GUARD FILE 2021 Pt.I

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

आज़ादी का अमृत महोत्सव

आज़ादी का अमृत महोत्सव

No. 2021/CEDO/SR/22(1) **New Delhi, Dated 23.12.2021**

The Director General,
RDSO,
Manak Nagar, -226011.

The General Manager,
All Indian Railways

Sub:- Introduction of operation of **Multipurpose Tamper (MPT) Model DDC-16W,** manufactured by M/s CRCC High Tech Equipment Corporation Ltd., China **[**Unique Transportation Code: **MTDDC16W;** Maximum Axle Load: **18.3t]** to GA Drawing no. DDC16W(IND)-00 upto a maximum provisional speed of **65 kmph when running on its own power as well as in train formation** over IR, by Zonal Railways

Ref: (i) RDSO's Provisional Speed Certificate (PSC) no. TM/HM/11/49/MPT CRCC, dated 30.04.2020, along with its Amendment no. 1 & 2 dated 01.12.2020 and 20.01.2021
(ii) RDSO's letter no. TM/HM/11/49/MPT CRCC, dated 25.01.2021 & 08.10.2021
(iii) CCRS office letter No.Q.12011/07/2020-21 t.w, dated 11.08.2021

With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of operation of **Multipurpose Tamper (MPT) Model DDC-16W,** manufactured by M/s CRCC High Tech Equipment Corporation Ltd., China **[**Unique Transportation Code: **MTDDC16W;** Maximum Axle Load: **18.3t]** to GA Drawing no. DDC16W(IND)-00, upto a maximum provisional speed of **65 kmph when running on its own power as well as in train formation** over IR, by Zonal Railways, with the following stipulation:

(i) Observance of all conditions laid down in RDSO's Provisional Speed Certificate (PSC) No. TM/HM/11/49/MPT CRCC, Dated 30.04.2020 alogwith its Amendment no. 1 & 2 Dated 01.12.2020 and 20.01.2021 respectively for operation up to a maximum speed of 65 kmph on its own power as well as in train formation. **Remarks of the Railway against each para of the Speed Certificate shall be submitted to the Commission before start of actual operation of rolling stock.**

Issue pls
27/12/2021

29/12/21

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(ii) Observance of all permanent and temporary speed restrictions already in force and/ or those that may be imposed from time to time on various accounts.

(iii) Location of bridges on which speed restrictions have been imposed shall be notified by the Railways and incorporated in the working timetable.

(iv) Signaling requirement with respect to maximum permissible speed as per standard of *Interlocking given in Indian Railways Signal Engineering Manual, July 2021, **para no. 7.8.9** shall be followed.*

(v) Before initiating the movement of the machine, Chief Engineer/Track Machine of the concerned Railway shall arrange to certify the track worthiness and safety of the Rolling stock and they shall also ensure proper maintenance of the rolling stock.

(vi) Brakes of the machine shall be in good working order during the operation.

(vii) When the machine is being moved either on its own power or hauled in train, it shall be ensured that all the protruding parts are withdrawn and suitably locked, so that during the run, there is no possibility of any infringement occurring to the standard moving dimensions.

(viii) The machine when running in train formation, a speed restriction of 15 kmph shall be imposed on diamond crossings. No speed restriction on main line route at points and crossings is required. Speed restriction on turnout side of points and crossings shall be 15 kmph. The movement of the machine in case of Track Machine in block section, instructions of the para 708(4) of Indian Railways Track Machine Manual, Septemer-2019 shall be followed.

(ix) Points and Crossing Tamping Machine shall be maintained as per 'Maintenance manual for 'Multipurpose Tampers' issued by RDSO.

(x) Speedometer is provided in both the cabins but there is no provision to record the instantaneous speed of the machine which can be later downloaded and analysed. Suitable provisions similar to locos must be made to record & download the instantaneous speed.

(xi) Earth connections of the Rolling stock i.e. Body to Bogie and Bogie to axle shall always be maintained in healthy condition.

(xii) Before the start of machine, the operator should ensure that the maintenance is started from the 'zero point' indicated by the SSE/P-Way so as to compare the post run data captured by the machine with the actual measurement on the ground.

29/12.24

(xiii) Suitable signage to warn the crew and workers against the 25KVA OHE should be stenciled on the machine. DOs & DON'Ts for the working with this machine shall be displayed inside the rolling stock

(xiv) Machine operators need to be properly trained as far as working of machine is concerned and operators must be issued machine wise 'Competency Certificate'.

(xv) Detailed Maintenance Manual having colour photographs should be available with the machine.

(xvi) First Aid Box having prescribed medicines & other items should be mounted at an appropriate place. List of medicines/items should be pasted inside the first aid box

(xvii) A standard tool box including tool kit should be provided. List of these tools should be pasted inside the cabin.

(xviii) Speed limit of the machine should be prominently displayed on either side of the cab

23.12.21

(गौरव)
निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड
[Phone: 030-47598(Rly) : 011-23047598(MTNL)]
e-mail address :dceg@rb.railnet.gov.in

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement संख्या–Q.12011/07/2020–21–त.वि, Dated 11.08.21
2. Executive Director (Standards)Motive Power, RDSO, Lucknow
3. Executive Director (Standards) Track-I, RDSO, Lucknow
4. Executive Director Tk(M&Mc), Railway Board

23.12.21

(गौरव)
निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

(4)

आज़ादी का अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

आज़ादी का अमृत महोत्सव

No. 2021/CEDO/SR/22(2) **New Delhi, Dated 23.12.2021**

The Director General,
RDSO,
Manak Nagar, -226011.

Sub:- Improvement of the **Multipurpose Tamper (MPT) Model DDC-16W,** manufactured by M/s CRCC High Tech Equipment Corporation Ltd., China to GA Drawing no. DDC16W(IND)-00 [Unique Transportation Code: **MTDDC16W;** Maximum Axle Load: **18.3t]**

Ref:- (i) Railway Board's letter No. 2021/CEDO/SR/21(1), dated 23.12.2021
(ii) RDSO's letter no. TM/HM/11/49/PCT/CRCC, dated 25.01.2021 & 08.10.21
(iii) CCRS office letter संख्या–Q.12011 / 07 / 2020–21–त.वि, dated 11.08.2021

With reference to your above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board has been communicated for introduction of operation of **Multipurpose Tamper (MPT) Model DDC-16W, manufactured by M/s CRCC High Tech Equipment Corporation Ltd.,** China [Unique Transportation Code: **MTDDC16W**; Maximum Axle Load: **18.3t]** to its GA Drawing no. DDC16W(IND)-00 up to a maximum speed of **65 kmph when running on its own power as well as in train formation** over IR, by Zonal Railways vide Railway Board's letter under reference (i) above. CCRS, while recommending for introduction of this Rolling Stock to the Railway Board has suggested ***following measures for future improvement of the*** **machine** :

(i) At present the stock is running at a speed of 65 kmph on its own power as well as in train formation on the basis of Provisional Speed Certificate. Oscillation trial of the stock should be conducted at the earliest and Final Speed Certificate issued to utilize the full speed potential of the stock

(ii) Necessary provision should be made to record the conversation between staff present in the cabs for reference during enquiry of any unusual incident/accident

(iii) 4 No CCTV cameras have been provided to assist the operator carry out the tamping operations. However, there is no provision to record the CCTV footage for reference

Issue pls
27/12/2021

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during investigation/ enquiry of an unusual incident. Necessary modifications should be made to record CCTV footage for at least 30 days.

(iv) Optical Fiber based Linear Heat Detection (LHD) system should be provided wherever there are bunching of cables. This will help in detecting heating spots before they are converted in to fire.

(v) Track Machines must be offered for statutory inspection only after commissioning & calibration/fine tuning

(vi) Application must accompany track parameters before and after maintenance of a location like turn out, points & crossing etc and its analysis against the codal provisions clearly bringing out the effectiveness of the machine. The parameters recorded by the machine after maintenance must closely match the parameters measured manually

(vii) Comparison of salient features of machine against the tendered specification along with statement of deviation, if any, must be submitted along with the application

RDSO is requested to examine above and take necessary action for future improvement of above Machine. The compliance of the same should also be submitted to CCRS.

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आज़ादी का अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

Azadi Ka Amrit Mahotsav

No. 2021/CEDO/SR/20(1)

New Delhi, Dated 23.12.2021

The Director General,
RDSO,
Manak Nagar, -226011.

The General Manager,
All Indian Railways

Sub:- Introduction of operation of **Points & Crossing Tamping Machine Model CDC-16W & XCD-16W,** supplied by M/s CRCC High Tech Equipment Corporation Ltd., China [Unique Transportation Code: **'CTCDC16W & CTXCD16W'**; Maximum Axle Load: **21.6t]** to GA Drawing no. CDC16W(IND)-00 **upto a maximum speed of 65 kmph when running on its own power as well as in train formation** over IR, by Zonal Railways

Ref:- (i) RDSO's Provisional Speed Certificate(PSC) no. TM/HM/11/45/PCT CRCC, dated 30.04.2020, alongwith Amendment 1 & 2 dated 02.12.2020 & 20.01.2021
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(i) Observance of all conditions laid down in RDSO's Provisional Speed Certificate (PSC) No. TM/HM/11/45/PCT CRCC, Dated 30.04.2020 along with its Amendment no. 1 & 2 Dated 02.12.2020 and 20.01.2021 respectively for operation up to a maximum speed of 65 kmph on its own power as well as in train formation. **Remarks of the Railway against each para of the Speed Certificate shall be submitted to the Commission before start of actual operation of rolling stock.**

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(v) Before initiating the movement of the machine, Chief Engineer/Track Machine of the concerned Railway shall arrange to certify the track worthiness and safety of the Rolling stock and they shall also ensure proper maintenance of the rolling stock.

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(ix) Points and Crossing Tamping Machine shall be maintained as per 'Maintenance manual for 'Points & Crossing Tamping Machines' issued by RDSO.

(x) Speedometer is provided in both the cabins but there is no provision to record the instantaneous speed of the machine which can be later downloaded and analyzed. Suitable provisions similar to locos must be made to record & download the instantaneous speed.

(xi) Earth connections of the Rolling stock i.e. Body to Bogie and Bogie to axle shall always be maintained in healthy condition.

(xii) Before the start of machine, the operator should ensure that the maintenance is started from the 'zero point' indicated by the SSE/P-Way so as to compare the post run data captured by the machine with the actual measurements on the ground.

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2. Executive Director (Standards)Motive Power, RDSO, Lucknow
3. Executive Director (Standards) Track-I, RDSO, Lucknow
4. Executive Director Tk(M&Mc), Railway Board

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निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

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आज़ादी का अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

Azadi Ka Amrit Mahotsav

No. 2021/CEDO/SR/20(2) New Delhi, Dated 23.12.2021

The Director General,
RDSO,
Manak Nagar, -226011.

Sub:- Improvement of the **Points & Crossing Tamping Machine Model CDC-16W & XCD-16W,** supplied by M/s CRCC High Tech Equipment Corporation Ltd., China to GA Drawing no. CDC16W(IND)-00 [Unique Transportation Code: **'CTCDC16W & CTXCD16W'**; Maximum Axle Load: **21.6t]**

Ref:- (i) Railway Board's letter No. 2021/CEDO/SR/20(1), dated 23.12.2021
(ii) RDSO's letter no. TM/HM/11/45/PCT/CRCC, dated 25.01.2021 & 08.10.2021
(iii) CCRS office letter संख्या–Q.12011/08/2020–21–त.वि, dated 11.08.2021

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27/12/2021

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(v) Track Machines must be offered for statutory inspection only after commissioning & calibration/fine tuning

(vi) Application must accompany track parameters before and after maintenance of a location like turn out, points & crossing etc and its analysis against the codal provisions clearly bringing out the effectiveness of the machine. The parameters recorded by the machine after maintenance must closely match the parameters measured manually

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2. Executive Director (Standards)Motive Power, RDSO, Lucknow
3. Executive Director (Standards) Track-I, RDSO, Lucknow
4. Executive Director Tk (M&Mc), Railway Board

23.12.21

(गौरव)

निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

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भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड) (Railway Board)

No. 2020/CEDO/SR/12 New Delhi, dated 21.12.2021

To,
General Manager
South Eastern Railway
Garden Reach, Kolkata.

Sub: Running CC+8+2t wagons up to a maximum speed of 75 kmph
Ref: 1) SER DO No. M2/Hot Axle/OMRS, Dated 10.08.2021
2) RB's Letter No. 2020/CEDO/SR/12, Dated 27.05.2021

1. SE Railway vide DO under reference has requested Railway Board to review the instruction related to **'Installation of WILD'** for running 22.9t axle load wagon over IR system.

2. The matter has been examined and following is submitted for appreciation of the issue:

Operation of 22.9t axle load wagons in loaded condition at 75 kmph was recommended by RDSO in report submitted vide DG/RDSO letter dated 14.08.2019. In the report, it has been clearly indicated that the stress created in rail due to operation of 22.9 t axle load at 75 kmph exceeds the permissible yield stress of 60 kg 90 UTS rails. In order to mitigate the effects over rail and to avoid increase in defect generation rate in rails & subsequent failure along with other risk factors, certain pre-requisites have been stipulated.

Further, the issue of "Operation of 22.9t axle load at 75 kmph" was deliberated by PED/ED level committee of Board constituting of PED/Bridges, PED/TT/M and EDME/Freight. All aspects of safety and operation were considered by the committee in light of recommendations made by RDSO and operation of 22.9t axle load was permitted at 75 kmph with the approval of Board (ME), with certain stipulations of provision of WILD, Weigh Bridges, Adequate powering, Reduction of distressing temperature etc, vide letter no 2020/CE-II/TS/22.9 dated 20.08.2020.

3. To safeguard against any possibility of unduly high stresses due to defective loaded wagon movement, mandatory condition of availability of WILDs prior to introduction of 22.9t loaded trains has been imposed. This aspect assumes even greater importance due to movement of both coaching and freight track on same track. Therefore, in the interest of safety, mandatory provision of WILDs/OMRSs prior to operation of 22.9 t axle load at 75 kmph operation is required to be continued.

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4. Further, in order to avoid premature failure of rails due to overstressing and impact created by defective wheel of wagon, at locations where WILDs/OMRSs are already installed, the protocol of detection of wagon creating critical alarm in WILD and its detachment need to be followed in true spirit as per JPO issued vide letter no. 2002/M(N)/960/1Pt. dated 29.07.2008.

21/12/2021

(Atul B. Khare)
Principal Executive Director/Civil Engineering (P)
Railway Board

(13)

आज़ादी का अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

Azadi Ka Amrit Mahotsav

No. 2021/CEDO/SR/21(1) **New Delhi, Dated 16.12.2021**

The Director General,
RDSO,
Manak Nagar, -226011.

The General Manager,
All Indian Railways

Sub:- Introduction of operation of **Shoulder Ballast Cleaning Machine Model BS-550**, supplied by M/s CRCC High Tech Equipment Corporation Ltd., China, **'SBCMBS550C'** [Maximum Axle Load: **21.5t**] to Drawing no. BS 550 (IND)-00 upto a **maximum speed of 65 kmph when running on its own power as well as in train formation** over IR, by Zonal Railways

Ref: (i) RDSO's Provisional Speed Certificate (PSC) No TM/HM/11/44/SBCM CRCC, Dated 03.01.2020 along with its Amendments no. 1 & 2 Dated 02.12.2020 and 29.01.2021
(ii) RDSO's letter no. TM/HM/11/44/SBCM CRCC, Dated 02.02.2021
(iii) CCRS office letter No.Q.12011/06/2020-21-t.w., Dated 11.08.2021

With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of operation of **Shoulder Ballast Cleaning Machine Model BS-550**, supplied by M/s CRCC High Tech Equipment Corporation Ltd., China, **'SBCMBS550C'** [Maximum Axle Load: **21.5t**] to Drawing no. BS 550 (IND)-00, upto a maximum speed of **65 kmph when running on its own power as well as in train formation** over IR, by Zonal Railways, with the following stipulation :

17/12/2021

i. Observance of all conditions laid down in RDSO's Provisional Speed Certificate no. TM/HM/11/44/SBCM CRCC, Dated 03.01.2021 alog with its Amendments no. 1 & 2 Dated 02.12.2020 and 29.01.2021 respectively for operation up to a maximum speed of 65 kmph on its own power as well as in train formation. **Remarks of the Railway against each para of the Speed Certificate shall be submitted to the Commission before start of actual operation of rolling stock.**

ii. Observance of all permanent and temporary speed restrictions already in force and /or those that may be imposed from time to time on various accounts.

iii. Location of bridges on which speed restrictions have been imposed shall be notified by the Railways and incorporated in the working timetable.

17/12/2021

iv. Signalling requirement with respect to maximum permissible speed as per standard of *Interlocking given in Indian Railways Signal Engineering Manual, July 2021, para no. 7.8.9 shall be followed.*

v. Before initiating the movement of the machine, Chief Engineer/Track Machine of the concerned Railway shall arrange to certify the track worthiness and safety of the Rolling stock and they shall also ensure proper maintenance of the rolling stock.

16/12/21

vi. Brakes of the machine shall be in good working order during the operation.

vii. When the machine is being moved either on its own power or hauled in train, it shall be ensured that all the protruding parts are withdrawn and suitably locked, so that during the run, there is no possibility of any infringement occurring to the standard moving dimensions.

viii. The machine when running in train formation, a speed restriction of 15 kmph shall be imposed on diamond crossings. No speed restriction on main line route at points and crossings is required. Speed restriction on turnout side of points and crossings shall be 15 kmph. The movement of the machine in case of Track Machine in block section, instructions of the para 708(4) of Indian Railways Track Machine Manual, Septemer-2019 shall be followed.

ix. Shoulder Ballast Cleaning Machine shall be maintained as per 'Maintenance manual for Shoulder Ballast Cleaning Machine' issued by RDSO.

x. Speedometer is provided in both the cabins but there is no provision to record the instantaneous speed of the machine which can be later downloaded and analysed. Suitable provisions similar to locos must be made to record & download the instantaneous speed.

xi. Earth connections of the Rolling stock i.e. Body to Bogie and Bogie to axle shall always be maintained in healthy condition.

xii. Suitable signage to warn the crew and workers against the 25KVA OHE should be stenciled on the machine. DOs & DON'Ts for the working with this machine shall be displayed inside the rolling stock

xiii. Machine operators need to be properly trained as far as working of machine is concerned and operators must be issued machine wise 'Competency Certificate'.

xiv. Detailed Maintenance Manual having colour photographs should be available with the machine.

xv. First Aid Box having prescribed medicines & other items should be mounted at an appropriate place. List of medicines/items should be pasted inside the first aid box

xvi. A standard tool box including tool kit should be provided. List of these tools should be pasted inside the cabin.

xvii. Speed limit of the machine should be prominently displayed on either side of the cab.

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

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4. Executive Director Tk(M&Mc), Railway Board

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड

(15)

आज़ादी का अमृत महोत्सव

भारत सरकार **Government of India**
रेल मंत्रालय **Ministry of Railways**
(रेलवे बोर्ड **Railway Board)**

Azadi Ka Amrit Mahotsav

No. 2021/CEDO/SR/21(2) **New Delhi, Dated 16.12.2021**

The Director General,
RDSO,
Manak Nagar, -226011.

Sub:- Introduction of operation of **Shoulder Ballast Cleaning Machine Model BS-550,** supplied by M/s CRCC High Tech Equipment Corporation Ltd., China, **'SBCMBS550C'** [Maximum Axle Load: **21.5t]** to Drawing no. BS 550 (IND)-00 upto a maximum speed of **65 kmph when running on its own power as well as in train formation** over IR, by Zonal Railway

Ref:- (i) Railway Board's letter No. 2021/CEDO/SR/22(1), Dated 16.12.2021
(ii) RDSO's letter no. TM/HM/11/44/PCT/CRCC, Dated 02.02.2021
(iii) CCRS office letter no. Q.12011/06/2020-21-t.w, Dated 11.08.2021

With reference to your above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board has been communicated for introduction of operation of **Shoulder Ballast Cleaning Machine Model BS-550**, supplied by M/s CRCC High Tech Equipment Corporation Ltd., China **[**Maximum Axle Load: **21.5t]** to its Drawing no. BS 550 (IND)-00 upto a maximum speed of **65 kmph when running on its own power as well as in train formation** by Zonal Railways vide Railway Board's letter under reference (i) above. CCRS, while recommending for introduction of this Rolling Stock to Railway Board has suggested ***following measures for improvement of the*** **machine** :

Issue pls
17/12/2021

(i) At present the stock is running at a speed of 65 kmph on its own power as well as in train formation on the basis of Provisional Speed Certificate. Oscillation trial of the stock should be conducted at the earliest and Final Speed Certificate issued to utilize the full speed potential of the stock

(ii) Necessary provision should be made to record the conversation between staff present in the cabs for reference during enquiry of any unusual incident/accident

17/12/2021

O/C Prem Sagar
16.12.21

(iii) 4 No CCTV cameras have been provided to assist the operator carry out the tamping operations. However, there is no provision to record the CCTV footage for reference during investigation/ enquiry of an unusual incident. Necessary modifications should be made to record CCTV footage for at least 30 days.

(iv) Optical Fiber based Linear Heat Detection (LHD) system should be provided wherever there are bunching of cables. This will help in detecting heating spots before they are converted in to fire.

(v) Track Machines must be offered for statutory inspection only after commissioning & calibration/fine tuning.

(vi) Comparison of salient features of machine against the tendered specification along with statement of deviation, if any, must be submitted along with the application.

