN wagon attached with UTV machine on dated 04.09.2022 in ECR has been raised by safety Dte. of Railway Board. In this derailment, CBC coupling of UTV machine and attached BRN got uncoupled during engineering block. It was found that the angle cock of BRN wagon was in closed condition due to which brake of BRN wagon could not get applied after uncoupling causing derailment at TRR site after roll down. The consequences could have been more severe if the derailment had not taken place.

To avoid such accident/derailments, coaches/BRNs attached with Track Machines should be equipped with continuous air brake system. Railways are advised to make action plan to ensure compliance of Para 1 of GR 4.12. The present position in regard to compliance of above should be submitted to Railway Board in the following format:

S N	Rly	Type of Machine	Machine No.	Attachment (Wagon/coach)	Whether provided with continuous air brake system	If no then target date
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(Ashish Bansal)

Executive Director Track (M&MC)

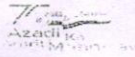
Railway Board

Tele: No. 011-47845527

Email\_ID: [ab.bansal@gov.in](mailto:ab.bansal@gov.in)

DA: As above





GOVERNMENT OF INDIA (BHARAT SARKAR)  
MINISTRY OF RAILWAYS (RAIL MANTRALAYA)  
(RAILWAY BOARD)

No. 2021/Track-/TK/6

New Delhi, Dtd. 25.02.22

Principal Chief Engineers,  
All Zonal Railways.

Sub: Safe working of Track Machines.

Ref. i) Railway Board's letter of even no. dated 02.09.21.

ii) Railway Board's letter no. 2021/Track-III/MC/12/Vol.II dated 22.07.21.

iii) Railway Board's letter no.2015/Track-III/TK/2 dated 22.06.15.

iv) Railway Board's letters no.2015/Track-III/TK/2 dated 28.01.21, 26.11.20, 22.12.20, 25.01.19, 07.12.18, 16.01.18, 18.07.17, 26.10.15 & 18.09.15.

v) Railway Board's letter no.2015/Track-III/TK/2 dated 20.09.16.

vi) Railway Board's letter no.2014/Track-III/TK/5 dated 22.09.16.

Safety of staff and safe working of track machines should be ensured at all time. In this regard, instructions exists in IRTMM-2019, G&SR and IRPWM. RDSO has issued checklists & maintenance schedules for track machines. Vide above references ( Copy enclosed), instructions have also been issued time and again from Railway Board for safe working of track machines.

2) Vide ref. (iii) above, detailed checklists for track machine operators, checklists for P.Way for working with track machines and prevention of failure of track machines prepared by NR were circulated. The same is again enclosed for ready reference and implementation on Railways.

iii) One week safety drive on safety items (brake system, undergear inspection of track machines) was under taken (ref. v) and a CE/TMC conference on the issue was also held on 03.10.16 (ref. vi). Deliberations of the CE/TMC conference are also enclosed for reference and implementation.

It is advised that all concerned may please be counseled to follow these rules and instructions to ensure safe working of track machines.

*Vijay Singh*  
25.02.2022

(Vijay Singh)

Director Track (MC)

Railway Board

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DA: as above



Reminder

Sno-1  
E- File having no.3417518, regarding issue of modification of rules under para 701 (2) in IRTMM-2019, as raised by PCSO/ECR to PED/Safety in his letter dated 07.09.2022, was sent to AM/CE through Ed/Safety-II and PED/Safety on 06.01.2023. As per the action history of the file, the same is lying with Shri Sanjoy Abhraham, DDTK-III.

The subject matter as stated by PCSO/ ECR in the reference is reproduced as under:-

"The extract of sub para (2) of Para 701 of Chapter 7 of Indian Railways Track Machine Manual (IRTMM)-2019 regarding rules for movement and Block working is reproduced below:-

**"Self-propelled Track Machines-** For movement, these shall be worked as a train but will not need a guard or a brake van. One camping coach or one BRN wagon or another self-propelled track machine, **which may be un-braked**, shall permitted to be hauled by the self-propelled track machine SSE/JE/TM operating the machine shall ensure safe running.

On ECR, derailment of a BRN wagon took place on 04.09.2022. In this accident, CBC coupling of UTV machine and attached BRN wagon got uncoupled during working at engineering Block site. It was found that the angle cock of BRN wagon was in closed condition due to which brake of BRN wagon could not get applied after uncoupling and it roll down and derailed at TRR site.

Para 1 GR 4.12 states that:

"No engine or self-propelled vehicles shall push any train outside station limits except in accordance with special instructions and at a speed not exceeding 25 KM an hour,

Provided also that no train which is not equipped with continuous **vacuum/air brake** shall be pushed outside station limits except in case of emergency."