16.12.21

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement No. Q.12011/06/2020-21-t.w, Dated 11.08.21
2. Executive Director (Standards)Motive Power, RDSO, Lucknow
3. Executive Director (Standards) Track-I, RDSO, Lucknow
4. Executive Director Tk(M&Mc), Railway Board

16.12.21

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड

आज़ादी का अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

Azadi Ka Amrit Mahotsav

(17)

No. 2021/CEDO/SR/13(LWACCNE) **New Delhi, dated 14.12.2021**

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

The General Manager,
All Indian Railways

Sub:- Introduction of LHB AC-3 Tier Economy coach 'LWACCNE' on LHB platform (83 berth capacity) [Maximum Axle Load: 16.25t] to RCF's Layout Drawing No. LE90067 fitted with pneumatic suspension at the secondary stage on FIAT bogies up to a maximum speed of 160 kmph over Indian Railways, by Zonal railways on track maintained as per provisions of Para 522 of Indian Railways Permanent Way Manual, June-2020

Ref:- (i) Railways Board's letter no. 2021/CEDO/SR/13(LWACCNE)(1) dated 10.05.2021

1. Railway Board vide letter no. 2021/CEDO/SR/13(LWACCNE)(1) dated 10.05.2021, has sanctioned the introduction of LHB AC-3 Tier Economy coach 'LWACCNE' on LHB platform (83 berth capacity) [Maximum Axle Load: 16.25t] to RCF's Layout Drawing No. LE90067 fitted with pneumatic suspension at the secondary stage on FIAT bogies up to a maximum speed of 160 kmph over Indian Railways, by Zonal railways with certain stipulations.

2. Railway Board has now decided to amend the stipulations number **(xviii), (xix) & (xx),** of above sanctioned letter dated 10.05.2021, with the following:

   '*Signalling requirement with respect to maximum permissible speed as per standard of Interlocking given in Indian Railways Signal Engineering Manual, July 2021,* ***para no. 7.8.9*** *shall be followed.*'

Issue plz
15/12/2021

o/c 14.12.21
(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement No. Q.12011/20/2020-21, t-w, Dated 25.03.2021
2. Executive Director (Standards)Motive Power, RDSO, Lucknow
3. Executive Director (Standards) Track-I, RDSO, Lucknow
4. Executive Director ME(Chg.), Railway Board

o/c 14.12.21
(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड

भारतसरकार;Government of India
रेलमंत्रालय;Ministry of Railways
(रेलवेबोर्ड); (Railway Board)

(18)

No. 2021/CEDO/SR/13(LWACCNE)(1) New Delhi, dated 10.05.2021

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

The General Manager,
All Indian Railways

Sub:- Introduction of LHB AC-3 Tier Economy coach **'LWACCNE'** on LHB platform (83 berth capacity) [Maximum Axle Load: **16.25t**] to RCF's Layout Drawing No. LE90067 fitted with pneumatic suspension at the secondary stage on FIAT bogies up to a maximum speed of **160 kmph** over Indian Railways, by Zonal railways on track maintained as per provisions of Indian Railways Permanent Way Manual, June-2020, containing track geometry standards under Para 522

Ref:-(i) RDSO's letter No. SV.FIAT(SC)/Sanction/LWACCNE, Dated 05.03.2021
(ii) CCRS's letter No. Q.12011/20/2020-21&t.w, Dated 25.03.2021

With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of LHB AC-3 Tier Economy coach 'LWACCNE' on LHB platform (83 berth capacity) [Maximum Axle Load: 16.25t] to RCF's Layout DrawingNo. LE90067 fitted with pneumatic suspension at the secondary stage on FIAT bogies up to a maximum speed of 160 kmph over Indian Railways on track maintained as per provisions of Indian Railways Permanent Way Manual, June-2020, containing track geometry standards under Para 522, with the following stipulations :

i. Observance of all conditions laid down in RDSO's Final Speed Certificate No.SV.FIAT(SC)/Sanction/LWACCNE/160kmph, dated 05.03.2021 for operation up to a maximum speed of 160 kmph on track maintained as provisions of Indian Railway Permanent Way manual, June 2020, containing track geometry standards under Para 522. Remarks of the Railway against each para of the Speed Certificate shall be submitted to the Commission before the start of actual operation of rolling stock.

ii. As per para 6.1.2 of Revised Policy Circular-6 Dated 31.10.2018, trains will be introduced in the sections at the speeds as per provision of General Rules 1976–Rule 4.08 1(a).

iii. All the provisions contained in the Railway Board's letter no. 2014/CE-II.TSC/I Pt.1 dated 08.09.2016 regarding track structure for speed beyond 110 kmph should be strictly complied.

iv. For speed up to 130 kmph, Railway shall ensure provision of sturdy fencing at vulnerable locations to prevent accidents related to trespassing. Zonal Railways should also plan subways at suitable locations to avoid trespass and ensure effectiveness of fencing provided for speed beyond 130 kmph and up to

Prem Sagar
10/05/21

160 kmph, Railway shall ensure provision of sturdy fencing all along the track to prevent accidents related to trespassing.

v. Supervisors/officers shall not undertake push trolley inspection and working of rail dolly on the face of 160 kmph trains. Suitable guidelines shall be issued by the Railway in this regard.

vi. For running of train above 130 kmph, Zonal Railways shall ensure public announcements and demarcation through a yellow line on the platforms of run through lines, to alert passengers standing on such platforms.

vii. Observance of all permanent and temporary speed restrictions already in force and /or those that may be imposed from time to time on various accounts.

viii. Maximum speed of coach shall be restricted to speeds proposed therein or the maximum permissible speed of the section whichever is less.

ix. For running of train above 130 kmph, all the turnouts in facing direction shall be laid with thick web switches with provision of clamp type lock. All the crossings shall be CMS crossing. All other turnouts shall be fixed heal curved switch type with CMS.

x. For running of train more than 110 kmph and upto 130 kmph, all turnouts shall be of fixed heel curved switch type with CMS crossings.

xi. Track geometry shall be monitored by Track Recording Car (TRC), Oscillograph Car and OMS at laid down frequency.

xii. Zonal Railway shall interpret the results of runs of OMS, TRC and Oscillograph Car and ensure corrective & preventive action, as considered necessary.

xiii. Regular greasing of all the curves in the section shall be ensured.

xiv. Stretches of existing weak formations (where permanent/temporary speed restriction is imposed), if any, shall be planned to be rehabilitated/strengthen first before permitting higher speed.

xv. Location of bridges on which speed restrictions have been imposed shall be notified by the Railways and incorporated in the working timetable.

xvi. Sleeper on bridges (other than ballasted deck) shall be steel channel/H-beam/Composite sleepers.

xvii. In case of train (with this coach in its composition) having EBD of more than 1 km and non-provision of second distant signal/4 aspect automatic signalling in the section, action as per A&C no.9 of SEM Pt-1 shall be taken.

xviii. Multi Aspect Colour Light Signalling (MACLS) with two Distant Signals or Automatic Signalling shall be provided. If two Distant Signals are provided, the Distant (outer most) signal shall be located at a distance of not less than2 km in rear of the home signal. The inner Distant Signal (existing Distant Signals) can be retained at its present *distance* in rear of the existing home signal. This shall also be applicable to the IBS and the interlocked level crossing gates located in the block sections.

xix. Where Automatic Signalling is not provided, means for verifying complete arrival of train by provision of Block Proving by Axle Counter (BPAC) is necessary on high density routes and for stations provided with central panel interlocking.

xx. Electrical operation of points and means for locking both switches, means for lock detection and independent switch detection by the respective signals shall

Prem Sagar
10/05/24

be ensured. The interlocking between signal and points shall be by electrical or electronic means (PI/RRI/SSI).

xxi. All level crossing gates with in station limit should be manned and interlocked with station signals. All level crossing gates outside station limit should be interlocked depending on the classification of level crossing. All level crossings shall be provided with telecommunication facilities.

xxii. Signalling to protect level crossings should be provided as per Section 'D' (Para 7.43 to 7.46), Chapter-VII of IRSEM. As per para 7.46.2 of IRSEM, there should be no LC gate within the Block Overlap (180m) from the Home signal. If it is there, Home signal should be relocated and placed beyond 180m. No new level crossing should be located within Signal/Block Overlap.

xxiii. Action shall be taken for relocation/modification of engineering signals in consultation with S&T and OHE department of Zonal Railways.

xxiv. Provision of Train Protection Warning System (TPWS) shall be ensured on the route for operation at 160 kmph.

xxv. Suitable and reliable communication shall be provided in the locomotive and guards van for communication between loco pilot, guard and adjacent station master.

xxvi. Before starting the operation, the PCME of the concerned Railway shall certify the track worthiness and safety of the rolling stock and shall also ensure proper maintenance of the rolling stock.

xxvii. Brakes of the rolling stock shall be in good working order during the operation.

xxviii. The Wheel Slide Protection (WSP) device of all the coaches in the rake shall be functional at the starting station.

xxix. LWACCNE coach shall be maintained as per "Maintenance manual for LHB Coaches".

xxx. In case air spring gets deflated, the speed shall be limited to 60 kmph. This has to be manually implemented by the driver. Suitable mechanism shall be in place for indication of deflated spring to train driver.

xxxi. In case of enroute breakage of primary coil spring action as per instructions contained in RDSO letter no. SV.FIAT Spring dt. 08.11.18 shall be taken.

xxxii. Earthing in the coach body & all the panels shall always be properly maintained.

xxxiii. Suitable mechanism to Train driver shall be available in case of isolation of brakes of any bogie.

xxxiv. As stipulated in Railway Board's letter no. 97/M(C)/137/1 Volume-VI, dated 09.06.2004 and RDSO's Report no.CT-20 Rev.2 duly approved by Railway Board's letter no. 2014/CE-II/TK/HS Dated 09.12.2014, the following maintenance facilities are required to be developed by Railways for operation at 160 kmph:

a. Well lighted all weather covered area for under gear examination and maintenance of sub-assemblies.
b. Boundary wall for safety and security of the rake and the facilities.
c. Automatic washing plant at entry point.
d. Wheel profile measurement and re-profiling system.

Prem Sagar
10/05/21

e. In-situ wheel changing facility.
f. Automated and instrumented maintenance system in lieu of existing system based on visual inspection.
g. A separate bay with capacity for lifting and change of complete bogie platform for attention to roof mounted AC equipment.

xxxv. Railways shall ensure proper training to on board staff (mechanical, electrical, commercial etc.) regarding understanding of various aspects of the system like 'Alert', 'Action & Fire 1' should be provided. Suitable pre-recorded announcement regarding action to be taken by passengers in case of fire alarm/announcement from VESDA should be periodically made during run.

xxxvi. Railways must ensure that coach is not permitted to run with non-operative /faulty VESDA.

xxxvii. Railways shall ensure all electrical panels are in locked condition during run.

xxxviii. You are under CCTV surveillance' & 'No Smoking' stickers of suitable size indicating the penalty for such offence should be pasted at appropriate locations in doorway area.

xxxix. Trilingual (Local language, Hindi, English) stickers indication 'Divyangjan' should be pasted at lavatory meant for them.

xl. Training should be imparted to crew regarding action to be taken in case of deflated air spring & breakage of coil springs as per instructions contained in RDSO letter no. SV.AS.ML dt 30/1/2019 & SV.FIAT Spring Dated 08/11/2018.

Prem Sagar
10/03/21

(प्रेमसागरगुप्ता)
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[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address:edceg@rb.railnet.gov.in

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement No. Q.12011/20/2020-21&t-w,Dated 25.03.2021
2. Executive Director (Standards)Motive Power, RDSO, Lucknow
3. Executive Director (Standards) Track-I, RDSO, Lucknow
4. Executive Director ME(Chg.), Railway Board

(प्रेमसागरगुप्ता)
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आज़ादी का अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

Azadi Ka Amrit Mahotsav

No. 2021/CEDO/SR/27(1)

New Delhi, Dated 03.12.2021

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

The General Manager,
All Indian Railways

Sub:- Introduction of BG Self Generating **Non AC Flameless Pantry Car ICF coach [Unique Transportation Code: WGCBF, Max. Axle Load: 16.25]** up to a maximum speed of 110 kmph over Indian Railways, by Zonal railways on track maintained as per provisions of para 522 of Indian Railways Permanent Way Manual, June-2020

Ref:- (i) RDSO letter No. MC/BG/COACH-26/Sanction/WGCBF, dated 03.11.2021 & 22.11.2021
(ii) CCRS letter No. Q.12011/14/2021-22- T.W., dated 15.11.2021
(iii) RDSO's Final Speed Certificate (FSC) No. MC/BG/COACH-26, dated 02.11.2021

With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of BG Self Generating **Non AC Flameless Pantry Car ICF coach [Unique Transportation Code: WGCBF, Max. Axle Load: 16.25]** up to a maximum speed of 110 kmph over Indian Railways, by Zonal railways on track maintained as per provisions of Indian Railways Permanent Way Manual, June-2020, containing track geometry standards under Para 522, with the following stipulations :

i. Observance of all conditions laid down in RDSO's Final Speed Certificate No. MC/BG/COACH-26, dated 02.11.2021. **Remarks of the Railway against each Para of this Speed Certificate shall be submitted to the Commission before the start of actual operation of rolling stock.**
ii. As per Para 6.1.2 of Revised Policy Circular-6 dated 31.10.2018, trains will be introduced in the sections at the speeds as per provision of General Rules 1976–Rule 4.08 1(a).
iii. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.
iv. Maximum speed of the WGCBF coach shall be restricted to speed proposed therein or the maximum permissible speed of the section, whichever is less.
v. While running through a station, speed of the train shall be restricted to the maximum permissible speed as per standard of interlocking provided at the station.
vi. Location of bridges on which speed restrictions have been imposed shall be notified by the Railways and incorporated in the working timetable.
vii. Before starting the operation, the PCME of the concerned Railway shall certify the track worthiness and safety of the rolling stock and shall also ensure proper maintenance of the rolling stock.
viii. Brakes of the rolling stock shall be in good working order during the operation

(प्रेम सागर गुप्ता)
कार्यकारी निदेशक सिविल इंजी. (जी) /रेलवे बोर्ड
[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement No. Q.12011/14/2021-22- T.W., dated 15.11.2021
2. Executive Director (Standards)Motive Power, RDSO, Lucknow.
3. Executive Director (Standards) Track-I, RDSO, Lucknow
4. Executive Director ME(Coaching), Railway Board

Railway Board
Issue with enclosure
Signature
Dated

(प्रेम सागर गुप्ता)
कार्यकारी निदेशक सिविल इंजी. (जी) /रेलवे बोर्ड

आज़ादी का अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

Azadi Ka Amrit Mahotsav

No. 2021/CEDO/SR/27(2)

New Delhi, Dated 03.12.2021

The Director General,
RDSO,
Manak Nagar, -226011.

Sub:- Introduction of BG Self Generating **Non AC Flameless Pantry Car ICF coach [Unique Transportation Code: WGCBF, Max. Axle Load: 16.25]** up to a maximum speed of 110 kmph over Indian Railways, by Zonal railways on track maintained as per provisions of Para 522 of Indian Railways Permanent Way Manual, June-2020

Ref:- (i) Railway Board's letter No. 2021/CEDO/SR/27(1), Dated 03.12.2021
(ii) RDSO letter no. MC/BG/COACH-26/Sanction/WGCBF, dated 03.11.2021 & 22.11.2021.
(iii) CCRS letter No. Q.12011/14/2021-22- T.W., dated 15.11.2021.

With reference to your above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board has been communicated for introduction of BG Self Generating **Non AC Flameless Pantry Car ICF coach [Unique Transportation Code: WGCBF, Max. Axle Load: 16.25]** up to a maximum speed of 110 kmph over Indian Railways, by Zonal railways on track maintained as per provisions of Para 522 of Indian Railways Permanent Way Manual, June-2020, vide Railway Board's letter under reference (i) above. CCRS, while recommending for introduction of this Rolling Stock to Railway Board has suggested ***following measures to be taken for future improvement of above rolling stock*** :

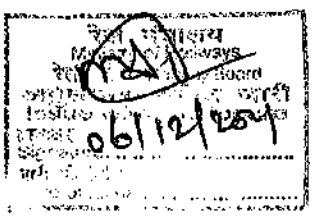
i. Fire Suppression System and water mist type fire extinguisher similar to those fitted in LHB Pantry Cars should be fitted in the proposed rolling stock.
ii. Heating coil should be replaced by induction based heating system during future production of proposed rolling stock.
iii. It may be ensured that coaches undertaken for such conversion have sufficient residual codal life.
iv. Future conversion of such coaches shall also be done as per instructions contained in Northern Railways letter no.M/CWM/Conversion/2021 dated 11.10.2021 and RDSO's letter no.EL/6.8.22 dated 13.20.2021.

03/12/21
(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
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2. Executive Director (Standards)Motive Power, RDSO, Lucknow
3. Executive Director (Standards) Track-I, RDSO, Lucknow

03/12/21
(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड



भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
रेलवे बोर्ड Railway Board

No. 2021/CEDO/SR/26(1) **New Delhi, Dated 01.12.2021**

The Director General
Research Designs & Standards Organization
Manak Nagar, Lucknow-226011.

The General Manager,
All Indian Railways

Sub: Introduction of LHB EOG Air-Conditioned Inspection Carriage-Administrative **'LRAAC' [Maximum Axle Load: 16.25t]** to ICF's Layout Drawing No. LRAAC-9-0-001 Alt.-C fitted with pneumatic suspension (120kN capacity) at the secondary stage on FIAT bogie up to a maximum speed of 160 kmph over Indian Railways, by Zonal railways on track maintained as per Para 522 of Indian Railways Permanent Way Manual, June-2020

Ref: (i) RDSO's Final Speed Certificate (FSC) No. SV.FIAT (SC)/LRAAC/160Kmph, dated 19.11.2020 with its Amendment no. 1 dated 03.03.2021and Amendment No. 2 dated 13.08.2021& Amendment No.3 dated 27.09.2021
(ii) RDSO's letter No. SV.FIAT (SC)/Sanction/LRAAC, dated 13.08.2021 & 21.10.2021
(iii) CCRS letter No. Q.12011/06/2021-22- T.W., Dated 08.10.2021

With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of LHB EOG Air-Conditioned Inspection Carriage-Administrative **'LRAAC' [Maximum Axle Load: 16.25t]** to ICF's Layout Drawing no. LRAAC-9-0-001 Alt.-C fitted with pneumatic suspension (120kN capacity) at the secondary stage on FIAT bogie up to a maximum speed of 160 kmph over Indian Railways, by Zonal railways on track maintained as per Para 522 of Indian Railways Permanent Way Manual, June-2020, with the following stipulations :

i. Observance of all conditions laid down in RDSO's Final Speed Certificate No. SV.FIAT(SC)/LRAAC/160kmph, dated 19.11.2020 with its Amendments no. 1, 2 & 3 for operation up to a maximum speed of 160 kmph on track maintained as provisions of Indian Railway Permanent Way manual, June 2020, containing track geometry standards under Para 522. **Remarks of the Railway against each Para of the Speed Certificate shall be submitted to the Commission before the start of actual operation of rolling stock.**

Prem Sagar
1/12/21

ii. As per Para 6.1.2 of Revised Policy Circular-6 dated 31.10.2018, trains will be introduced in the sections at the speeds as per provision of General Rules 1976–Rule 4.08 1(a).

iii. All the provisions contained in the Railway Board's letter no. 2014/CE-II.TSC/I Pt.1 dated 08.09.2016 regarding track structure for speed beyond 110 kmph should be strictly complied.

iv. For speed up to 130 kmph, Railway shall ensure provision of sturdy fencing at vulnerable locations to prevent accidents related to trespassing. Zonal Railways should also plan subways at suitable location to avoid trespass and ensure effectiveness of fencing provided. For speed beyond 130 kmph and up to 160 kmph, Railway shall ensure provision of sturdy fencing all along the track to prevent accidents related to trespassing.

v. Supervisors/officers shall not undertake push trolley inspection and working of rail dolly on the face of 160 kmph trains. Suitable guidelines shall be issued by the Railway in this regard.

vi. For running of train above 130 kmph, Zonal Railways shall ensure public announcements and demarcation through a yellow line on the platforms of run through lines, to alert passengers standing on such platforms.

vii. Observance of all permanent and temporary speed restrictions already in force and /or those that may be imposed from time to time on various accounts.

viii. Maximum speed of coach shall be restricted to speeds proposed therein or the maximum permissible speed of the section whichever is less.

ix. For running of train above 110 kmph and upto 130 kmph, all the turnouts shall be fixed heel curved switches laid on PSC sleepers layout with CMS crossings.

x. For running of train above 130 kmph and upto 160 kmph, all the turnouts in facing direction shall be laid with thick web switches with provision of clamp type lock. All the crossings shall be CMS crossing. All other turnout shall be of fixed heel curved switch type with CMS crossings.

xi. Track geometry shall be monitored by Track Recording Car (TRC), Oscillograph Car and OMS at laid down frequency.

xii. Zonal Railway shall interpret the results of runs of OMS, TRC and Oscillograph Car and ensure corrective & preventive action, as considered necessary.

xiii. Stretches of existing weak formations (where permanent/temporary speed restriction is imposed), if any, shall be planned to be rehabilitated/strengthen first before permitting higher speed.

xiv. Location of bridges on which speed restrictions have been imposed shall be notified by the Railways and incorporated in the working timetable.

xv. Sleeper on bridges (other than ballasted deck) shall be steel channel/H-beam/Composite sleepers.

xvi. Signalling requirement with respect to maximum permissible speed as per Standard of Interlocking given in Indian Railways Signal Engineering Manual, July 2021, **para no. 7.8.9** shall be followed.

xvii. All level-crossing gates within station limit should be manned and interlocked with station signals. All level crossing gates outside station limit should be interlocked depending on the

Prem Sagar
1/12/21

classification of level crossing. All level crossings shall be provided with telecommunication facilities.

xviii. Action shall be taken for relocation/modification of engineering signals in consultation with S&T and OHE department of Zonal Railways.

xix. Suitable and reliable communication shall be provided in the locomotive and guards van for communication between loco pilot, guard and adjacent station master.

xx. Before starting the operation, the PCME of the concerned Railway shall certify the track worthiness and safety of the rolling stock and shall also ensure proper maintenance of the rolling stock.

xxi. Brakes of the rolling stock shall be in good working order during the operation.

xxii. The Wheel Slide Protection (WSP) device of all the coaches in the rake shall be functional at the starting station.

xxiii. LRAAC coach shall be maintained as per "Maintenance manual for LHB Coaches".

xxiv. In case air spring gets deflated, the speed shall be limited to 60 kmph. This has to be manually implemented by the driver. Suitable mechanism shall be in place for indication of deflated spring to train driver.

xxv. In case of enroute breakage of primary coil spring action as per instructions contained in RDSO letter no. SV.FIAT Spring dt. 08.11.18 shall be taken

xxvi. Earthing in the coach body & all the panels shall always be properly maintained.

xxvii. Suitable mechanism to Train driver shall be available in case of isolation of brakes of any bogie.

xxviii. As stipulated in Railway Board's letter no. 97/M(C)/137/1 Volume-VI, dated 09.06.2004 and RDSO's Report no.CT-20 Rev.2 duly approved by Railway Board's letter no. 2014/CE-II/TK/HS Dated 09.12.2014, the following maintenance facilities are required to be developed by Railways for operation at 160 kmph:

a. Well lighted all weather covered area for under gear examination and maintenance of sub-assemblies.
b. Boundary wall for safety and security of the rake and the facilities.
c. Automatic washing plant at entry point.
d. Wheel profile measurement and re-profiling system.
e. In-situ wheel changing facility.
f. Automated and instrumented maintenance system in lieu of existing system based on visual inspection.
g. A separate bay with capacity for lifting and change of complete bogie platform for attention to roof mounted AC equipments

xxix. Fire extinguishers should be provided in window trailing inspection area.

xxx. Training should be imparted to crew regarding action taken in case of deflated air spring & breakage of coil spring as per instructions contained in RDSO letters no. SV.AS.ML dated 30.10.2019 & SV.FIAT Spring dated 08.11.2018.

Prem Sagar
1/12/21

xxxi. It must be ensured that coach is not permitted to run with non-operational/faulty VESDA.

xxxii. Power couplers at both the ends must be properly secured when places on dummy sockets to prevent any damage to the couplers.

xxxiii. Bell switches should be provided in the inspection area.

Prem Sagar
(प्रेम सागर गुप्ता)

कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड

[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

Copy forwarded for information to:

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement No. Q.12011@06@2021&22&r-fo, Dated 08.10.2021
2. Executive Director (Standards) Motive Power, RDSO, Lucknow
3. Executive Director (Standards) Track-I, RDSO, Lucknow
4. Executive Director ME(Chg.), Railway Board

Prem Sagar
(प्रेम सागर गुप्ता)

कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड

(28)

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
रेलवे बोर्ड Railway Board

No. 2021/CEDO/SR/26(2) **New Delhi, Dated 01.12.2021**

The Director General
Research Designs & Standards Organization
Manak Nagar, Lucknow-226011.

Sub:- Introduction of LHB EOG Air-Conditioned Inspection Carriage-Administrative **'LRAAC' [Maximum Axle Load: 16.25t]** to ICF's Layout Drawing No. LRAAC-9-0-001 Alt.-C fitted with pneumatic suspension (120kN capacity) at the secondary stage on FIAT bogie up to a maximum speed of 160 kmph over Indian Railways, by Zonal railways on track maintained as per Para 522 of Indian Railways Permanent Way Manual, June-2020

Ref : (i) RDSO's letter No. SV.FIAT (SC)/Sanction/LRAAC, Dated 13.08.2021 & 21.10.2021
(ii) CCRS's letter No. Q.12011/06/2021-22- T.W., Dated 08.10.2021
(iii) Railway Board's letter No. 2021/CEDO/SR/26(1), Dated --.11.2021

With reference to your above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board has been communicated for introduction of LHB EOG Air-Conditioned Inspection Carriage-Administrative **'LRAAC' [Maximum Axle Load: 16.25t]** to ICF's Layout Drawing No. LRAAC-9-0-001 Alt.-C fitted with pneumatic suspension (120kN capacity) at the secondary stage on FIAT bogie up to a maximum speed of 160 kmph over Indian Railways, by Zonal railways on track maintained as per Para 522 of Indian Railways Permanent Way Manual, June-2020 vide Railway Board's letter under reference (iii) above. CCRS, while recommending for introduction of this Rolling Stock to Railway Board has suggested ***following measures to be taken for future improvement of the above rolling stock***:

i. Adequate no. of condensed aerosol based stand-alone unit similar to LWACCNE Coach or a superior arrangement may be provided inside the electrical panel/cubicle.
ii. Electrical cubicle similar to LWACCNE coach having smaller width to RDSO specification no. RDSO/PE/SPEC/AC/0200 Rev.1 or similar may be explored/provided in future coaches to create more space in the kitchen area.
iii. Interiors of the coach are very old fashioned with dark coloured veneer which is light absorbing & giving a very dull look inside the coach. **A very competent and suitable consultant for interior design for proper utilization of space for different functions**

Ram Sagar
1/12/21

must be engaged by ICF for interiors of this coach. Consultant should be provided with detailed requirement by IR, based on which he will design size & locations of the master bedroom, guest bed room, lounge, observation room, PS room, staff room ,pantry etc. The consultant will also provide finer details of interiors including electrical & electronic gadgets. These requirements are not exhaustive/complete; any other requirements as deemed necessary by ED/Carriage and ICF/design wing should be narrated and included in the output requirement. This will result in significant cost reduction in the interiors as well as reduced time in the turning out of the coaches. Regular production of such coaches should be taken up only after this activity. It is worthwhile mentioning here that similar procedure is adopted in case of aircraft designing and furnishing to make aero-plane lighter as well as with world class interiors having best utilization of space.

iv. Almirah provided in the master bedroom to be made with double flap door and dressing table may be shifted adjacent to it.

v. LED light provided just above beds in main bedroom are to be suitably relocated.

vi. Provision of Water Mist type fire extinguishers may be explored in place of DCP type fire extinguishers.

vii. Speedometer fitted in the inspection area has a range up to 180 kmph. As oscillation & speed trials are conducted at a speed of 180 kmph, this range must be increased up to at least 200 kmph.

viii. Efforts should be made for better noise & air insulation, especially in lounge area.

ix. Provision of Optical fiber based linear heat detection system may be explored along with the wiring of coach so that hot zones, if developed, are detected before getting converted into smoke or fire.

x. ICF layout drawing no. LRAAC-9-0-001 alt 'c' should be implemented in all future production of this type of coach

RDSO is requested to examine above and take necessary action for *future improvement of the above rolling stocks*. The compliance of the same should also be submitted to CCRS.

Prem Sagar

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

Copy forwarded for information to:

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement No. Q.12011@06@2021&22&r-fo, Dated 08.10.2021
2. Executive Director (Standards)Motive Power, RDSO, Lucknow
3. Executive Director ME(Chg.), Railway Board

Prem Sagar 11/10/21

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड

(30)

आज़ादी का अमृत महोत्सव

पश्चिम रेलवे
Western Railway

Office of the,
Principal Chief Engineer
Western Railway HQ
Churchgate,
Mumbai-400 020

No.W162/30/System Map/W4 (E44367 **Date. 25.11.2021**

Assistant Design Engineer(Civil),
Room No. G44,
Railway Board,
Rail Bhavan,
New Delhi

Sub: Supply of updated System Map of Western Railway as on 31.03.2021.

Ref: Railway Board's letter No.2021/CEDO/Misc./System Map 16.11.2021

With reference to the above, 10 (Ten) Copies of Zonal System Map of western railway corrected up to 31.3.2021 A/O size are sent herewith for your information please.

DA: As above.

25.11.21

Dy. Chief Engineer (Planning)
Western Railway

(31)

NORTHEAST FRONTIER RAILWAY

महाप्रबंधक (कार्य) का कार्यालय
मालीगांव, गुवाहाटी-11
Office of the
General Manager (Works)
Maligaon, Guwahati –11

संख्या /No. W/81/1/Pt.XXIV/W-7/PL दिनांक/Dt. 25-11- 2021

Kishanchand Sharma
Assistant Design Engineer (Civil)
Railway Board, Rail Bhawan.
Room No. G-44
New Delhi.

विषय/Sub:- System Map of N.F.Railway as on 31-03-2021.

संदर्भ/Ref : Rly. Board's Letter No 2021/CEDO/Misc/System Map. Dated:- 16-11-2021

As desired,10(Ten) copies of A0 size System Map of N.F. Railway updated upto 31-03-2021 are enclosed herewith for your disposal please.

DA: 10(Ten) copies of A0 size System Map,

25/11/21
(Surajit Das)
(सुरजित दास)
Dy.CE/Planning
(उप मुख्य अभियन्ता/ योजना)

(32)

East Coast Railway

Head Quarter Office
Rail Sadan, Chandresekharpur
Odisha,Bhubaneswer-17.

No: W1/162/Pt-V/Sys.Map/ 2021/6123

Date: 25.11.2021

To
The Asst.Design Engineer (Civil)
Railway Board
New Delhi.
Room No.G-44

Sub: System Map of East Coast Railway as on 31St March, 2021
Ref: RB's Lr.No.2021/CEDO/Misc/System Map dtd 16.11.2021

With reference to the above referred letter of Railway Board, please find enclosed herewith 10 copies of System Map of East Coast Railway as on 31.03.2021 in A1 size for your reference and record.

Encl: As above

(K.V.V.Narasimha Rao)
Dy.Chief Engineer/Planning 25.11.21
For Chief Planning & Design Engineer

आज़ादी का अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

Azadi Ka Amrit Mahotsav

No. 2021/CEDO/SD/RS/07 **New Delhi, Dated 24.11.2021**

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub : Condonation of infringement to Indian Railway Schedule of Dimensions (BG), Revised-2004 by **floor height (1676mm insted of 1345mm)** of Switch Rail Grinding Machine (SRGM), Model No. "RGI Series 20 Stone Rail Grinder" as per drawing No. 246953 supplied by M/s LORAM, USA for operation on Indian Railways

Ref (i) RDSO letters no. CT/TMM/GENERAL Dated 18.05.2021
(ii) CCRS letter no. Q.14011/02/2020–21–त.वि. , Dated 29.07.2021

With reference to RDSO above application no. CT/TMM/GENERAL dated 18.05.2021{ref. (i)}, sent through the Chief Commissioner of Railway Safety, Lucknow; the sanction of Ministry of Railways, Railway Board is hereby communicated for condonation of infringement w.r.t. Clause-9, Chapter-IV(A), Schedule-I of Indian Railway Schedule of Dimensions (BG), Revised-2004 - **floor height 1676mm instead of 1345mm [infringement by 331mm]** of Switch Rail Grinding Machine (SRGM), Model No. "RGI Series 20 Stone Rail Grinder" as per drawing No. 246953 supplied by M/s LORAM, USA for operation on Indian Railways, as shown in details enclosed with above mentioned application.

रेल मंत्रालय Ministry of Railways 25/11/21

o/c

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Compound of DRM/NER, Ashok Marg, Lucknow-1 w.r.t. his endorsement No. Q.14011/02/2020–21–त.वि, Dated 29.07.2021
2. ED Standards (Track-1), RDSO, Manak Nagar,Lucknow
3. EDTk (M&Mc)/Railway Board, New Delhi.

o/c

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड

आज़ादी का अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

Azadi Ka Amrit Mahotsav

(34)

⇒ (3375749)

No. 2021/CEDO/SR/27 New Delhi, Dated 22.11.2021

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Introduction of BG Self Generating **Non AC Flameless Pantry Car ICF coach [Unique Transportation Code: WGCBF, Max. Axle Load: 16.25]** up to a maximum speed of 110 kmph over Indian Railways, by Zonal railways on track maintained as per provisions of Para 522 of Indian Railways Permanent Way Manual, June-2020

Ref: (i) CCRS letter No. Q.12011/14/2021-22- T.W., dated 15.11.21

(ii) RDSO's letter No. MC/BG/COACH-26/Sanction/WGCBF, dated 03.11.21
(iii) RDSO's Final Speed Certificate (FSC) No. MC/BG/COACH-26, dated 02.11.2021

Chief Commissioner of Railway Safety, Lucknow; while forwarding the case for the sanction of the Railway Board for introduction of BG Self Generating **Non AC Flameless Pantry Car ICF coach [Unique Transportation Code: WGCBF, Max. Axle Load: 16.25]** up to a maximum speed of 110 kmph over Indian Railways, by Zonal railways on track maintained as per provisions of Para 522 of Indian Railways Permanent Way Manual, June-2020, has recommended certain measures to be taken before introduction of the above rolling stocks, reproduced as under:

i. Wire mesh should be provided below exhaust fan fitted in chimneys provided over heating coils.
ii. Three pole main switch with cut out fuses is provided for external power supply which is cumbersome to connect. Instead of this, arrangement similar to AC coaches for external power supply should be provided.
iii. First Aid box should be provided in the coach before its commercial operation.
iv. Thermostat of deep freezer was not properly working. It should be rectified and proper indication on the knob should be provided.
v. All the doors of equipment provided in the kitchen area should be rectified to close properly.
vi. Minimum 6 number fire extinguishers should be provided.

RDSO is requested to examine the issues involved and submit comments at the earliest.

DA: as above.

Prem Sagar 22.11.21

(प्रेम सागर गुप्ता)
कार्यकारी निदेशक / सिविल इंजीनियरिंग(जी) / रेलवे बोर्ड
[Rly no. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

23/11/2021

Copy forwarded for information to:

1. Executive Director (Standards) Carriage, RDSO, Lucknow
2. Executive Director (Standards) Motive Power, RDSO, Lucknow
3. Executive Director ME(Chg), Railway Board

आज़ादी का अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

Azadi Ka Amrit Mahotsav

No. 2021/CEDO/SD/IRSOD/O/ACS-a **New Delhi, dated 17.11.2021**

The Commissioner of Railway Safety,
Central Circle,
Mumbai.

Sub : Temporary Condonation of **Vertical infringement** w.r.t IRSOD (BG) Revised, 2004, in the existing heavy overhead structure, ROB No. 454/01 at Km. 454/4-5 in Solapur Yard of Solapur Division of Cenral Railway in connection with Railway Electrification

Ref: CCRS letter No. Q.11011/002/2021-22-T.W., dated 02.11.2021

1. IRSOD Schedule-II, Item no.7 contain provisions of Schedule I of earlier IRSOD, 1973. These are not the minimum dimensions prescribed in Schedule II of IRSOD, 2004. The minimum dimensions for vertical clearance are covered in Item No.5(a) & 5(b) for rolling stock of height 4265mm and 4725mm respectively.

2. As such, the condonation of vertical infringement of ROB No. 454/01 in Solapur yard of Central Railway is within the power of CRS, as per ACS No. 25 of IRSOD, 2004.

3. The case is accordingly return back to Commissioner of Railway Safety.

17/11/2021

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/ रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Ashok Marg, Lucknow
2. GM Central Railway Mumbai, CSTM
3. EDRE Railway Board

रेल मंत्रालय
Ministry of Railways
रेलवे बोर्ड
Railway Board
हस्ताक्षर
Signature
जारी की तिथि
Date of Issue

(36)

भारत सरकार Government Of India
रेल मंत्रालय Ministry Of Railways
(रेलवे बोर्ड) (Railway Board)

No. 2021/CEDO/Misc./System Map New Delhi,Dated 16.11.2021

Principal Chief Engineer,s
ER,ECR,ECoR,NER,NFR,SR,SECR,WR

Sub:- System Map Corrected up to 31.3.2021

It is to inform you that system map of your railway corrected up to 31.3.2021 is not received this office so far.

Please send 10 copies immediately.

o/c

(Kishanchand Sharma)
Assistant Design Engineer(Civil)
Room No.G-44

o/c
Issue Pls
16/11/21

Ministry of Railways
16/11/21

आज़ादी का अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

Azadi Ka Amrit Mahotsav

No. 2021/CEDO/SD/RS/08 **New Delhi, Dated 08.11.2021**

The Director General
Research Designs & Standards
Organisation
Manak Nagar, Lucknow-
226011.

Sub: Condonation of infringement to IRSOD (BG)-2004 and EDFC/WDFC-SOD, for movement of Non-ISO Dwarf Containers (1930mm high and 2600 wide) each/combination in double stack configuration on BG Low Platform Bogie Longer Container Flat Wagon type **BLL** (Car A & B) [existing 20.32t axle load wagon] and **BLLM** (Car A & B) [new variant 22t axle load wagon], on DSDC routes over Indian Railways and routes of Eastern & Western Dedicated Freight Corridor of DFCCIL

Ref: (i) RDSO letters no. CT/CONTR/BG/MG, dated 01.06.2021 for BLL and letter of even number dated 01.06.2021 for BLLM
(ii) RDSO letters no. CT/CONTR/BG/MG, dated 25.08.2021
(iii) CCRS letter no. Q-14011/01/2021-22-t-w/BLL , dated 15.09.2021 for BLL and letter no. Q-14011/01/2021-22-t-w/BLLM, dated 15.09.2021 for BLLM

With reference to RDSO above applications {ref.(i) & (ii)}, sent through the Chief Commissioner of Railway Safety, Lucknow; the sanction of Ministry of Railways, Railway Board is hereby communicated for condonation of infringement w.r.t. Chapter-IV(A), *Schedule-I of IRSOD (BG) Revised, 2004* and *EDFC/WDFC-SOD* for movement of Dwarf Containers (1930mm high and 2600 wide) each/combination in double stack configuration on BG Low Platform Bogie Longer Container Flat Wagon type **BLL** (Car A & B) [existing 20.32t axle load wagon] and **BLLM** (Car A & B) [new variant 22t axle load wagon] to RITES Drg. No. 42-A-2020-S/01 & 42-B-2020-S/01 for BLL/BLLM (Car-A) & BLL/BLLM (Car-B) respectively, as shown in details enclosed with above mentioned applications and reproduced as under :

I) **IRSOD Chapter IV (A)**

(A) **Clause 2(ii)** -Minimum diameter on the tread of new carriage or wagon wheel, measured at 63.5 mm from wheel gauge face, by 74 mm (840mm instead of 914mm).

(B) **Clause 11** -Minimum height above rail level for floor of fully loaded goods vehicle, by 212 mm in loaded & 137mm in empty condition (933mm/1008mm in loaded/empty condition instead of 1145mm).

(C) **Clause 14** -Minimum height above rail level for centres of buffers & CBC couplers when fully loaded, by 260 mm in loaded & 185mm in empty condition (770mm/845mm in loaded/empty condition instead of 1030mm).

(D) **Clause 29** – Maximum height above rail level for a width of 1015mm on either side of the centre of unloaded vehicles, by 611 mm (4876 mm instead of 4265mm).

(E) **Clause 30** – Maximum height above rail level at sides of unloaded vehicles, by 1035 mm (4876 mm instead of 3735mm).

8/11/21

II) **EDFC-SOD**

Clause 4.3 -Minimum height above rail level for centres of buffers & CBC couplers when fully loaded, by 260 mm in loaded & 185mm in empty condition (770mm/845mm in loaded/empty condition instead of 1030mm).

III) **WDFC-SOD**

Clause 11.3 -Minimum height above rail level for centres of buffers & CBC couplers when fully loaded, by 260 mm in loaded & 185mm in empty condition (770mm/845mm in loaded/empty condition instead of 1030mm).

The above condonation is subject to following stipulations:

i. Locations with restricted height overhead structures shall be identified by the Zonal Railway. Zonal Railway MUST ensure the removal of any infringement before starting operation of 42'long Non-ISO containers double stack dwarf containers on **BLL/ BLLM** (Car A & B) wagons.

ii. Various clearances pertaining to fixed structures, OHE wires and OHE structures, as recommended by RDSO in Paras 1, 2 & 3 of Note mentioned in Annexure-I of RDSO revised applications no. CT/CONTR/BG/MG, dated 25.08.2021 shall be adhered to before introducing operation of subject rolling stock.

iii. All the necessary conditions related to infringements and various clearances to be ensured, SHALL form part of the RDSO Speed Certificate whenever issued for the operation of 42' long Non-ISO containers in double stack on BLL/BLLM (Car A & B) wagons on DSDC routes of Indian Railways.

iv. Before introduction of 42' long dwarf container on above routes, Electrical Inspector (EIG) of the concerned Zonal Railways shall approve special clearance study report of restricted head room for overline structures on particular line/track in the route either already electrified or planned to be electrified.

v. RDSO Drg. No. 42-A-2020-S/01 & 42-B-2020-S/01 for BLL/BLLM (Car-A) & BLL/BLLM (Car-B) respectively has mention C.G. from R.L. (Loaded with two nos. of 20' containers) in place of 42' containers. This may be corrected & the revised drawings issued by RDSO.

vi. For movement of subject rolling stock in any section of the Indian Railway, 'Policy instruction for running Double Stack Dwarf Containers (DSDC) over Zonal Railways', issued vide letter no. 2019/CEDO/SR/07/0, dated 18.04.2019, shall be applicable for above rolling stock also.