In Para (a) of SR 4.62 of ECR, it is mentioned that-

"Material/Ballast train must not be allowed without Guard and competent engineering official not below the rank of SE/JE(P.Way) to run from any station to work. **In no case material ballast train to be dispatched without the continuity of vacuum/air pressure.**"

.....Contd 2/-



The provision in IRTMM regarding attaching one camping coach or one BRN wagon or another self-propelled track machine un-braked is inconsistent with G& SR and not desirable from safety considerations.

The derailment of BRN wagon in the reference case took place because the wagon attached with UTV machine was un-braked. Had this wagon been duly connected with UTV machine with continuous air brake pressure, the brake would have been applied in the wagon even after uncoupling and incidence of rolling down of the wagon and consequent derailment would not have happened. The movement of un-braked coach/wagon with any type of Track Machine is a serious safety hazard. **The movement of only braked coach/wagon with Track Machine should be allowed after ensuring brake power continuity test.**

Therefore, in above context present rules regarding movement of un-braked coach/wagon/Track Machine should be suitably amended and provision for movement of only braked coach/wagon/Track Machine should be added by making necessary modification in relevant Para of IRTMM to ensure safe train operation and to prevent accident/unusual."

3. Keeping in view the position stated by PCSO/ECR and the incident of rolling down / derailment of un-braked wagon which was coupled with track machine, Track dte. was requested to review the para 701(2) of Indian Railway Track Machine Manual (IRTMM)-2019 so as to ensure conformity with the provisions of G&SRs and foolproof safety in the operation of track machines.

4. This issue has again been raised by PCSO/ECR in PCSOs meeting held on 31.03.2023. Keeping in view the criticality of the matter being safety related, it is again requested to review the para 701(2) of Indian Railway Track Machine Manual (IRTMM)-2019 on priority basis and Safety directorate may also be apprised of the action taken in this regard.

*Aswini*  
DD/Safety(A&R)II

*HW*  
ED/Safety-II *06/04/2023*

PED/Safety *30.4.23*

AM/CE  
Please examine & dism

ED/Tk (M&MC)

*nd*  
*10.04.2023*

*1/AMCE*  
*06/10/23*

- Dismissed
- Field back Ben Zonal railways along with action plan to be taken

*DDTS-3*  
*Write to Railways*  
*10.04.23*

*JKMC*  
EDTK (M&MC) *10.04.23*  
*Please send a letter to all zonal Railways. Action plan should be called for background*



8N-1

EAST CENTRAL RAILWAY

Office of the  
General Manager/Safety  
Hajipur

No.ECR/Safety/Track Machine/2022

Date:07.09.2022

PED/Safety  
Railway Board,  
New Delhi.

**Sub: Regarding modification of rules under para 701 (2) in  
IRTMM-2019.**

The extract of sub para (2) of Para 701 of Chapter 7 of Indian Railways Track Machine Manual (IRTMM)-2019 regarding rules for movement and Block working is reproduced below: -

***"Self-propelled Track Machines-* For movement, these shall be worked as a train but will not need a guard or a brake van. One camping coach or one BRN wagon or another self-propelled track machine, **which may be unbraked**, shall permitted to be hauled by the self-propelled track machine. SSE/JE/TM operating the machine shall ensure safe running."**

On ECR, derailment of a BRN wagon took place on 04.09.2022. In this accident, CBC coupling of UTV machine and attached BRN wagon got uncoupled during working at engineering Block site. It was found that the angle cock of BRN wagon was in closed condition due to which brake of BRN wagon could not get applied after uncoupling and it roll down and derailed at TRR site.

Para 1 of GR 4.12 states that: -

***"No engine or self-propelled vehicles shall push any train outside station limits except in accordance with special instructions and at a speed not exceeding 25 KM an hour,***

***provided also that no train which is not equipped with continuous vacuum/air brake shall be pushed outside station limits except in case of emergency."***



to work. In no case material ballast train to be dispatched without the continuity of vacuum/air pressure."

The provision in IRTMM regarding attaching one camping coach or one BRN wagon or another self-propelled track machine un-braked is inconsistent with G & SR and not desirable from safety considerations.

The derailment of BRN wagon in the reference case took place because the wagon attached with UTV machine was un-braked. Had this wagon been duly connected with UTV machine with continuous air brake pressure, the brake would have been applied in the wagon even after uncoupling and incidence of rolling down of the wagon and consequent derailment would not have happened. The movement of un-braked coach/wagon with any type of Track Machine is a serious safety hazard. **The movement of only braked coach/wagon with Track Machine should be allowed after ensuring brake power continuity test.**

Therefore, in above context present rules regarding movement of unbraked coach/wagon/Track Machine should be suitably amended and provision for movement of only braked coach/wagon/Track Machine should be added by making necessary modification in relevant Para of IRTMM to ensure safe train operation and to prevent accident/unusual.

[illegible]

(Shiv Kumar Prasad)  
PCSO

Copy to: -

- (1) Secy. to GM - for kind information of GM.
- (2) PCE – for information and pursuing the matter with Engg. Directorate of Railway Board please.