Issue Pls
9/11/2021

Ministry of Railways
Railway Board
Issued with No. ... Dated 9/11/...
Signature
Designation
Date of issue

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

Copy forwarded for information to:

1. The Chief Commissioner of Railway Safety, Compound of DRM/NER, Ashok Marg, Lucknow-1 w.r.t. his endorsement no. Q-14011/01/2021-22-t-w/BLL, dated 15.09.2021 for **BLL** and no.Q-14011/01/2021-22-t-w/BLLM, dated 15.09.2021 for **BLLM**
2. Commissioner of Railway Safety, all Circles
3. ED Standards (Track-1), RDSO, Manak Nagar,Lucknow
4. EDME(Freight)/Railway Board, New Delhi

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड

(39)

आज़ादी का अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड Railway Board)

Azadi Ka Amrit Mahotsav

No. 2021/CEDO/SR/19 **New Delhi, Dated 01.11.2021**

The Director General,
RDSO,
Manak Nagar, -226011

The General Manager,
All Indian Railways

Sub:- Increase of sanctioned maximum speed of Broad-Gauge Rail Borne Maintenance Vehicle (RBMV), Model No. RBMV.01 [Unique Transportation Code: **RBMVP**; Maximum Axle Load **18.25t**] to M/s Phooltas's Drawing No. RBMV01-00 01.00 Rev.03, **up to maximum speed of 105 kmph** when running on its own power as well as in train formation as a dead vehicle from existing maximum sanctioned speed of 65 kmph, over Indian Railway BG routes

Ref: (i) RDSO's Final Speed Certificate (FSC) no. TM/HM/11/7/RBMV, Dated 23.03.2021
(ii) RDSO's letter no. TM/HM/11/7/RBMV, Dated 05.04.2021
(iii) CCRS office letter Q.11017/01/2013-14.t.w, Dated 29.07.2021
(iv) Railway Board's letter no. 2014/CEDO/SR/02, Dated 18.02.2014

With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of Broad-Gauge Rail Borne Maintenance Vehicle (RBMV), Model No. RBMV.01 **[Unique Transportation Code: RBMVP; Maximum Axle Load 18.25t]** to M/s Phooltas's Drawing No. RBMV01-00 01.00 Rev.03, up to a **maximum speed of 105 kmph** when running on its own power as well as in train formation as a dead vehicle from existing maximum sanctioned speed of 65 kmph over Indian Railway BG routes, by Zonal Railways, with the following stipulations:

A i) Observance of all conditions laid down in RDSO's Final Speed Certificate no.TM/HM/11/7/RBMV, Dated 23.03.2021 for operation up to a maximum speed of 105 kmph on its own power as well as in train formation. **Remarks of the Railway against each para of the Speed Certificate shall be submitted to the Commission before start of actual operation of rolling stock.**

ii) Observance of all permanent and temporary speed restrictions already in force and /or those that may be imposed from time to time on various accounts.

O/C
ISSUE PLS
2/11/2021

Ministry of Railways
रेलवे बोर्ड
Railway Board
अनुलग्नक सहित जारी
Issue with Enclosure
हस्ताक्षर
Signature
जारी की तिथि
Date of Issue

Prem Sagar
01.11.21

iii) Location of bridges on which speed restrictions have been imposed shall be notified by the Railways and incorporated in the working timetable.

iv) In case of locomotive/rolling stock/train (having this machine in its composition) having EBD of more than 1 km and non-provision of second distant signal/4 Aspect Automatic Signalling in the section, action as per A&C no. 9 of SEM Pt-I shall be taken.

v) Before initiating the movement of the machine, Chief Engineer/Track Machine of the concerned Railway shall arrange to certify the track worthiness and safety of the Rolling stock and they shall also ensure proper maintenance of the rolling stock.

vi) Brakes of the machine shall be in good working order during the operation.

vii) When the machine is being moved either on its own power or hauled in train, it shall be ensured that all the protruding parts are withdrawn and suitably locked, so that during the run, there is no possibility of any infringement occurring to the standard moving dimensions.

viii) RBMVP machine shall be maintained as per 'Maintenance manual for Rail Borne Maintenance Vehicle' issued by RDSO.

B. This supersedes Railway Board's letter no. 2014/CEDO/SR/02, Dated 18.02.2014.

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement No. Q.11017/01/2013-14. T.W, Dated 29.07.21
2. Executive Director (Standards) Motive Power, RDSO, Lucknow
3. Executive Director (Standards) Track-I, RDSO, Lucknow
4. Executive Director Tk (M&Mc), Railway Board

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

(41)

आज़ादी का अमृत महोत्सव

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
रेलवे बोर्ड Railway Board

आज़ादी का अमृत महोत्सव

No. 2021/CEDO/SD/IRSOD/O/ACS_b **New Delhi, Dated 26.10.2021**

Addressed to:
(As per list mentioned below)

Sub: Addendum & Corrigendum Slip (ACS) No. 32 to the Indian Railways Schedule of Dimensions 1676 mm Gauge (BG) Revised, 2004

The Ministry of Railways (Railway Board) have decided that Schedule-I of Indian Railways Schedule of Dimensions 1676 mm Gauge (BG) Revised, 2004 be amended as shown in the enclosed Addendum & Corrigendum Slip (ACS) No. 32.

Enclosure: **ACS No. 32**

Prem Sagar
26.10.21
o/c (प्रेम सागर गुप्ता)

कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

List for Distribution:
1. General Managers, All Indian Railways & Production Units
2. Principal Chief Engineers and Chief Administrative Officers (Con.), All Indian Railways
3. Director General, RDSO, Manak Nagar, Lucknow
4. Director General, NAIR, Vadodara
5. Chief Commissioner of Railway Safety, Ashok Marg, Lucknow
6. Commissioner of Railway Safety, All Circles
7. Director, IRICEN, Rail Path, Pune – 411001 (Maharashtra)
8. Director, IRIEEN, P.B. No. 233, Nasik Road – 422101 (Maharashtra)
9. Director, IRISET, Taar Naka Road, Lalla Guda, Secunderabad
10. Director, IRIMEE, Jamalpur – 811214 (Bihar)
11. Director, IRITM, IRITM Campus, Manak Nagar, Lucknow

Copy to:
1. Concerned PSO for kind information of Chairman cum CEO, M/Infra, M/T&RS, M/O&BD, M/Finance, Railway Board
2. Chief Vigilance Officers, All Indian Railways.
3. DG(RHS), DG(RPF), AM(CE), AM(Works), AM(B), AM(Elec.), AM(RS), AM(ME), AM/Tele, AM/C&IS, AM/Sig., AM(Plg.), AM/L&A, PED(B&S), PED(Vigilance), EDCE(G), PEDCE(P), EDTK(M&MC), EDCE(B&S), EDF(X)-I, EDF(X)-II, ED(Works), EDW(Plg.), ED/Project(Mon.), ED(L&A), ED(PSU), EDVE, ED(Safety), ED (Sig. Dev.), ED(Tele), EDRS(G), EDRE, EDEE(G), EDFE, EDE(N), ED(Accounts), ED/T&MPP, EDME(Chg.), EDME(Frt.), ED/Plg., JS(conf), JS(P), JS(G), JS(D), Vigilance-III, Vig(Conf) of Railway Board.

Addendum & Corrigendum Slip (ACS) No. 32
to
Schedule-I, Indian Railways Schedule of Dimensions (B.G.) Revised, 2004

1. **Note (1) in the beginning of Chapter-II - Station Yards, Schedule-I** shall be read as under:

   (1) The expression "in station" as mentioned in Diagram No. 2 is to be interpreted in accordance with the definition of "station limits" given in Chapter I, Part I, of the General Rules for open lines, *viz* "station limits" means the portion of a railway which is under the control of a station master and is situated between the outermost signals of the station.

2. **Note (e) of Item No.2 of Chapter-II - Station Yards, Schedule-I** shall be read as under:

   (e) For above purpose, "Station yard" means:
   - (i) On single line to a distance of 50 m beyond Stock Rail Joint of outermost points at either end of the station.
   - (ii) On double line where 2 Aspect Signaling is provided:
     For each line, from Home Signal to a distance of 50 m beyond - Stock Rail Joint of outermost facing point or Fouling Mark of outermost trailing point or up to Last Stop Signal where there is no point.
   - (iii) On double or multiple lines where Multiple Aspect Signaling is provided, for each line:
     At either end, to a distance of 50 m beyond Stock Rail Joint of outermost facing point or to a distance of 50 m beyond Fouling Mark of outermost trailing point, as the case may be; or where there are no points on that line, from Block Section Limit Board to Last Stop Signal.

o/c Prem Sagar
26.10.21

(43)

भारत सरकार **Government of India**
रेल मंत्रालय **Ministry of Railways**
(रेलवे बोर्ड) **(Railway Board)**

No. 2021/CEDO/SR/26 **New Delhi, Dated 20.10.2021**

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Introduction of LHB EOG Air-Conditioned Inspection Carriage-Administrative **'LRAAC' [Maximum Axle Load: 16.25t]** to RCF's Layout Drawing No. LRAAC-9-0-001 Alt.-C fitted with pneumatic suspension (120kN capacity) at the secondary stage on FIAT bogie up to a maximum speed of 160 kmph over Indian Railways, by Zonal railways on track maintained as per provisions of Indian Railways Permanent Way Manual, June-2020, containing track geometry standards under Para 522

Ref: (i) CCRS letter No. Q.12011/06/2021-22- T.W., Dated 08.10.2021
(ii) RDSO's letter No. SV.FIAT(SC)/Sanction/LRAAC, Dated 13.08.2021

Chief Commissioner of Railway Safety, Lucknow; while forwarding the case for the sanction of the Railway Board for introduction of LHB EOG Air-Conditioned Inspection Carriage-Administrative **'LRAAC' [Maximum Axle Load: 16.25t]** to RCF's Layout Drawing No. LRAAC-9-0-001 Alt.-C fitted with pneumatic suspension (120kN capacity) at the secondary stage on FIAT bogie up to a maximum speed of 160 kmph over Indian Railways, by Zonal railways, has recommended certain measures to be taken before introduction of the above rolling stocks, reproduced as under: *(copy enclosed)*

1. Fire extinguishers should be provided in window trailing inspection area.
2. Training should be imparted to crew regarding action taken in case of deflated air spring & breakage of coil spring as per instructions contained in RDSO letters no. SV.AS.ML dated 30.10.2019 & SV.FIAT Spring dated 08.11.2018.
3. It must be ensured that coach is not permitted to run with non-operational/faulty VESDA.
4. During speed trial, lot of hot air, dust and noise was coming inside the coach from doors making Air conditioning less effective. Proper sealing by suitable gasketting or any other method should be done.
5. Battery charger MCB is provided inside the electrical panel which is difficult to operate. It should be brought in front of the panel.

6. These is mechanical interlocking provided in the 750 volt panel door so that it can be opened only after switching off 750 volt supply and earthing. During inspection interlocking was not functioning as the door was wrongly closed. Proper instructions should be placed on the door panel regarding operations of doors and interlocking.

7. Power couplers at both the ends must be properly secured when places on dummy sockets to prevent any damage to the couplers.

8. Bell switches are not provided in the inspection area. These should be provided.

RDSO is requested to examine the issues involved and submit comments at the earliest.

DA: as above.

Prem Sagar
20.10.21
(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

No. 2021/CEDO/SR/26 **New Delhi, Dated20.10.2021**

Copy forwarded for information to :

1. Executive Director (Standards) Motive Power, RDSO, Lucknow
2. Executive Director (Standards) Track-I, RDSO, Lucknow

ole
Issue pls
20/10/2021

रेल मंत्रालय
Ministry of Railways
रेलवे बोर्ड
Railway Board
अनुरक्षक द्वारा जारी
Issue with Endorsement
हस्ताक्षर
Signature
जारी की तिथि
Date of issue 21/10/21

(45)

File No. 2021/CEDO/SB/26 (Computer No. 23718511)

997556/2021/CEDO/SB/26 SECTION

भारत सरकार
नागर विमानन मंत्रालय
(रेल संरक्षा आयोग)
GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

कोर/फो.: 0522-2233087, 2233108 (P&T)
N.E.Rly. 31-140, N.Rly. 23-290
फैक्स/Fax-0522-2233095, 2233087
E-mail : chiefcom@rediffmail.com

पूर्वोत्तर रेलवे, मं.रे.प्र. कार्यालय परिसर
16, अशोक मार्ग, लखनऊ-226001

N.E. Railway, DRM OFFICE CAMPUS
16, Ashok Marg, Lucknow-226 001

संख्या–Q.12011/06/2021–22–त.वि

दिनांक–08.10.2021

सेवा में,

सचिव (सिविल इंजी.)
रेल मंत्रालय (रेलवे बोर्ड)
रेल भवन
नई दिल्ली

[ध्यानार्थ:EDCE(G)]

विषय: Operation of LHB EOG Air-Conditioned Inspection Carriage-Administrative **'LRAAC' [Maximum Axle Load: 16.25t]** to RCF's Layout Drawing No. LRAAC-9-0-001 Alt.-C fitted with pneumatic suspension (120kN capacity) at the secondary stage on FIAT bogies on IR system for use by Zonal Railways at maximum speed up to 160 Kmph on track maintained as per provisions of Indian Railways Permanent Way Manual, June 2020, containing track geometry standards under Para 522

संदर्भ: (i) DG/RDSO's letter No. SV.FIAT(SC)/Sanction/LRAAC, dated 13.08.2021
(ii) RDSO's Final Speed Certificate (FSC) No. SV.FIAT(SC)/LRAAC/160Kmph, dated 19.11.2020 with its Amendment no. 1 dt.. 03.03.2021 and Amendment no. 2 dt. 13.08.2021 & Amendment No.3 dt. 27.09.2021
(iii) This office's letter no. Q.12011/06/2021-22-T.W. Dated 23.08.2021
(iv) RDSO's letter no. SV.FIAT(SC), Dated 28.09.2021
(v) RDSO's letter no. SV.FIAT(SC), Dated 29.09.2021

Vide reference (i), RDSO has approached this office seeking Railway Board's sanction for introduction of subject rolling stock up to a maximum speed of 160 Kmph over Indian Railways on track maintained as per provisions of Indian Railways Permanent Way Manual, June-2020 containing track geometry standards under Para 522 for use by Railways on the basis of RDSO's Final Speed Certificate mentioned under reference (ii). Vide reference (iii) [copy enclosed], RDSO was asked to furnish certain clarifications on the subject case. Clarifications on the issues were given by RDSO to this office vide reference (iv) & (v)[copies enclosed].

Statutory inspection of the subject rolling stock by the CCRS was carried out on 05.08.2021 at Safdarjung Railway Station (DSJ)/ Northern Railway, New Delhi, followed by Speed Trial on 06.10.2021 in DSJ-MTJ section of NR & NCR. Inspection report of the wagon is enclosed as **Annexure-1**

Case has been examined by this office and is found to be in order. Accordingly, the same is being forwarded to Railway Board for necessary action with the recommendation for the sanction of the Central Government for operation of LHB EOG Air-Conditioned Inspection Carriage-Administrative **'LRAAC' [Maximum Axle Load: 16.25t]** to RCF's Layout Drawing No. LRAAC-9-0-001 Alt.-C fitted with pneumatic suspension (120kN capacity) at the secondary stage on FIAT bogies on IR system for use by Zonal Railways at maximum speed up to **160 [ONE HUNDRED SIXTY]** Kmph on track maintained as per provisions of Indian Railways Permanent Way Manual, June 2020, containing track geometry standards under Para 522 with conditions mentioned in **Annexure-2**

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Observations from CCRS Inspection Report about 'Measures to be taken before introduction of Air-Conditioned Inspection Carriage-Administrative 'LRAAC' are enclosed as **Annexure-3.** The compliance of the same should also be submitted to the Commission.

Further, 'Measures for future improvement of the subject rolling stock' are attached as **Annexure-4.**

This is issued with the approval of Chief Commissioner of Railway Safety.

AHMAD NADEEM SIDDIQUI
Digitally signed by AHMAD NADEEM SIDDIQUI
Date: 2021.10.08 15:50:03 +05'30'

(अहमद नदीम सिद्दीकी)
उप रेल संरक्षा आयुक्त (यांत्रिक)

संलग्नक: यथोक्त

प्रतिलिपि:
महानिदेशक (सवारी डिब्बा)
सवारी डिब्बा निदेशालय (एनेक्सी–1),
अनुसंधान, अभिकल्प एवं मानक संगठन,
मानक नगर, लखनऊ–226011

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[of CCRS Office's Letter No. Q.12011/06/2020–21–त.वि., Dated 08.10.2021]

Measures to be taken before introduction of Air-Conditioned Inspection Carriage-Administrative 'LRAAC'

Statutory inspection of the rolling stock by the CCRS was carried out on 05.10.2021 at Delhi Safdarjung Station, Northern Railway. Para 2 of CCRS Inspection Report which suggests the measures to be taken before introduction of subject rolling stock is reproduced below for taking necessary action for their implementation:

1. Fire extinguishers should be provided in window trailing inspection area.
2. Training should be imparted to crew regarding action taken in case of deflated air spring & breakage of coil spring as per instructions contained in RDSO letters no. SV.AS.ML dated 30.10.2019 & SV.FIAT Spring dated 08.11.2018.
3. It must be ensured that coach is not permitted to run with non-operational/faulty VESDA.
4. During speed trial, lot of hot air, dust and noise was coming inside the coach from doors making Air conditioning less effective. Proper sealing by suitable gasketting or any other method should be done.
5. Battery charger MCB is provided inside the electrical panel which is difficult to operate. It should be brought in front of the panel.
6. These is mechanical interlocking provided in the 750 volt panel door so that it can be opened only after switching off 750 volt supply and earthing. During inspection interlocking was not functioning as the door was wrongly closed. Proper instructions should be placed on the door panel regarding operations of doors and interlocking.
7. Power couplers at both the ends must be properly secured when places on dummy sockets to prevent any damage to the couplers.
8. Bell switches are not provided in the inspection area. These should be provided.

***

AHMAD NADEEM SIDDIQUI

Digitally signed by AHMAD NADEEM SIDDIQUI
Date: 2021.10.08 15:51:30 +05'30'

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(48)

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड) (Railway Board)

No. 2021/CEDO/SR/24 New Delhi, Dated 20.10.2021

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Introduction of **12' high containers** (3658mm height and 2438mm width) **in single stack** in empty and loaded condition, on **20.32t axle load**, Broad Gauge Bogie Low Platform Bogie Container Flat wagon type BLC (A-Car & B-Car) up to a maximum speed of **75 kmph** over **DSDC routes of Indian Railways,** by Zonal Railways and **Eastern Freight Corridor & Western Freight Corridor of DFCCIL routes,** by DFCCIL

Ref : (i) RDSO's Final Speed Certificate (FSC) No. MW/Container, Dated 03.09.2021
(ii) RDSO's letter No. MW/Container, Dated 03.09.2021
(iii) CCRS office letter No.Q.12011/13/2021-22/ T.W, Dated 08.10.2021

Chief Commissioner of Railway Safety, Lucknow; while forwarding the case for the sanction of the Railway Board for introduction of **12' high containers** (3658mm height and 2438mm width) **in single stack** in empty and loaded condition, on **20.32t axle load**, Broad Gauge Bogie Low Platform Bogie Container Flat wagon type BLC (A-Car & B-Car) up to a maximum speed of **75 kmph** over **DSDC routes of Indian Railways,** by Zonal Railways and **Eastern Freight Corridor & Western Freight Corridor of DFCCIL routes,** by DFCCIL has recommended certain measures to be taken before commercial operation of the rolling stock, reproduced as under (Annexure-I of CCRS above letter, copy enclosed):

iii. Para 3.3.1 of Final Speed Certificate may be modified as "Provisions of GR, SR, IRSOD, DFC-SOD, SEM & all extant instructions issued from time to time as applicable shall be complied with".

xii. In the Annexure –I of Final Speed Certificate, the Carrying Capacity has been mentioned as 81.28t in place of 62.16t. RDSO may therefore issue amendment before introduction of subject rolling stock.

xiii. As BLC (A-Car & B-Car) wagon with ISO containers in single stack is fit to run at 100 Kmph over IR, oscillation trials of BLC(A-Car & B-Car) with 12' high non ISO containers may be conducted early to ascertain &utilise the potential of running these wagons at higher speed over IR and DFC routes.

o/e
Issue pls
20/10/2021

Ministry of Railways
रेलवे बोर्ड
Railway Board
अनुलग्नक सहित जारी
Issue with Enclosure
हस्ताक्षर
Signature
जारी की तिथि
Date of Issue

xiv. Wheel flat limits for operation of BLC (A-Car & B-Car) wagon for operation over DSDC routes of IR and DFC routes have not been mentioned in Final Speed Certificate dated 03.09.2021. Suitable Amendment in Final Speed Certificate is required to be issued before commercial operation of the rolling stock.

xv. Condonation of infringement of clauses of DFC-SOD by Railway Board is not available. It is required to get the infringing clauses of DFC-SOD of the BLC (A-Car & B-Car) condoned by Railway Board before commercial operation of the rolling stock.

xvi. Title of Drg. No. WD-20020-S-02 & WD-20020-S-03 for BLC/BLCM(A-Car) &BLC/BLCM(B-Car) respectively is 'For Condonation Only' whereas the subject case is of introduction of aforementioned rolling stock. In view of the above, detailed manufacturing drawings may be issued and speed certificate amended accordingly before the commercial introduction of the subject rolling stock

RDSO is requested to examine the issues involved and take necessary action at the earliest.

DA: as above.

Prem Sagar
20/10/21
(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

Copy forwarded for information to:

1. Executive Director (Standards) Motive Power, RDSO, Lucknow
2. Executive Director ME (Fr.), Railway Board

नागर विमानन मंत्रालय
(रेल संरक्षा आयोग)
GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

फोन/Ph. 0522-2233087, 2233108 (P&T)
N.E.Rly. 31-140, N.Rly. 23-290
फैक्स/Fax-0522-2233095, 2233087
E-mail : chiefcom@rediffmail.com

पूर्वोत्तर रेलवे, मं.रे.प्र. कार्यालय परिसर
16, अशोक मार्ग, लखनऊ-226001

N.E. Railway, DRM OFFICE CAMPUS
16, Ashok Marg, Lucknow-226 001

संख्या–Q.12011/13/2021–22–त.वि

दिनांक–08-10-2021

सेवा में,

सचिव (सिविल इंजी.)
रेल मंत्रालय (रेलवे बोर्ड)
रेल भवन
नई दिल्ली

[ध्यानार्थ:EDCE(G)]

विषय: Introduction of **12' high containers** (3658mm height and 2438mm width) **in single stack** in empty and loaded condition, on **20.32t axle load**, Broad Gauge Bogie Low Platform Bogie Container Flat wagon type BLC (A-Car & B-Car) up to a maximum speed of **75 kmph** over **DSDC routes of Indian Railway** and **Eastern Freight Corridor & Western Freight Corridor of DFCCIL routes**

संदर्भ: (i) DG/RDSO's letter No. MW/Container, Dated 03.09.2021
(ii) RDSO's Final Speed Certificate (FSC) no. MW/Container, Dated 03.09.2021

Vide reference (i), RDSO has approached this office seeking Railway Board's sanction for introduction of subject rolling stock at maximum speed up to **75 kmph** over **DSDC routes of Indian Railway** and **Eastern Freight Corridor & Western Freight Corridor of DFCCIL routes** on the basis of RDSO's Final Speed Certificate mentioned under reference (ii).

Case has been examined by this office and is found to be in order. Accordingly, the same is being forwarded to Railway Board for necessary action with the recommendation for the sanction of the Central Government for operation of **12' high containers** (3658mm height and 2438mm width) **in single stack** in empty and loaded condition, on **20.32t axle load**, Broad Gauge Bogie Low Platform Bogie Container Flat wagon type BLC (A-Car & B-Car) up to a maximum speed of **75 [SEVENTY FIVE] kmph** over **DSDC routes of Indian Railway** and **Eastern Freight Corridor & Western Freight Corridor of DFCCIL routes** with conditions mentioned in **Annexure.**

This is issued with the approval of Chief Commissioner of Railway Safety.

AHMAD NADEEM SIDDIQUI
Digitally signed by AHMAD NADEEM SIDDIQUI
Date: 2021.10.08 12:35:19 +05'30'

(अहमद नदीम सिद्दीकी)
उप रेल संरक्षा आयुक्त (यांत्रिक)

संलग्नक: यथोक्त

प्रतिलिपि:
महानिदेशक (माल डिब्बा)
माल डिब्बा निदेशालय (एनेक्सी–1),
अनुसंधान, अभिकल्प एवं मानक संगठन,
मानक नगर, लखनऊ–226011

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[of CCRS Office's Letter No. Q.12011/13/2021-22-तां, dated 08.10.2021]

Conditions to be ensured by the Railway for operation of 12' high containers (3658mm height and 2438mm width) in single stack in empty and loaded condition, on 20.32t axle load, Broad Gauge Bogie Low Platform Bogie Container Flat wagon type BLC (A-Car & B-Car) up to a maximum speed of 75 kmph over DSDC routes of Indian Railway and Eastern Freight Corridor & Western Freight Corridor of DFCCIL routes

i. Observance of all conditions laid down in RDSO's Final Speed Certificate (FSC) no. MW/Container, Dated 03.09.2021. Remarks of the Railway/DFCCIL against each para of this Speed Certificate shall be submitted to the Commission before the start of actual operation of the rolling stock.

ii. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.

iii. Para 3.3.1 of Final Speed Certificate may be modified as "Provisions of GR, SR, IRSOD, DFC-SOD, SEM & all extant instructions issued from time to time as applicable shall be complied with".

iv. Location of bridges on which speed restrictions have been imposed shall be notified by the Railways/DFCCIL and incorporated in the working timetable so that all operating staff aware of the instructions.

v. In case of train (with this wagon in its composition) having EBD of more than 1 km and non provision of second distant signal/4 aspect automatic signalling in the section, action as per A&C no.9 of SEM Pt-1 shall be taken.

vi. Before initiating the operation, Zonal Railway shall arrange to certify the track worthiness and ensure safety of rolling stock. Proper maintenance of the rolling stock shall also be ensured.

vii. Only wagons with twin-pipe brake system shall be permitted to run at 75 kmph in loaded condition. Brakes of the rake of the wagons shall be in good working order during the operation.

viii. Single stacking of 12' high containers on BLC wagon shall follow the instructions mentioned in para 3.5.4 of RDSO's Final Speed Certificate (FSC) no. MW/Container, Dated 03.09.2021.

ix. Lateral and Vertical accelerations at the maximum sanctioned speed in Loaded condition in first and last wagon shall be measured & recorded by the Railways for a period of at least one week duration and submit the report to the Commission for the proposed wagon within 15 days of running of wagon.

x. Railway shall ensure that containers are lifted and lowered vertically to avoid any damage to inter-box connector locks /Automatic Twist Locks (ATL). Railway shall also ensure proper locking of inter-box connector locks/ATL at the starting station as well as at any station where loading/unloading is done.

xi. No overdue in track/rolling stock maintenance shall be permitted.

xii. In the Annexure –I of Final Speed Certificate, the Carrying Capacity has been mentioned as 81.28t in place of 62.16t. RDSO may therefore issue amendment before introduction of subject rolling stock.

xiii. As BLC (A-Car & B-Car) wagon with ISO containers in single stack is fit to run at 100 Kmph over IR, oscillation trials of BLC(A-Car & B-Car) with 12' high non ISO containers may be conducted early to ascertain & utilise the potential of running these wagons at higher speed over IR and DFC routes.

xiv. Wheel flat limits for operation of BLC (A-Car & B-Car) wagon for operation over DSDC routes of IR and DFC routes have not been mentioned in Final Speed Certificate dated 03.09.2021. Suitable Amendment in Final Speed Certificate is required to be issued before commercial operation of the rolling stock.

xv. Condonation of infringement of clauses of DFC-SOD by Railway Board is not available. It is required to get the infringing clauses of DFC-SOD of the BLC (A-Car & B-Car) condoned by Railway Board before commercial operation of the rolling stock.

xvi. Title of Drg. No. WD-20020-S-02 & WD-20020-S-03 for BLC/BLCM(A-Car) & BLC/BLCM(B-Car) respectively is 'For Condonation Only' whereas the subject case is of introduction of aforementioned rolling stock. In view of the above, detailed manufacturing drawings may be issued and speed certificate amended accordingly before the commercial introduction of the subject rolling stock.

***

AHMAD NADEEM SIDDIQUI
Digitally signed by AHMAD NADEEM SIDDIQUI
Date: 2021.10.08 12:35:48 +05'30'

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भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड) (Railway Board)

No. 2018/CEDO/SR/PC-6/0 New Delhi, Dated 08.10.2021

To,
General Manager
Northern Railway,
New Delhi.

Sub: Introduction of New Rolling Stock – Requirement of COCR

Ref: NR DO No. GM/Misc/Notes/2021, Dated 03.09.2021

1. Northern Railway vide DO under reference has requested Railway Board to review the requirement of COCR in Policy Circular No.6, 2018.

2. Regarding above, it is to inform you that Board has issued Addendum and Corrigendum Slip No.2 to Policy Circular No.6, 2018 vide Board's letter no. 2018/CEDO/SR/PC-6/0, dated 28.09.2021 (copy enclosed), addressing the above.

DA: As above

Prem Sagar
08.10.21
(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

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08/10/2021

रेल मंत्रालय
Ministry of Railways
Issue
Signature
जारी की तिथि
Date of Issue

(53)

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड) (Railway Board)

No. 2021/CEDO/SD/IRSOD/O/ACS-a

New Delhi, Date 08.10.2021

To,
General Manager
SW Railway,
Hubballi.

Sub: Condonation of Railway Board's for infringement of vertical clearance of ROB No.408B at km 8/800-900 between Yesvantpur (YPR)-Chikkabanavar (BAW) stations of KSR Bengaluru-Tumukuru section of Bengaluru Division

Ref: CCRS's Letter No.Q-11017/03/2021-22-T.W dated 29.09.2021

1. Regarding above subject, it is to inform you that Railway Board has issued Addendum & Corrigendum Slip No. 31 vide letter No. 2021/CEDO/SD/IRSOD/O/ACS-a, dated 07.10.2021 (enclosed). Now, subject condonation is within the powers of CRS.

2. Railway is requested to take further necessary action accordingly.

DA: As above.

Prem Sagar
08.10.21
(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

ole
Issue
08/10/2021

रेल मंत्रालय
Ministry of Railways
रेलवे बोर्ड
Railway Board
Enclosure
Signature
जारी की तिथि
Date of Issue

भारत सरकार
नागर विमानन मंत्रालय
(रेल संरक्षा आयोग)
GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

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फैक्स/Fax-0522-2233095, 2233087
E-mail : chiefcom@rediffmail.com

पूर्वोत्तर रेलवे, म.रे.प्र. कार्यालय परिसर
16, अशोक मार्ग, लखनऊ-226001

N.E. Railway, DRM OFFICE CAMPUS
16, Ashok Marg, Lucknow-226 001

(54)

No. Q-11017/03/2021-22-T.W.

Date: 29.09.2021

सचिव(सिविल इंजी),
रेल मंत्रालय (रेलवे बोर्ड),
रेल भवन, नई दिल्ली.

धयानार्थ : Executive Director, CE(G)

Sub: Condonation of Railway Board's for infringement of vertical clearance at ROB No. 408B at Km: 8/800-900 between Yesvantpur (YPR)- Chikkabanavar (BAW) stations of KSR Bengaluru – Tumukuru section of Bengaluru Division.

Ref: CRS/SC letter no. Q.11017/02/2021-22/SWR/792-94 dated 28.09.2021.

Vide reference above, CRS/Southern Circle has forwarded an application for Railway Board's sanction for permanent condonation of vertical infringement at ROB No. 408B between Yesvantpur (YPR)- Chikkabanavar (BAW) stations of KSR Bengaluru – Tumukuru section of Bengaluru Division.

Application, along with all the documents, has been examined by this office. Further, location and surrounding of this ROB was studied on Google-Earth and it is noticed that it is possible to contstruct a ROB adjacent to present ROB using Bow String girder, as done recently in Kalihar yard. Thus, Commission is of the opinion that this infringement can be removed and permananet condonation of this infringement is not agreed to. Therefore, Railway should remove this infringement within 3 years time.

Railway should keep in mind that every infringement is a potential safety hazard and should be removed as quickly as possible. Condonaton of infringement should be the last resort instead of routine practice.

In view of above, subject application, along with all the documents, is forwarded herewith with recommendation for Central Government's sanction subject to the following safety precautions:

(1) All the safety precautions, mentioned in CRS/SC letter under reference, shall be strictly followed.
(2) OHE shutdown shall be taken during the Bridge inspection either by State authorties or Railways.
(3) Infringment shall be recorded in infringement register.
(4) Infringment shall be removed with in 3 (THREE) year time. This condonation shall be valid for a period of THREE years from the date of this letter.

This is issued with the approval of Chief Commissioner of Railway Safety.

29/9/2021

(Shalabh Tyagi)
OSD/Safety/Electrical
CCRS Office, Lucknow

D.A.: As above
Copy to: CRS/SC: for information please.

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(55)

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड) (Railway Board)

No. 2021/CEDO/SD/IRSOD/O/ACS-a **New Delhi, Date 08.10.2021**

To,
General Manager
SW Railway,
Hubballi.

Sub: Condonation of Railway Board's for infringement of vertical clearance of ROB No.312A at km 65/000-100 between Kyatasandra Tumukuru stations of KSR Bengaluru-Tumukuru section of Bengaluru Division

Ref: CCRS's Letter No.Q-11017/04/2021-22-T.W dated 29.09.2021

1. Regarding above subject, it is to inform you that Railway Board has issued Addendum & Corrigendum Slip No. 31 vide letter No. 2021/CEDO/SD/IRSOD/O/ACS-a, dated 07.10.2021 (enclosed). Now, subject condonation is within the powers of CRS.

2. Railway is requested to take further necessary action accordingly.

DA: As above.

Prem Sagar 8/10/21
(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

o/c
Issue pls
08/10/2021

रेल मंत्रालय
Ministry of Railways
रेलवे बोर्ड
Railway Board
Issued
हस्ताक्षर
Signature.....
जारी की तिथि
Date of Issue.....

भारत सरकार
नागर विमानन मंत्रालय
(रेल संरक्षा आयोग)
GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

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(56)

पूर्वोत्तर रेलवे, म.रे.प्र. कार्यालय परिसर
16, अशोक मार्ग, लखनऊ-226001

N.E. Railway, DRM OFFICE CAMPUS
16, Ashok Marg, Lucknow-226 001

No. Q-11017/04/2021-22-T.W.

Date: 29.09.2021

सचिव(सिविल इंजी),
रेल मंत्रालय (रेलवे बोर्ड),
रेल भवन, नई दिल्ली.

ध्यानार्थ : Executive Director, CE(G)

Sub: Condonation of Railway Board's for infringement of vertical clearance at ROB No. 312A at Km: 65/000-100 between Kyatasandra Tumukuru stations of KSR Bengaluru – Tumukuru section of Bengaluru Division.

Ref: CRS/SC letter no. Q.11017/03/2021-22/SWR/785-87 dated 25.09.2021.

Vide reference above, CRS/Southern Circle has forwarded an application for Railway Board's sanction for permanent condonation of vertical infringement at ROB No. 312A between Kyatasandra Tumukuru stations of KSR Bengaluru – Tumukuru section of Bengaluru Division.

Application, along with all the documents, has been examined by this office. Further, location and surrounding of this ROB was studied on Google-Earth and it is noticed that it is possible to contstruct a ROB adjacent to present ROB using Bow-String girder, as done recently in Katihar yard. Thus, Commission is of the opinion that this infringement can be removed and permanenet condonation of this infringement is not agreed to. Therefore, Railway should remove this infringement within 3 years time.

Railway should keep in mind that every infringement is a potential safety hazard and should be removed as quickly as possible. Condonaton of infringement should be the last resort instead of routine practice.

In view of above, subject application, along with all the documents, is forwarded herewith with recommendation for Central Government's sanction subject to the following safety precautions:

(1) All the safety precautions, mentioned in CRS/SC letter under reference, shall be strictly followed.
(2) OHE shutdown shall be taken during the Bridge Inspection either by State authorties or Railways.
(3) Infringment shall be recorded in infringement register.
(4) Infringment shall be removed with in 3 (THREE) year time. This condonation shall be valid for a period of THREE years from the date of this letter.

This is issued with the approval of Chief Commissioner of Railway Safety.

29/9/2021

(Shailesh Tyagi)
OSD/Safety/Electrical
CCRS Office, Lucknow

D.A.: As above
Copy to: CRS/SC: for information please.

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भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड) (Railway Board)

No. 2021/CEDO/SD/IRSOD/O/ACS-a **New Delhi, Date 08.10.2021**

To,
General Manager
SW Railway,
Hubballi.

Sub: Condonation of infringement in the existing overhead structure viz, ROB No.332-A at Km 56/150-250 to the Schedule of Dimension in Chikkabanavara-hirehalli section in Bengaluru Division of South Western Railway in connection with Railway Electrification

Ref: CCRS's Letter No.Q-11017/05/2021-22-T.W dated 29.09.2021

1. Regarding above subject, it is to inform you that Railway Board has issued Addendum & Corrigendum Slip No. 31 vide letter No. 2021/CEDO/SD/IRSOD/O/ACS-a, dated 07.10.2021 (enclosed). Now, subject condonation is within the powers of CRS.

2. Railway is requested to take further necessary action accordingly.

DA; As above.

Prem Sagar 8/10/21
(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

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Issue ple
08/10/2021

रेल मंत्रालय
Ministry of Railways
रेलवे बोर्ड
Railway Board
अनुलग्नक/Annexure
Issued
हस्ताक्षर
Signature
जारी की तिथि
Date of Issue

भारत सरकार
नागर विमानन मंत्रालय
(रेल संरक्षा आयोग)
GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

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E-mail: chiefcom@rediffmail.com

(58)

पूर्वोत्तर रेलवे, म.रे.प्र. कार्यालय परिसर
16,अशोक मार्ग, लखनऊ-226001

N.E. Railway, DRM OFFICE CAMPUS
16, Ashok Marg, Lucknow-226 001

No. Q-11017/05/2021-22-T.W.

Date: 29.09.2021

सचिव(सिविल इंजी),
रेल मंत्रालय (रेलवे बोर्ड),
रेल भवन, नई दिल्ली.

ध्यानार्थ :Executive Director, CE(G)

Sub: Condonation of infringement in the existing overhead structure viz., ROB No. 332A at Km 56/150-250 to the Schedule of Dimension in Chikkabanavara – hirehalli section in Bengaluru Division of South Western Railway in connection with Railway Electrification.

Ref: CRS/SC letter no. Q.11017/09/2021-22/SWR/792-84 dated 25.09.2021

Vide reference above, CRS/Southern Circle has forwarded an application for Railway Board's sanction for permenent condonation of vertical infringement at ROB No. 332A in Chikkabanavara – hirehalli section in Bengaluru Division.

Application, along with all the documents, has been examined by this office. Further, location and surrounding of this ROB was studied on Google-Earth and it is noticed that it is possible to contstruct a ROB adjacent to present ROB using Bow-String girder, as done recently in Katihar yard. Thus, Commission is of the opinion that this infringement can be removed and permeheneet condonation of this infringement is not agreed to. Therefore, Railway should remove this infringement within 3 years time.

Railway should keep in mind that every inftingement is a potential safety hazard and should be removed as quickly as possible. Condonaton of infringement should be the last resort instead of routine practice.

In view of above, subject application, along with all the documents, is forwarded herewith with recommendation for Central Government's sanction subject to the following safety precautions:

(1) All the safety precautions, mentioned in CRS/SC letter under reference, shall be strictly followed.
(2) OHE shutdown shall be taken during the Bridge Inspection either by State authorties or Railways.
(3) Infringment shall be recorded in infringement register.
(4) Infringment shall be removed with in 3 (THREE) year time. This condonation shall be valid for a period of THREE years from the date of this letter.

This is issued with the approval of Chief Commissioner of Railway Safety.

29/9/2021

(Shailesh Tyagi)
OSD/Safety/Electrical
CCRS Office, Lucknow

D.A : As above
Copy to : CRS/SC : for information please.

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भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड) (Railway Board)

No. 2021/CEDO/SD/IRSOD/O/ACS-a

New Delhi, Date 08.10.2021

To,
General Manager
SW Railway,
Hubballi.

Sub: Condonation of infringement in the existing overhead structure viz, ROB No.339A at Km 50/550-650 to the Schedule of Dimension in Chikkabanavara-hirehalli section in Bengaluru Division of South Western Railway in connection with Railway Electrification

Ref: CCRS's Letter No.Q-11017/02/2021-22-T.W dated 29.09.2021

1. Regarding above subject, it is to inform you that Railway Board has issued Addendum & Corrigendum Slip No. 31 vide letter No. 2021/CEDO/SD/IRSOD/O/ACS-a, dated 07.10.2021 (enclosed). Now, subject condonation is within the powers of CRS.

2. Railway is requested to take further necessary action accordingly.

DA: As above.

Prem Sagar
08.10.21
(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

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Issue pls
08/10/202

रेल मंत्रालय
Ministry of Railways
रेलवे बोर्ड
Railway Board
Issued
Signature
जारी की तिथि
Date of Issue

भारत सरकार
नागर विमानन मंत्रालय
(रेल संरक्षा आयोग)
GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

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E-mail : chiefcom@rediffmail.com

(60)

पूर्वोत्तर रेलवे, मं.रे.म. कार्यालय परिसर
16,अशोक मार्ग, लखनऊ-226001

N.E. Railway, DRM OFFICE CAMPUS
16, Ashok Marg, Lucknow-226 001

No. Q-11017/02/2021-22-T.W.

Date: 29.09.2021

सचिव(सिविल इंजी),
रेल मंत्रालय (रेलवे बोर्ड),
रेल भवन, नई दिल्ली.

प्रधानार्थ : Executive Director, CE(G)

Sub: Condonation of infringement in the existing overhead structure viz., ROB No. 339A at Km 50/550-650 to the Schedule of Dimension in Chikkabanavara – Hirehalli section in Bengaluru Division of South Western Railway in connection with Railway Electrification.

Ref: CRS/SC letter no. Q.11017/09/2021-22/SWR/788-91 dated 25.09.2021.

Vide reference above, CRS/Southern Circle has forwarded an application for Railway Board's sanction for permanent condonation of vertical infringement at ROB No. 339A in Chikkabanavara – hirehalli section in Bengaluru Division.

Application, along with all the documents, has been examined by this office. Further, location and surrounding of this ROB was studied on Google-Earth and it is noticed that it is possible to construct a ROB adjacent to present ROB using Bow-String girder, as done recently in Kathar yard. Thus, Commission is of the opinion that this infringement can be removed and permanenet condonation of this infringement is not agreed to. Therefore, Railway should remove this infringement within 3 years time.

Railway should keep in mind that every infringement is a potential safety hazard and should be remaked as quickly as possible. Condonaton of infringement should be the last resort instead of routine practice.

In view of above, subject application, along with all the documents, is forwarded herewith with recommendation for Central Government's sanction subject to the following safety precautions:

(1) All the safety precautions, mentioned in CRS/SC letter under reference, shall be strictly followed.
(2) OHE shutdown shall be taken during the Bridge inspection either by State authorties or Railways.
(3) Infringment shall be recorded in Infringement register.
(4) Infringment shall be removed with in 3 (THREE) year time. This condonation shall be valid for a period of THREE years from the date of this letter.

This is issued with the approval of Chief Commissioner of Railway Safety.

29/9/2021

(Shyam Jeet)
OSD/Safety/Electrical
CCRS Office, Lucknow

D.A.: As above
Copy to CRS/SC for information please.

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(61)

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
रेलवे बोर्ड Railway Board

No. 2021/CEDO/SD/IRSOD/O/ACS-a **New Delhi, Dated 07.10.2021**

Addressed to:
(As per list mentioned below)

Sub: Addendum & Corrigendum Slip (ACS) No. 31 to the Indian Railways Schedule of Dimensions 1676 mm Gauge (BG) Revised, 2004

The Ministry of Railways (Railway Board) have decided that Schedule II of Indian Railways Schedule of Dimensions 1676 mm Gauge (BG) Revised, 2004 be amended as shown in the enclosed Addendum & Corrigendum Slip (ACS) No. 31.

Enclosure: ACS No. 31

Prem Sagar
07.10.2021
(प्रेम सागर गुप्ता)
कार्यकारी निदेशक (सिविल इंजी.)/रेलवे बोर्ड
[Phone: Rly: 030-44803, MTNL011-23383379]

List for Distribution:
1. General Managers, All Indian Railways & Production Units
2. Principal Chief Engineers and Chief Administrative Officers (Con.), All Indian Railways
3. Director General, RDSO, Manak Nagar, Lucknow
4. Director General, NAIR, Vadodara
5. Chief Commissioner of Railway Safety, Ashok Marg, Lucknow
6. Commissioner of Railway Safety, All Circles
7. Director, IRICEN, Rail Path, Pune – 411001 (Maharashtra)
8. Director, IRIEEN, P.B. No. 233, Nasik Road – 422101 (Maharashtra)
9. Director, IRISET, Taar Naka Road, Lalla Guda, Secunderabad
10. Director, IRIMEE, Jamalpur – 811214 (Bihar)
11. Director, IRITM, IRITM Campus, Manak Nagar, Lucknow

रेल मंत्रालय Ministry of Railways
11/10/21
Signature
जारी की तिथि
Date of Issue

Copy to:

- PSO/Sr. PPS to ME, MRS, MTR, MT and M(S&T) for kind information of ME, MRS, MTR, MT and M(S&T) please
- AM(CE), AM(Works), AM(Planning), AM(ME), AM(Elec.), AM(PU), AM(Tele), AM(Sig), AM(Traffic), PED(Safety), PED (SPV), PED(SD), PED(Bridges), PED(Infra)
- EDCE(G), EDCE(P), EDTk(M), EDTk(Mc), EDTk(P), EDCE(B&S), ED(Works), EDW(Plg.), ED(Project Mon.), ED(L&A)-I, ED(SD), ED(PSU), EDRE, ED(Safety)-I, ED(Safety)-II, ED(Sig), ED(Tele), EDME(Chg.), EDME(Frt.), EDME(Dev.), EDME(W), ED(Plg.), EDEE(RS), EDEE(G) in Railway Board.
- ED Standards (Track I)/RDSO

Please
08/10/2021

Addendum & Corrigendum Slip (ACS) No. 31 to the Indian Railways Schedule of Dimensions 1676 mm Gauge (BG) Revised, 2004

A. Sub Item No. 10 Chapter 1, Schedule I mentioned in Note of Item No. 7 of Schedule II, which reads as under:

ii. Where electric traction is in use or likely to be used, this dimension shall be 5410 mm

Stands deleted.

B. Sub Item No. 10 Chapter II, Schedule I mentioned in Note of Item No. 7 of Schedule II, which reads as under:

(b) Where electric traction is likely to be introduced this minimum height should be 5410mm

Stands deleted.

C. Item No. 8, Schedule II which reads as under:

General: Out of station

Minimum height above rail level for a distance of 1600mm on either side of the centre of track for overhead structures *5410 mm*

Note: (i) See Appendix for extra clearance required on curves.

(ii) In case of existing structures, a special study shall be made as indicated in Appendix-A to Chapter V-A of Schedule-I, before 25 kV AC traction is introduced. In case of restricted height of existing over head structure, the minimum height above rail level shall not be lower than 5070mm in case of Heavy Overhead Structure (such as Road Over& Flyovers) and 5270mm in case of Light Overhead Structures (such as Foot Over Bridges) for a minimum contact wire height of 4800mm from above rail level. OHE arrangements shall be as per RDSO Drawings.

Stands deleted.

D. Item No. 10, Schedule II which reads as under:

Station Yards:

Minimum height above rail level for a distance of 1600mm on either side of the centre of track, of a signal gantry or a foot over bridge in a passenger station *5410mm*

Note: (i) See Appendix for extra clearance required on curves.

Prem Sagar
07.10.21

(ii) In case of existing structures, a special study shall be made as indicated in Appendix-A to Chapter V-A before 25 KV AC traction is introduced. In case of restricted height of existing over head structure, the minimum height above rail level shall not be lower than 5070mm in case of Heavy Overhead Structure (such as Road Over or Flyover Bridges) and 5270mm in case of Light Overhead Structures (such as Foot Over Bridges) for a minimum contact wire height of 4800mm from above rail level. OHE arrangements shall be as per RDSO Drawings.

Stands deleted.

Prem Sagar
07.10.21

(64)

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड) (Railway Board)

No. 2021/CEDO/SR/25 New Delhi, Dated 07.10.2021

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Introduction of Work Site Tamper (with flat car) **Model VPR-02M**, manufactured and supplied by M/s Metex JSC, Moscow **[Unique Transportation Code- TTM/VPR-02M**; Maximum Axle Load: **12.5 t]** to its GA Drawing no. 23.00.00.000 BO (Sheet 1 & 2) up to a maximum speed of **50 kmph when running on its own power** and **45 kmph in train formation as a dead vehicle** from existing maximum speed of 35 kmph over IR by Zonal Railways

Ref: (i) RDSO's Final Speed Certificate (FSC) no. TM/HM/11/13/WST, Dated 30.07.2021
(ii) RDSO's letter no. TM/HM/11/13/WST, Dated 13.08.2021
(iii) CCRS office letter No.Q.12011/07/2021-22/ T.W. dated 29.09.2021

Chief Commissioner of Railway Safety, Lucknow; while forwarding the case for the sanction of the Railway Board for introduction of Work Site Tamper (with flat car) **Model VPR-02M**, manufactured and supplied by M/s Metex JSC, Moscow **[Unique Transportation Code- TTM/VPR-02M**; Maximum Axle Load: **12.5 t]** to its GA Drawing no. 23.00.00.000 BO (Sheet 1 & 2) up to a maximum speed of **50 kmph when running on its own power** and **45 kmph in train formation as a dead vehicle** from existing maximum speed of 35 kmph over Indian Railway, has asked to suitably amend Para-2.1 of FSC (item no. 10, Annexure of CCRS above letter) before introduction of above rolling stocks.

RDSO is requested to take necessary action at the earliest.

DA: as above.

ole
Issue ple
08/10/2021

Prem Sagar
07/10/21
(प्रेमसागरगुप्ता)
कार्यकारीनिदेशकसिविलइंजी.(जी)/रेलवेबोर्ड
[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

Copy forwarded for information to :
1. Executive Director (Standards) Motive Power, RDSO
2. Executive Director EE(G), Railway Board

रेल मंत्रालय
Ministry of Railways
रेलवे बोर्ड
Railway Board
अनुलग्नक के साथ जारी
Issue with Enclosure
हस्ताक्षर
Signature
08/10/21
जारी की तिथि
Date of Issue

991425/2021/SECTION

File No. 2021/CEDO/SR/25 (Computer No. 33710479)

भारत सरकार
नागर विमानन मंत्रालय
(रेल संरक्षा आयोग)
GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

फोन/Ph.: 0522-2233097, 2233108 (P&T)
N.E.Rly. 31-140, N.Rly. 23-290
फैक्स/Fax-0522-2233096, 2233087
E-mail: chiefcom@rediffmail.com

N.E. Railway, DRM OFFICE CAMPUS
16, Ashok Marg, Lucknow-226 001

पूर्वोत्तर रेलवे, भं.रे.प्र. कार्यालय परिसर
16, अशोक मार्ग, लखनऊ-226001

संख्या–Q.12011 / 07 / 2021–22–त.वि

दिनांक–29.09.2021

सेवा में,

सचिव (सिविल इंजी.)
रेल मंत्रालय (रेलवे बोर्ड)
रेल भवन
नई दिल्ली

[ध्यानार्थ: EDCE(G)]

विषय: Increase in sanctioned maximum speed of Work Site Tamper (with flat car) Model VPR-02M, manufactured and supplied by M/s Metex JSC, Moscow **[Unique Transportation Code- TTM/VPR-02M;** Maximum Axle Load: **12.5 t**] to its GA Drawing no. 23.00.00.000 BO (Sheet 1 & 2) **upto a maximum speed of 50 kmph when running on its own power and 45 kmph in train formation as a dead vehicle from existing maximum speed of 35 kmph over IR** for use by Zonal Railways

संदर्भ: (i) Director General/RDSO's letter No. TM/HM/11/13/WST, Dated 13.08.2021
(ii) RDSO's Final Speed Certificate (FSC) No. TM/HM/11/13/WST, Dated 30.07.2021

Vide reference (i), RDSO has approached this office seeking Railway Board's sanction for increase in sanctioned maximum speed of subject rolling stock upto a maximum speed of 50 kmph when running on its own power and 45 kmph in train formation as a dead vehicle from existing maximum speed of 35 kmph over IR for use by Zonal Railways on the basis of RDSO's Final Speed Certificate mentioned under reference (ii).

Case has been examined by this office and is found to be in order. Accordingly, the same is being forwarded to Railway Board for necessary action with the recommendation for the sanction of the Central Government for operation of Work Site Tamper (with flat car) Model VPR-02M, manufactured and supplied by M/s Metex JSC, Moscow [Unique Transportation Code- TTM/VPR-02M; Maximum Axle Load: 12.5 t] to its GA Drawing no. 23.00.00.000 BO (Sheet 1 & 2) **upto a maximum speed of 50 [FIFTY] kmph when running on its own power and 45 [FORTY FIVE] in train formation as a dead vehicle over IR** for use by Zonal Railways with conditions mentioned in **Annexure.**

This is issued with the approval of Chief Commissioner of Railway Safety.

(अहमद नदीम सिद्दीकी)
उप रेल संरक्षा आयुक्त (यांत्रिक)

संलग्नक: यथोक्त

प्रतिलिपि:
महानिदेशक (माल डिब्बा)
माल डिब्बा निदेशालय (एनेक्सी–1),
अनुसंधान, अभिकल्प एवं मानक संगठन,
मानक नगर, लखनऊ–226011

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[of CCRS Office's Letter No. Q.12011/07/2021-22-त.वि., Dated 29.09.2021 regarding WST Model VPR-02

Conditions to be ensured by the Railway for operation of Work Site Tamper (with flat car) Model VPR-02M, manufactured and supplied by M/s Metex JSC, Moscow [Unique Transportation Code- TTM/VPR-02M; Maximum Axle Load: 12.5 t] to its GA Drawing no. 23.00.00.000 BO (Sheet 1 & 2) upto a maximum speed of 50 [FIFTY] kmph when running on its own power and 45 [FORTY FIVE] in train formation as a dead vehicle over IR for use by Zonal Railways

1. Observance of all conditions laid down in RDSO's Final Speed Certificate (FSC) No. TM/HM/11/13/WST, Dated 30.07.2021respectively for operation up to a maximum speed of 50 kmph when running on its own power and 45 kmph in train formation as a dead vehicle. Remarks of the Railway against each para of the Speed Certificate shall be submitted to the Commission before start of actual operation of rolling stock.
2. Observance of all permanent and temporary speed restrictions already in force and /or those that may be imposed from time to time on various accounts.
3. Location of bridges on which speed restrictions have been imposed shall be notified by the Railways and incorporated in the working timetable.
4. In case of locomotive/rolling stock/train (having this machine in its composition) having EBD of more than 1 km and non-provision of second distant signal/4 Aspect Automatic Signalling in the section, action as per A&C no. 9 of SEM Pt-I shall be taken.
5. Before initiating the movement of the machine, Chief Engineer/Track Machine of the concerned Railway shall arrange to certify the track worthiness and safety of the Rolling stock and they shall also ensure proper maintenance of the rolling stock.
6. Brakes of the machine shall be in good working order during the operation.
7. When the machine is being moved either on its own power or hauled in train, it shall be ensured that all the protruding parts are withdrawn and suitably locked, so that during the run, there is no possibility of any infringement occurring to the standard moving dimensions.
8. The machine when running in train formation, a speed restriction of 15 kmph shall be imposed on diamond crossings. No speed restriction on main line route at points and crossings is required. Speed restriction on turnout side of points and crossings shall be 15 kmph. The movement of the machine in case of Track Machine in block section, instructions of the para 708(4) of Indian Railways Track Machine Manual, Septemer-2019 shall be followed.
9. Worksite Tamper machine shall be maintained as per 'Maintenance manual for 'Worksite Tamper Machines' issued by RDSO.
10. Work Site Tamper Model VPR-02M were sanctioned by Railway Board vide letter no. 2004/CEDO/SR/15 dt. 06.10.2004 for operation up to 35 kmph on the basis of RDSO's Speed Certificate dt. 05.07.2004. But in Para 2.1 of the Final Speed Certificate dt. 30.07.2021, it is mentioned that these machines were permitted to run at 40 kmph vide RDSO's Provisional Speed Certificate dated 18.06.2012.So, there is a discrepancy in speed as well as Speed Certificates of the rolling stock as mentioned in the FSC. Further, Provisional Speed Certificate dt. 18.06.2021 was revalidated in 2020, i.e. after 8 years, whereas validity of PSC is 5 years only.

    In view of the aforementioned, Para 2.1 of the FSC dt. 30.07.2021 is required to be suitably amended before actual operation of the machine.

***

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भारत सरकार **Government of India**
रेलमंत्रालय **Ministry of Railways**
(रेलवेबोर्ड) (Railway Board)

(67)

No. 2019/CEDO/SD/RS/08 **New Delhi, Dated 05.10.2021**

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub : Condonation of infringements w.r.t. IRSOD (BG) Revised, 2004 by **Maximum height (60mm)** of **MEMU** stock of conventional Driving Motor Coach (DMC) fitted with all coil ICF bogie.

Ref: (i) CCRS letter संख्या–Q.14011/03/2019–20–त.वि, Dated 08.08.2019
(ii) RDSO's letter No.CT/DEL/AC/EMU/BG, Dated 10.06.19 & 29.11.2019

With reference to your above applications {ref. (i)}, sent through the Chief Commissioner of Railway Safety, Lucknow; the sanction of Ministry of Railways, Railway Board is hereby communicated for condonation of infringement w.r.t. Chapter-IV(A), Schedule-I of IRSOD (BG) Revised, 2004 by **Maximum height (60mm) of MEMU** stock of conventional Driving Motor Coach (DMC) fitted with all coil ICF bogie, as shown in details enclosed with above mentioned application, details of infringements as under :

Clause 29 – Maximum height above rail level for a width of 760mm on either side of the centre of unloaded vehicles. Vertical infringements – 60mm at centre and decreasing to 0 mm at a height of 4265mm at distance of 735mm from centre line of rolling stock with pantograph in locked down condition at location 'C' as shown in sketch enclosed with the RDSO application.

Further, above sanction of condonation is subject to the following stipulations:

(1) RDSO while issuing the Speed Certificate for above rolling stock, shall incorporate the provisions regarding (i) minimum clearances from contact wire as provided in AC Traction Manual (Para 10436 & its correction slip no.29 dated 25.10.2018) and (ii) minimum permissible clearances in existing tunnels and girder bridges as provided in IRSOD (BG) Revised, 2004 (clause 6 of Schedule II).

(2) The Zonal Railway MUST ensure the removal of existing infringements on all the routes where subject rolling stock will be running.

Issue plo
05/10/2021

(प्रेम सागर गुप्ता)
कार्यकारी निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड
[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

Copy forwarded for information to :
1. The Chief Commissioner of Railway Safety, Compound of DRM/NER, Ashok Marg, Lucknow- w.r.t. his endorsement संख्या–Q.14011/03/2019–20–त.वि, Dated 08.08.2019
2. Commissioner of Railway Safety, all Circles
3. ED Standards (Track-I), RDSO, ManakNagar,Lucknow
4. EDME(Chg)/Railway Board, New Delhi
5. EDEE (G) /Railway Board, New Delhi

रेल मंत्रालय
Ministry of Railways
रेलवे बोर्ड
Railway Board
05/10/21
हस्ताक्षर
Signature.....
जारी की तिथि
Date of Issue.....

(प्रेम सागर गुप्ता)
कार्यकारी निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड
[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

(68)

भारत सरकार Government Of India
रेल मंत्रालय Ministry Of Railways
रेलवे बोर्ड Railway Board

No. 2018/CEDO/SR/PC-6/0 Delhi, dated 28.09.2021

General Managers
All Zonal Railways

Chief Commissioner of Railway Safety
DRM Office Campus, Lucknow

Sub: Addendum and Corrigendum Slip (ACS) No. 2 to Policy Circular No. 6
Ref: Railway Board Letter No. 2018/CEDO/SR/PC-6, dated 31.10.2018 & 12.10.2020

1. The Policy Circular No. 6 deals with procedure for certification of maximum permissible speed for rolling stock and introduction of trains at different speeds.

2. The existing Policy Circular No. 6 was issued vide Letter No. 2018/CEDO/SR/PC-6/0, dated 31.10.2018 and subsequently Addendum and Corrigendum Slip (ACS) No. 1 to Policy Circular No. 6 was issued vide Letter of even No. dated 12.10.2020.

3. Board have approved that the Para 6, Appendix-1 and Annexure A of Policy Circular No. 6 be amended, as shown in the enclosed Addendum & Corrigendum Slip (ACS) No. 02.

Enclosure: ACS No. 02 (Total 7 pages)

Prem Sagar
28.09.21
(प्रेम सागर गुप्ता)
कार्यकारी निदेशक/ सिविल इंजी(जी)/ रेलवे बोर्ड
[Phone: 011-23383379; Rly No. 44803]

Copy to:

1. DG/RDSO, Lucknow for information and necessary action
2. Commissioners of Railway Safety, All Circles, for information and necessary action
3. PSO to Chairman & Chief Executive Officer(CEO), Railway Board, Member (Infrastructure), Member (Traction & Rolling Stock), Member (Finance) for kind information of Chairman & Chief Executive Officer(CEO) , Railway Board, Member (Infrastructure), Member (Traction & Rolling Stock), Member (Finance)

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Issue ple
29/09/2021

रेल मंत्रालय
Ministry of Railways
रेलवे बोर्ड/Railway Board
अनुलग्नक सहित जारी
Issue with Enclosure
हस्ताक्षर 28.09.21
Signature
जारी की तिथि
Date of Issue

(69)

Addendum & Corrigendum Slip (ACS) No. 02
To
Policy Circular No. 6

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6. Introduction of Passenger Trains on Specific Route

6.1. General Principles

6.1.1. Train for introduction in a section shall consist of only coaches, locomotive/s and train sets including EMU/MEMU/DEMU etc., which have approvals of the Central Govt. (Railway Board) for running at proposed maximum speed of train or higher, as per 'The Railways (Opening for Public Carriage of Passengers), Rules, 2000 as amended from time to time'.

6.1.2. Trains will be introduced in the sections at speeds as per provision of General Rules 1976 - Rule 4.08 1(a).

6.1.3. Irrespective of speed of train, introduction of a passenger train having 24 coaches or more plus one inspection carriage (ICF make)/other non-passenger carrying coach (ICF make), or, 22 coaches or more plus one inspection carriage (LHB or other types)/other non-passenger carrying coach (LHB or other types), in a section, shall require prior approval of General Manager. The General Manager shall ensure availability of full train length of Examination Pits at terminal stations of the train, full length of Platforms with adequate lighting arrangement at the stopping stations, and en-route coach watering facility for full length of train, before introduction of train.

Provided further, introduction of subsequent trains with same or less number of coaches, having same terminal stations and stopping stations, shall not require approval of General Manager.

6.1.4. Length of any passenger train shall not be increased beyond 26 coaches plus one inspection carriage (ICF make)/other non-passenger carrying coach (ICF make), or 24 coaches plus one inspection carriage (LHB type))/other non-passenger carrying coach (LHB or other types) in any case without prior approval of Central Govt. (Railway Board).

6.2. For speed up to & including 110 km/hr on BG, upto & including 75 km/hr on MG

6.2.1. Trains can be introduced by zonal railway following general principles given in para 6.1 above.

6.3. Deleted

6.3.1. Deleted

6.4. For speed above 110 kmph and up to & including 120 kmph on BG

6.4.1. For such trains, zonal railway shall carry out the "Route Proving Run" with representative coaches of all types and locomotive to be included in the train to be introduced, for recording vertical and transverse accelerations throughout the route. In such route proving run, total representative coaches should preferably be 26 coaches plus one inspection carriage (ICF make), or 24 coaches plus one inspection carriage (LHB & other types), but not less than 18 representative coaches in any case.

6.4.1.1. For conducting route proving run, JSC shall be signed by Principal Chief Engineer, Principal Chief Mechanical Engineer, Principal Chief Operating Manager and Principal Chief Signal & Telecom Engineer and also by Principal Chief Electrical Engineer (in electrified territories and in respect of locomotive).

Prem Sagar
28.09.21

6.4.1.2. For conducting route proving run, personal approval of Principal Chief Engineer shall be taken, who shall grant the same after ensuring that the track is being maintained as per standards specified in Indian Railway P.Way Manual.

6.4.1.3. The route proving run shall be required even for rolling stock for which detailed Oscillation Trials had been dispensed with earlier.

6.4.1.4. During route proving run, the train should run at maximum permissible speed for atleast 50% of the route (excluding all permanent speed restrictions and their acceleration/deceleration zones) to have meaningful evaluation of results. Results obtained during the route proving run should satisfy the stipulated criteria as given in Appedix-1. In case 50% route (excluding all permanent speed restrictions and their acceleration/deceleration zones) is not covered with maximum permissible speed, route proving run should invariably be repeated.

6.4.1.5. The Commissioner of Railway safety shall be kept advised of the programme for conducting route proving run along with all relevant details including copy of Principal Chief Engineer sanction, by Zonal Railway, to enable him to witness the tests, if he so desires.

6.4.2. Subject to compliance of para 6.1 and 6.4.1 & its sub paras above, Principal Chief Engineer shall permit operation of first train on that route with or without any stipulations. This power shall not be delegated by Principal Chief Engineer further. The proforma on which sanction shall be given shall be on same lines as placed at Annexure F.

6.4.3. Introduction of all subsequent trains or increase in speed of existing trains or increase in length of existing trains [up to 26 coaches plus one inspection carriage (ICF make)/other non-passenger carrying coach (ICF make), or 24 coaches plus one inspection carriage (LHB & other types)/other non-passenger carrying coach (LHB or other types)], having same type of coaches and locomotive for which route proving run has been successfully carried out (either in one route proving run or in different route proving runs), shall also require approval of Principal Chief Engineer (not to be delegated further), but, there is no need to repeat route proving run and signing of JSC again.

6.5. For speed above 120 kmph and upto & including 130 kmph on BG

6.5.1. For such trains, RDSO shall carry out Confirmatory Oscillograph Car Run (COCR) with instrumented locomotive and instrumented representative coaches of all types to be included in the train to be introduced, for recording vertical and transverse accelerations throughout the route. In such COCR, total representative coaches should preferably be 26 coaches plus one inspection carriage (ICF make), or 24 coaches plus one inspection carriage (LHB & other types). In case COCR is carried out with less than above number of coaches, the train can be introduced / length of existing trains can be increased maximum up to 26 coaches plus one inspection carriage (ICF make)/other non-passenger carrying coach (ICF make), or 24 coaches plus one inspection carriage (LHB & other types)/other non-passenger carrying coach (LHB or other types), in increment of not more than 2-3 coaches, at a time with the prior personal approval of GM.

6.5.1.1. For conducting COCR, JSC shall be signed by Principal Chief Engineer, Principal Chief Mechanical Engineer, Principal Chief Operating Manager and Principal Chief Signal & Telecom Engineer and also by Principal Chief Electrical Engineer (in electrified territories and in respect of locomotive). Principal Chief Engineer shall also ensure that the track is being maintained as per standards specified in Indian Railway P.Way Manual.

6.5.1.2. For conducting COCR, personal approval of General Manager shall be taken.

Prem Sagar

6.5.1.3. The Route Proving Run as per para 6.4.1.1 & 6.4.1.4, with the approval of GM, in place of COCR, can be resorted to for rolling stock for which detailed Oscillation Trials had been dispensed with earlier. Similarly, Route Proving Run as per para 6.4.1.1 & 6.4.1.4, with the approval of GM, in place of COCR, can be resorted to for new/existing locomotive or new/existing coaches, for which COCR has not been carried out earlier in the section, where, however, the train/s is/are already running at a speed above 120 kmph.

6.5.1.4. During COCR, the train should run at maximum permissible speed for atleast 50% of the route (excluding all permanent speed restrictions and their acceleration/deceleration zones) to have meaningful evaluation of results. Results obtained during the COCR shall be analyzed by RDSO and speed certificate issued with or without any stipulations. In case 50% route (excluding all permanent speed restrictions and their acceleration/deceleration zones) is not covered with maximum permissible speed, COCR should invariably be repeated.

6.5.1.5. The Commissioner of Railway safety shall be kept advised of the programme for conducting COCR/Route Proving Run along with all relevant details including copy of GM sanction, by Zonal Railway, to enable him to witness the tests, if he so desires.

6.5.1.6. RDSO shall issue speed certificate based on the results obtained in COCR.

6.5.2. Subject to compliance of para 6.1 and 6.5.1& its sub paras above, General Manager shall permit operation of first train on that route with or without any stipulations. This power shall not be delegated by General Manager further. The Proforma on which sanction shall be given shall be on same lines as placed at Annexure F.

6.5.3. Introduction of all subsequent trains or increase in speed of existing trains or increase in length of existing trains *[up to 26 coaches plus one inspection carriage (ICF make)*/other non-passenger carrying coach (ICF make) or 24 coaches plus one inspection carriage (LHB & other types)/other non-passenger carrying coach (LHB or other types), subject to *maximum length of train as per para 6.5.1 above]*, having same type of coaches and locomotive for which COCR/Route Proving Run (RPR) as the case may be, has been successfully carried out (either in one COCR/RPR or in different COCRs/RPRs), shall also require approval of GM (not to be delegated further), but, there is no need to repeat COCR/RPR and signing of JSC again.

6.6. For Speed above 130 kmph on B.G., above 75 kmph on M.G

6.6.1. For such trains, RDSO shall carry out COCR with instrumented locomotive and instrumented representative coaches of all types to be included in the train to be introduced, for recording vertical and transverse accelerations throughout the route. In such COCR, total representative coaches should preferably be 26 coaches plus one inspection carriage (ICF make), or 24 coaches plus one inspection carriage (LHB & other types). In case COCR is carried out with less than above number of coaches, the train can be introduced / length of existing trains can be increased, up to that number of coaches only.

6.6.1.1. For conducting COCR, Joint Safety Certificate (JSC) shall be signed by Principal Chief Engineer, Principal Chief Mechanical Engineer, Principal Chief Operating Manager and Principal Chief Signal & Telecom Engineer and also by Principal Chief Electrical Engineer (in electrified territories and in respect of locomotive). Principal Chief Engineer shall also certify that the track is being maintained as per standards specified in Indian Railway P.Way Manual.

6.6.1.2. For conducting COCR, prior permission from CRS shall be taken.

6.6.1.3. The COCR shall be required even for rolling stock for which detailed Oscillation Trials had been dispensed with earlier.

Prem Sagar
28.09.21

6.6.1.4. During COCR, the train should run at maximum permissible speed for atleast 50% of the route (excluding all permanent speed restrictions) to have meaningful evaluation of results. Results obtained during the COCR shall be analyzed by RDSO and speed certificate issued with or without any stipulations. In case 50% route (excluding all permanent speed restrictions and their acceleration/deceleration zones) is not covered with maximum permissible speed, COCR should invariably be repeated.

6.6.1.5. The Commissioner of Railway safety shall be kept advised of the programme for conducting COCR along with all relevant details including copy of CRS sanction, by Zonal Railway, to enable him to witness the tests, if he so desires.

6.6.1.6. RDSO shall issue speed certificate based on the results obtained in COCR.

6.6.2. Subject to compliance of para 6.1 and 6.6.1 & its sub paras above, General Manager shall approach Central Govt. (Railway Board) through CRS and CCRS for permitting operation of first train on that route. The CRS recommendation shall be on proforma placed at Annexure E.

6.6.3. For, up to speed of first train as mentioned in para 6.6.2 above, introduction of all subsequent trains or increase in speed of existing trains or increase in length of existing trains *[up to 26 coaches plus one inspection carriage (ICF make)*/other non-passenger carrying coach (ICF make) *or 24 coaches plus one inspection carriage (LHB & other types)*/other non-passenger carrying coach (LHB or other types), *subject to maximum length of train as per para 6.6.1 above]*, even if having same type of coaches and locomotive with which COCR has been successfully carried out (either in one COCR or in different COCRs), railway shall approach Commissioner of Railway Safety for permission. However, there is no need to repeat COCR and signing of JSC again.

Prem Sagar
28.09.21

Appendix – 1

Guidelines for Route Proving Runs for Speed above 110 kmph and upto & including 120 kmph on BG by Zonal Railways

1. Introduction

Zonal Railways shall conduct Route Proving Runs for speeds above 110 kmph and upto 120 kmph on BG, with the help of portable accelerometers (such as OMS-2000). Following guidelines are to be observed while conducting these runs:

2. Requirements

2.1 Track: The track on the route should be maintained to standards specified in Indian Railway P.Way Manual. Acceleration in two directions lateral & vertical shall be recorded by portable accelerometers and action taken to attend track accordingly as per provision of Indian Railway P.Way Manual in case of any deficiency.

2.2 Rolling Stock: The proposed Diesel/Electric Loco, Coach to be run should be cleared for operation at proposed or higher speed.

2.3 Portable accelerometer shall be placed as near as possible to the leading pivot in case of locomotive. In other representative rolling stock, the Portable Accelerometer would be placed as near as possible to the pivot of the trailing bogie.

In case of diesel locomotive, the short-hood shall be kept in leading position.

2.4 The wheels of the loco and coaches used should have only normal wear.

2.5 Portable accelerometer shall have arrangements for recording the acceleration in two directions, i.e. vertical and lateral, in working order.

2.6 Instructions regarding Operation and calibration of the equipments are available in the report titled, "Specification and Manual for Calibration of OMS-2000" issued by RDSO under covering letter no. RT/UGTRC/OMS/General, dated 31.5.1994.

3. Criteria for Clearing the Route

3.1 Vertical and lateral accelerometer records, obtained by portable accelerometer, shall be closely analysed. Acceleration peaks observed in the cab of loco at the proposed speed should be counted.

3.2 Following criteria shall be used for clearing the route for operation at the proposed speed.

For Coaches: The average number of peaks of vertical and lateral accelerations exceeding 0.20g should be limited to 0.25 peaks/km (total no. of vertical and lateral peaks/recorded km) for each representative coach. However, the number of peaks in any kilometer shall not exceed 1, and where this value is exceeded, the track shall need attention.

In case the limit of 0.25 peak/km exceeds, the route proving run of the representative coach(es) for which the limit has been exceeded, would be repeated.

At location, where the peaks of lateral and vertical accelerations exceed the Urgent Maintenance Limits stipulated in IRPWM, the track shall have to be attended urgently.

For Locomotives: The average number of peaks of vertical and lateral accelerations exceeding 0.30g should be limited to 0.25 peaks/km (total no. of vertical and lateral peaks/recorded km) for each loco. However, the number of peaks in any kilometre shall not exceed 1, and where this value is exceeded, the track shall need attention.

In case the limit of 0.25 peak/km exceeds, the route proving run of the loco(s) for which the limit has been exceeded, would be repeated.

Prem Sagar
28.09.24

At location, where the peaks of lateral and vertical accelerations exceed 0.35g, the track shall have to be attended to urgently.

3.3 Route Proving Run Report should also cover presence/absence of resonance tendency on bridges falling on the route.

Prem Sagar
20.09.14

Annexure 'A'

Track Certificate
(To accompany application)

I do hereby certify that the track on section _____ (station _____ to station _____) from km _____ to km _____, the * weakest portion of which consists of ___ kg rails _____ metres long each with a maximum wear of _____% on _____ sleepers of density _____ and minimum depth of _____ mm ballast cushion below sleepers out of which _____ mm minimum of clean ballast exists under sleepers on consolidated and stable formation is to the required strength which can safely take _____ rolling stock (brief description) ** upto ____ tonnes axle load at a maximum speed of _____ kmph, subject to the local speed restrictions noted below –

SL	From Km	To Km	Between Stations	Nature of Speed Restriction	Brief Reasons For Restrictions

Dy.Chief Engineer (Track)

Countersigned by:

Chief Engineer / Chief Track Engineer

Note

* The weakest portion on which no speed restriction has been imposed only needs to be given.

** The maximum number of locomotives proposed to be coupled together for multiple operations shall be specifically mentioned.

Prem Sagar
28.09.21

CENTRAL RAILWAY

No. T.601.L.9.LHB

3349053

2021/CEDO/SR/13

14-10-21

PCME's OFFICE
CSMT Mumbai
Date: 28.09.2021

76

EDCE(G)
Railway Board

Sub: Introduction for operation of AC III Tier Economy Coach (Transportation code LWACCNE) on LHB platform (83 berth capacity) fitted with pneumatic suspension at secondary stage in FIAT bogies up-to a maximum speed of 110 Kmph or maximum sectional speed whichever is less ,over Central Railways on track maintained as per provision of Indian Railways Permanent Way Manual. June-2020, containing track Geometry standards under para 522.

Ref: 1. RDSO's Speed certificate no. SV.FIAT(SC)/LWACCNE/160 Kmph dated 05.03.2021
2. Railway Board's sanction no. 2021/CEDO/SR/13(LWACCNE)(1) dated 10.05.2021

Vide letter referred at sr. no.1, RDSO has issued Speed Certificate for operation of AC III Tier Economy Coach (Transportation code LWACCNE) on LHB platform (83 berth capacity) fitted with pneumatic suspension at secondary stage in FIAT bogies up-to a maximum speed of 160 Kmph over Indian Railways on track maintained as per provision of Indian Railways Permanent Way Manual. June-2020, containing track Geometry standards under para 522. Accordingly, Railway Board has accorded sanction for operation of above subjected coach at the speed of 160 Kmph over Indian Railway.

While processing the GM's sanction of this coach on Central Railway territory at the Speed of 110 Kmph, it is observed that para nos. xviii, xix, xx and xxxi of Railway Board's sanction pertains to S&T Department cannot be complied due to non availability of the items mentioned in these paras, hence the process of GM's sanction of this coach is held up on Central Railway.

Central railway, vide letter no. T.601.L.9.LHB dated 12.03.2020 & 21.08.2020 (copy enclosed) and letter no. 659.Do.Jsc dated 18.10.2020 (copy enclosed), has requested RDSO and Railway Board to amend all such certificates which are having such paras which cannot be complied and to issue revised/amended Railway Board sanctions of such Rolling Stock. Accordingly, Railway Board has removed these paras while granting sanction for operation of LWCTZAC coach, issued vide letter no. 2021/CEDO/SR/01(1) dated 08.01.2021. But, while granting sanction for operation of LWACCNE coach, vide letter referred at sr, no.2, Railway Board has again included these paras in the Sanction letter.

Therefore, it is requested to delete these paras from the sanction of LWACCNE coach and issue amended Sanction for operation of LWACCNE coach, so that process for GM's sanction for operation of LWACCNE coach can be expedited.

29/09/2021
(A K Gupta)
PCME/CR

C/ Secy CR: For kind information of GM plc

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kindly link file

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(77)

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड) (Railway Board)

No. 2021/CEDO/SR/15 (BOBYNHSM1) New Delhi, dated 27.09.2021

The Director General,
RDSO,
Manak Nagar, -226011.

The General Manager,
All Indian Railways

Managing Director,
DFCCIL,
5th Floor, Pragati Maidan,
Metro Station Building Complex,
New Delhi – 110001.

Sub:- Introduction of new type of rolling stock Broad Gauge Bogie Open Rapid Discharge Hopper wagon type **'BOBYNHSM1' [Maximum Axle Load:22.9t]** to RDSO's Drawing No. WD-09090-S-02 Alt 4 upto a maximum speed of **100 kmph in empty and 75 kmph in loaded condition**, over **IR system** by *Zonal Railways* and upto a maximum speed of **100 kmph in both empty and loaded conditions** over routes of **Eastern and Western Dedicated Freight Corridors** (DFCs) by DFCCIL

Ref:- (i) RDSO's letter No. MW/BOBYN, Dated 22.01.2021
(ii) CCRS's letter संख्या–Q.12011/18/2020-21–त.वि., Dated 07.06.2021
(iii) RDSO's Final Speed Certificate No. MW0SPD(OHRB)/1/2020-O/o PED/SW/RDSO Dated 18.01.2020

With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of new type of rolling stock Broad Gauge Bogie Open Rapid Discharge Hopper wagon type **'BOBYNHSM1' [Maximum Axle Load:22.9t]** to RDSO's Drawing No. WD-09090-S-02 Alt 4 upto a maximum speed of **100 kmph in empty and 75 kmph in loaded condition**, over **IR system** by *Zonal Railways* and upto a maximum speed of **100 kmph in both empty and loaded conditions** over routes of **Eastern and Western Dedicated Freight Corridors** (DFCs) by DFCCIL, with the following stipulations:

i. Observance of all conditions laid down in RDSO's Final Speed Certificate No. MW0SPD(OHRB)/1/2020-O/o PED/SW/RDSO dated 18.01.2020, for operation up to a maximum speed of 100 kmph in empty and 75 kmph in loaded condition, over

29/9/2021

रेल मंत्रालय
Ministry of Railways
रेलवे बोर्ड/Railway Board
अनुलग्नक सहित जारी
Issued with Enclosure
हस्ताक्षर
Signature.....
जारी की तिथि 27/09
Date of Issue.....

IR system and up to a maximum speed of 100 kmph in both empty and loaded conditions, over routes of Eastern and Western Dedicated Freight Corridors (DFCs), shall be ensured on the Railways, while seeking the sanction of General manager/ MD DFCCIL, as the case may be, for introduction of rolling stock on the Railways/ DFCs. All the documents required for the sanction of thr General Manager as per CE(G) directorate/ Railway Board Policy Circular no.6, dated 31.10.2018, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure.

ii. DFCCIL shall introduce wagon over DFCs as per Railway Board's letter no. 2017/Infra/6/33 dated 18.09.2019 on the subject 'Operation of Rolling stock on DFC'

iii. In terms of Railway Board letter No. 2020/CE-II/TS/22.82 dt 20.08.2020, General Manager of Zonal Railway shall identify the route for operation of (CC+8+2)t/ (CC+6+2)t axle load wagon at 75kmph. Further, compliance of all the stipulations mentioned in this letter shall be ensured by the Railways.

iv. For speed up to 60 kmph in Loaded condition for minimum standard of 52 kg (90UTS) rail, USFD testing of rail would be carried out at a higher frequency corresponding to 6 GMT of traffic.'

v. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.

vi. CC+8+2 routes will be prioritized for rail grinding at stipulated frequency depending upon the availability of rail grinding machines over Indian Railway. However, rail grinding is not a prerequisite for operation of CC+8+2 / 22.9t axle load trains at 75 kmph.

vii. Railway should ensure installation of way side lubricators as per provision of IR P.Way manual in a time bound manner.

viii. For regular operation in loaded condition of BOBYNHSM1 wagon over IR routes, Railway shall ensure compliance of the speed restriction mentioned in Para 3.2.4 (ii) of RDSO's FSC No. MW0SPD (OHRB)/1/2020-O/o PED/SW/RDSO dated 18.01.2020.

ix. Location of bridges on which speed restrictions have been imposed shall be notified by the Railways/DFCCIL and incorporated in the working timetable so that all operating staff is aware of the instructions.

x. In case of train (with this wagon in its composition) having EBD of more than 1 km and non provision of second distant signal/4 aspect automatic signalling in the section, action as per A&C no.9 of SEM Pt-1 shall be taken.

xi. No overdue in track/rolling stock maintenance shall be permitted.

27/09

xii. Right powering of loaded trains running with CC+8+2/22.82t axle loaded wagons shall be ensured. Traction power supply shall be suitably augmented to cater for additional load.

xiii. When the wagon is being moved, it shall be ensured that all protruding parts are withdrawn and suitably locked, so that during the run there is no possibility of any infringement occurring to the standard moving dimensions.

xiv. The heap of loading should not exceed the Diagram No. 1D of Indian Railway Schedule of Dimensions (BG) Revised 2004.

xv. Brakes of the locomotive and the rake of the BOBYNHSM1 wagons shall be in good working order during the operation.

xvi. Before initiating the operation, PCME of the concerned Railway/GGM (Mechanical) of the DFCCIL shall arrange to certify the track worthiness and ensure safety of rolling stock. Proper maintenance of the rolling stock shall also be ensured.

xvii. Coupler forces & EBD trials as mentioned in Para 2 & 3 of Appedix-2 of Revised Policy Circular-6 dt. 31.10.1018 shall be done by RDSO and report of the same should be furnished to Commission in due course of time.

xviii. A review shall be made by RDSO regarding conducting of Oscillation Trials on DFC track after a suitable period when a run down and due maintenance track becomes available on DFC network.

xix. Hopper Wagons having similar carrying capacity but different speed potential should not be mixed up to till the PSC of earlier variant is revised and proper sanction for high speed obtained

For Indian Railways:

xx. On Indian Railways, Railways shall provide Adequate number of WILD and 'Weigh Bridges' *before running wagon at 75kmph* in loaded condition. Provision of WILD or equivalent equipment would be as per locations *finalized jointly by PEDCE/P/RB, EDME/Freight/RB & ED/Coal/RB and shall be conveyed to Zonal Railways by EDME/Freight/RailwayBoard*. 100% Weighment of loaded wagons (except consignment excempted from weighment) shall be ensured at the loading points to avoid running of overloaded wagons on track. 'WILD' may, however, be progressively installed *for running wagon upto 60kmph* in loaded condition. The working of 'WILD' shall be closely monitored.

27/09

(80)

xxi. *As per Clause 3.1.1.2.1.1(i) of RDSO's FSC No.* MW0SPD (OHRB)/1/2020-O/o PED/SW/RDSO dated 18.01.2020 , *for o* p *eration in Loaded condition up to 60 kmph for minimum standard of 52kg (90UTS) rail, De-stressing temperature for LWR in Temperature Zone IV would be reduced by 5 ^{0} C (Tm to Tm+5).*

Further, as per clause 3.1.1.2.2(i) for operation in Loaded condition for speed above 60 kmph and up to 75 kmph for minimum standard of 60kg (90UTS) rail, for temperature Zone IV as per IRPWM, de-stressing of LWR at reduced temperature (Tm to Tm+5) shall be completed before onset of winter season. **If De-stressing in Zone IV is not done at lower temperature, loaded wagon will run at 60 kmph during the winter period of 1 st November to 28th /29th of February of next calendar year.**

o/c 27/09

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

No. 2021/CEDO/SR/15 (BOBYNHSM1) **New Delhi, dated 27.09.2021**

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement संख्या–Q.12011/18/2020-21–त.वि., Dated 07.06.21
2. Executive Director (Standards) Motive Power, RDSO, Lucknow
3. Executive Director (Standards) Track-I, RDSO, Lucknow
4. Executive Director ME(Fr) , Railway Board

o/c 27/09

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड

o/c

Issue plz
28/09/2021

28/9/2021

(81)

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड) (Railway Board)

No. 2020/CEDO/SR/25

New Delhi, Dated 27.09.2021

The Director General,
RDSO,
Manak Nagar, -226011

The General Manager,
All Indian Railways

Sub:- Running of Broad Gauge Bogie open wagon type **'BOXNS'** [Maximum Axle Load: **25t**] to RDSO's Drawing no. WD-14014-S-01 Alt.8 at a maximum speed of **100 kmph in empty and 45 kmph in loaded condition** over **Indian Railway BG routes** by *Zonal Railways*

Ref:- (i) RDSO's letter No. MW/SPD/BOXNS, Dated 23.02.2021
(ii) CCRS's letter संख्या– Q.12013/01/2017-18–त.वि, Dated 29.07.2021
(iii) RDSO's Second Revised Final Speed Certificate No. MW/SPD/BG/BOXNS, Dated 30.06.2021
(iv) Railway Board's letter no. 2019/CE-II/TS/25t, Dated 01.09.2020
(v) Railway Board's letter no. 2020/CEDO/SR/25 dated 27.01.2021 and its Corrigendum dated 26.03.2021

With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for running of Broad Gauge Bogie open wagon type **'BOXNS'** [Maximum Axle Load: **25t**] to RDSO's Drawing no. WD-14014-S-01 Alt.8 at a maximum speed of **100 kmph in empty and 45 kmph in loaded condition** over **Indian Railway BG routes,** by *Zonal Railways* with the following stipulations:

A.

i. Observance of all conditions laid down in RDSO's Second Revised Final Speed Certificate No. MW/SPD/BG/BOXNS, Dated 30.06.2021, for operation up to a maximum speed of 100 kmph in empty and 45 kmph in loaded condition over IR system, shall be ensured on the Railways, while seeking the sanction of General manager for introduction of rolling stock on the Railways. All the documents required for the sanction of the General Manager as per CE(G) directorate/ Railway Board Policy Circular no.6, dated 31.10.2018, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure.

ii. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.

D/C 27/09/21

iii. 25t routes will be prioritized for rail grinding at stipulated frequency depending upon the availability of rail grinding machines over Indian Railway. However, rail grinding is not a prerequisite for operation of 25t axle load trains at 45 kmph.

iv. WILDs need to be installed on priority and detachment / maintenance protocols on critical alarms as per JPO issued on WILD vide Railway Board's letter no. 2002/M(N)/960/1 Pt. dated 29/07/2008 or as amended from time to time by Board (M/T&RS, M/I, M/O&BD) to be followed. 25 ton axle load wagon can run on the notified routes on 60 kg 90 UTS rail at 45 kmph, if WILD is installed and in working condition. Locations of wild shall be *finalized jointly by PEDCE/P, EDME/Freight & ED/Coal and shall be conveyed to Zonal Railways by EDME/Freight/Railway Board.*'

v. Compulsory weighment of every rake (except consignment exempted from weighment) along with action on overloaded wagons/rakes as per protocols of JPO issued on weigh bridges (2009) vide Railway Board's letter no. 2007/CE-II/TS/8 dated 02/04/2009 must be ensured. In all cases of un-weighed rakes, except for the exempt category rakes, the existing instruction of running at restricted speeds up to next EIMWB should be strictly followed and these should be part of WTT in case not already so on any Zone. Also, whenever overloading is detected, load adjustment should be compulsorily done and certified so by the station/yard in charge of the location where load adjustment has been done.

vi. Railway should ensure installation of way side lubricators as per provision of IR P.Way manual in a time bound manner.

vii. USFD testing shall be carried out at a frequency, one grade higher than the specified frequency in the USFD manual. On section with GMT more than 60, the existing stipulated frequency of once in one and a half month as per USFD Manual may be continued.

viii. For regular operation in loaded condition of BOXNS wagon [Max. Axle load: 25t], Railway shall ensure all the speed restrictions mentioned in para 3.2.3.2 (b) of RDSO's FSC No. MW/SPD/BG/BOXNS, Dated 30.06.2021.

ix. Location of bridges on which speed restrictions have been imposed shall be notified by the Railways and incorporated in the working timetable so that all operating staff is aware of the instructions.

x. No overdue in track/rolling stock maintenance shall be permitted.

xi. Improvement to track structure, formation, bridges being accelerated in the nominated route.

xii. In case of train (with this wagon in its composition) having EBD of more than 1 km and non provision of second distant signal/4 aspect automatic signalling in the section, action as per A&C no.9 of SEM Pt-1 shall be taken.

27/09/21

xiii. Right powering of loaded trains running with 25t axle loaded wagons shall be ensured.

xiv. Traction power supply being augmented to cater for additional load.

xv. Brakes of the locomotive and the rake of the wagons shall be in good working order during the operation.

xvi. Before initiating the operation, PCME of the concerned Railway shall arrange to certify the track worthiness and ensure safety of rolling stock. Proper maintenance of the rolling stock shall also be ensured.

xvii. GM of the Zonal railways shall identify the routes on which 25 ton axle load wagon can run, having 60 kg 90 UTS rail and other pre-requisite as mentioned above and in Railway Board's letter No. 2019/CE-II/TS/25t, Dated 01.09.2020. Fitness of bridges should also be checked for running at 45 kmph. **However, these routes will be notified by Railway Board on the recommendation of Zonal Railways.**

xviii. List of identified DFC feeder routes fit for 25t axle load operations at 45 kmph speed may be furnished to CCRS office before commercial operation of this wagon.

B. This supersedes Railway Board's letter no. 2020/CEDO/SR/25, dated 27.01.2021 and its Corrigendum dated 26.03.2021.

27/09/21

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

No. 2020/CEDO/SR/25 **New Delhi, Dated 27.09.2021**

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement संख्या– Q.12013/01/2017-18–त.वि, Dated 29.07.21
2. Executive Director (Standards)Motive Power, RDSO, Lucknow
3. Executive Director (Standards) Track-I, RDSO, Lucknow
4. Executive Director ME(Fr), Railway Board

27/09/21

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड

Issue ple 28/09/21

रेल मंत्रालय Ministry of Railways रेलवे बोर्ड/Railway Board जारी किया गया Issue with Enclosure हस्ताक्षर Signature 29/9/2021 जारी की तिथि Date of Issue

(84)

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड) (Railway Board)

No. **2021/CEDO/SR/19** New Delhi, Dated 24.09.2021

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Introduction of Broad-Gauge Rail Borne Maintenance Vehicle (RBMV), Model No. RBMV.01 **[Unique Transportation Code: RBMVP; Maximum Axle Load 18.25t]** to M/s Phooltas's Drawing No. RBMV01-03 00.02 Rev.03 up to a maximum speed of 105 kmph when running on its own power as well as in train formation as a dead vehicle from existing maximum sanctioned speed of 65 kmph over **Indian Railway BG routes**

Ref : :- (i) RDSO's letter No. TM/HM/11/7/RBMV, Dated 05.04.2021
(ii) CCRS's letter संख्या--Q.11017/01/2013–14–त.वि, Dated 29.07.2021
(iii) RDSO Final Speed Certificate No. TM/HM/11/7/RBMV dated 23.03.21

Chief Commissioner of Railway Safety, Lucknow; while forwarding the case for the sanction of the Railway Board for introduction of Broad-Gauge Rail Borne Maintenance Vehicle (RBMV), Model No. RBMV.01 **[Unique Transportation Code: RBMVP; Maximum Axle Load 18.25t]** to M/s Phooltas's Drawing No. RBMV01-03 00.02 Rev.03 up to a maximum speed of 105 kmph, over Indian Railway, has commented that Rail Borne Maintenance Vehicle may also run on DFCIL network after sanction of Railway Board (*item No. ix of Annexure of CCRS letter dated 29.07.2021*).

In view of above, RDSO is advised to examine the above and carryout necessary amendments in Final Speed Certificate.

DA: as above.

Prem Sagar
24.09.21
(प्रेमसागरगुप्ता)
कार्यकारीनिदेशकसिविलइंजी.(जी)/रेलवेबोर्ड
[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

Copy forwarded for information to:

1. Executive Director (Standards) Motive Power, RDSO, Lucknow
2. Executive Director ED Tk(M&MC), Railway Board

रेल मंत्रालय Ministry of Railways (Railway Board) Issue No. 40 Enclosure हस्ताक्षर Signature..... जारी की तिथि Date of Issue.....

o/e
Issue pls
27/09/2021

(85)

937447/2021/CEDO SECTION

भारत सरकार
नागर विमानन मंत्रालय
(रेल संरक्षा आयोग)
GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

फोन / Ph.: 0522-2233087, 2233108 (P&T)
N.E.Rly. 34-140, N.Rly. 23-260
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पूर्वोत्तर रेलवे, भ.रे.प्र. कार्यालय परिसर
16, अशोक मार्ग, लखनऊ-226001

N.E. Railway, DRM OFFICE CAMPUS
16, Ashok Marg, Lucknow-226 001

संख्या–Q.11017/01/2013–14–त.वि

दिनांक–29.07.2021

सेवा में,

सचिव (सिविल इंजी.)
रेल मंत्रालय (रेलवे बोर्ड)
रेल भवन
नई दिल्ली

[ध्यानार्थ:EDCE(G)]

विषय: Increase of sanctioned maximum speed of Broad-Gauge Rail Borne Maintenance Vehicle (RBMV), Model No. RBMV.01 **[Unique Transportation Code: RBMVP; Maximum Axle Load 18.25t]** to M/s Phooltas's Drawing No. RBMV01-00 01.00 Rev.03 on IR system for use by Zonal Railways to maximum speed of 105 kmph when running on its own power as well as in train formation as a dead vehicle from existing maximum sanctioned speed of 65 kmph

संदर्भ: (I) DG/RDSO's letter No. TM/HM/11/7/RBMV, dated 05.04.2021
(II) RDSO's Final Speed Certificate (FSC) no. TM/HM/11/7/RBMV, dated 23.03.2021
(III) This office's letter of even no. dated 05.07.2021
(iv) RDSO's letter No. TM/HM/11/7/RBMV, dated 06.07.2021

Vide reference (I), RDSO has approached this office seeking Railway Board's sanction for introduction of subject rolling stock on IR system for use by Zonal Railways up to a maximum speed of 105 kmph when running on its own power as well as in train formation as a dead vehicle on the basis of RDSO's Final Speed Certificate mentioned under reference (II). Vide reference (III) [copy enclosed], RDSO was asked to furnish certain clarification on the subject case. Clarification on the issues was given by RDSO to this office vide reference (iv) [copy enclosed].

Case has been examined by this office and is found to be in order. Accordingly, the same is being forwarded to Railway Board for necessary action with the recommendation for the sanction of the Central Government for operation of Broad-Gauge **Rail Borne Maintenance Vehicle (RBMV), Model No. RBMV.01 [Unique Transportation Code: RBMVP; Maximum Axle Load 18.25t]** to M/s Phooltas's Drawing No. RBMV01-00 01.00 Rev.03 on IR system for use by Zonal Railways up to a **maximum speed of 105 [ONE HUNDRED FIVE] kmph when running on its own power as well as in train formation as a dead vehicle** with conditions mentioned in **Annexure.**

This is issued with the approval of CCRS.

A Siddiqui
29/7/2021
(अहमद नदीम सिद्दीकी)
उप रेल संरक्षा आयुक्त (यांत्रिक)

संलग्नक: यथोक्त

प्रतिलिपि:
महानिदेशक (ट्रैक मशीन)
ट्रैक मशीन निदेशालय,
अनुसंधान, अभिकल्प एवं मानक संगठन,
मानक नगर, लखनऊ–226011

Annexure/Page 1 of 1

[of CCRS Office's Letter No. Q.11017/01/2013–14–तकनीकी, Dated 29.07.2021 regarding RBMVP]

Conditions to be ensured by the Railway for operation of Broad-Gauge Rail Borne Maintenance Vehicle (RBMV), Model No. RBMV.01 [Unique Transportation Code: RBMVP; Maximum Axle Load 18.25t] to M/s Phoolitas's Drawing No. RBMV01-00 01.00 Rev.03 on IR system for use by Zonal Railways up to a maximum speed of 105 kmph when running on its own power as well as in train formation as a dead vehicle

(i) Observance of all conditions laid down in RDSO's Final Speed Certificate no. TM/HM/11/7/RBMV, Dated 23.03.2021 for operation up to a maximum speed of 105 kmph on its own power as well as in train formation. **Remarks of the Railway against each para of the Speed Certificate shall be submitted to the Commission before start of actual operation of rolling stock.**

(ii) Observance of all permanent and temporary speed restrictions already in force and /or those that may be imposed from time to time on various accounts.

(iii) Location of bridges on which speed restrictions have been imposed shall be notified by the Railways and incorporated in the working timetable.

(iv) In case of locomotive/rolling stock/train (having this machine in its composition) having EBD of more than 1 km and non-provision of second distant signal/4 Aspect Automatic Signalling in the section, action as per A&C no. 9 of SEM Pt-I shall be taken.

(v) Before initiating the movement of the machine, Chief Engineer/Track Machine of the concerned Railway shall arrange to certify the track worthiness and safety of the Rolling stock and they shall also ensure proper maintenance of the rolling stock.

(vi) Brakes of the machine shall be in good working order during the operation.

(vii) When the machine is being moved either on its own power or hauled in train, it shall be ensured that all the protruding parts are withdrawn and suitably locked, so that during the run, there is no possibility of any infringement occurring to the standard moving dimensions.

(viii) RBMVP machine shall be maintained as per 'Maintenance manual for Rail Borne Maintenance Vehicle' issued by RDSO.

(ix) As per Railway Board's letter no. 2017/Infra/6/33 Dated 18.09.2019, MD/DFCCIL has been empowered to sanction, over DFC lines, the use of a locomotive or rolling stock already sanctioned by Central Government (Railway Board). In terms of this letter, Rail Borne Maintenance Vehicle may also run on DFCCIL network after sanction of Railway Board. Under such situation, following issues shall be ensured:

  (a) Present Speed Certificate no. TM/HM/11/7/RBMV, dated 23.03.2021 issued by RDSO is applicable for IR network only. Hence, to enable running of this rolling stock over DFCCIL routes, an amendment to the Speed Certificate TM/HM/11/7/RBMV, dated 23.03.2021 needs to be issued by RDSO duly covering conditions for DFCCIL network also.

  (b) As DFCCIL SOD is different from that of IRSOD, fresh examination for any infringement of DFCCIL SOD should also be done.

***

Anbiddiqui

भारतसरकार Government of India
रेलमंत्रालय Ministry of Railways
(रेलवेबोर्ड) (Railway Board)

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2021/CEDO/SD/01 **New Delhi, Dated 20.09.2021**

The General Manager,
Southern Railway,
Chennai.

Sub : Temporary Condonation of **Vertical infringement (1280mm)** w.r.t IRSOD (BG) Revised, 2004, in the existing overhead structure, ROB No. 9A at Km. 2/0-100 to the **Schedule –I, Chapter-I, Item 10(c)(ii) Note (c),** in connection with electrification at 25 KV AC under Madurai (MDU)- Mnamadurai(MNM) section in Maurai Division of Southern Railway

Ref : (i) CCRS letter संख्या–Q.11017/01/2021–22–त.वि, Dated 23.07.2021
(ii) SR's letter No. 573/RE/MDU-MNM/ROB-9A, Dated 29.06.2021

With reference to the above application; sent through the Chief Commissioner of Railway safety, Lucknow; the sanction of the Ministry of Railways, Railway Board is hereby communicated for Temporary Condonation of Vertical Infringement (1280 mm) in the existing overhead structure, ROB No. 9A at Km. 2/0-100 to the **Schedule –I, Chapter-I, Item 10(c)(ii) Note (c)** in connection with introduction of new electrification at 25 KV AC under Madurai(MDU)- Mnamadurai(MNM) section in Maurai Division of Southern Railway, as shown in Form-XVII and drawings, enclosed with the above mentioned application.

The above sanction of condonation is subject to the following safety precautions:

(i) Rail Level to be marked prominently on the ROB pillars. Raising of track shall not be permitted.
(ii) Locomotives and Rolling Stocks higher than 4.27m shall be treated as ODC. Permitted Locomotives/Rolling Stocks to run under this bridge are mentioned in the Form XVII enclosed with the above mentioned application.
(iii) Restriction of ODC movement shall be notified in Working Time Table.
(iv) Special Engineering Board showing the restrictions shall be placed at the entrance of either side of the bridge.
(v) Speed potential of tramway OHE(if tramway OHE used) shall be ensured in the bridge area.
(vi) ODC/Rolling Stock if stalled/stopped due to any reason under the ROB location, arrangement shall be made to switch off OHE, if long time clearance is not met at the ROB location.
(vii) Measurement of vertical clearance at an interval of three months jointly by TRD and Engineering department to be ensured till the existing infringements are removed. Recorded Measurement should be kept with traceability.
(viii) Track maintenance in the ROB area shall be done in the presence of TRD officials and after every maintenance activity, track measurement shall be done to ascertain minimum clearance available as per EIG approval.
(ix) Special paints to be provided on the structure to indicate the infringement. Clearances shall be painted on the structure for reference.

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(x) Infringement shall be removed by 19.03.2022. The sanction of condonation shall be valid only up to 19.03.2022.

o/c

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

2021/CEDO/SD/01 **New Delhi, Dated 20.09.2021**

Copy forwarded for information to:

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement संख्या–Q.11017/01/2021–22–त.वि, Dated 23.07.2021

2. The Commissioner of Railway Safety, Southern Circle, 7, Seshadri Road, Gandhinagar, Bangalore–560 009 w.r.t. his letter no. Q.1017/015/2020-21/SR/424-26 dated 08.07.2021

o/c

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

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भारत सरकार Government of India
रेलमंत्रालय Ministry of Railways
(रेलवेबोर्ड) (Railway Board)

No. 2021/CEDO/SR/16 New Delhi, Dated 20.09.2021

The Director General,
RDSO,
Manak Nagar, -226011.

The General Manager,
All Indian Railways

Managing Director,
DFCCIL,
5th Floor, Pragati Maidan,
Metro Station Building Complex,
New Delhi – 110001.

Sub:- Introduction of new type of rolling stock Broad Gauge Bogie Hopper wagon type **'BOBYNM1' [Maximum Axle Load:22.32t]** to RDSO's Drawing No. WD-96021-S-02 Alt.10 upto a maximum speed of **100 kmph in empty** and **75 kmph in loaded condition** over **IR system** by *Zonal Railways* and upto a maximum speed of **100 kmph in both empty and loaded conditions** over routes of **Eastern and Western Dedicated Freight Corridors** (DFCs) by *DFCCIL*

Ref:- (i) RDSO's letter No. MW/BOBYN, Dated 31.03.2021
(ii) CCRS's letter संख्या–Q.12011/01/2021–22–त.वि, Dated 29.07.2021
(iii) RDSO's Final Speed Certificate no. MW/BOBYN, Dated 18.03.2021

With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of new type of rolling stock Broad Gauge Bogie Hopper wagon type **'BOBYNM1' [Maximum Axle Load:22.32t]** to RDSO's Drawing No. WD-96021-S-02 Alt.10 upto a maximum speed of **100 kmph in empty** and **75 kmph in loaded condition** over **IR system** by *Zonal Railways* and upto a maximum speed of **100 kmph in both empty and loaded conditions** over routes of **Eastern and Western Dedicated Freight Corridors** (DFCs) by *DFCCIL*, with the following stipulations as under :

i. Observance of all conditions laid down in RDSO's Final Speed Certificate No. MW/BOBYN, Dated 18.03.2021, for operation up to a maximum speed of 100 kmph in empty and 75 kmph in loaded condition, over IR system and up to a maximum speed of 100 kmph in both empty and loaded conditions, over routes of Eastern and Western Dedicated Freight Corridors (DFCs), shall be ensured on the Railways, while seeking the sanction of General manager/ MD DFCCIL, as the case may be, for introduction of rolling stock on the Railways/ DFCs. All the documents required for the sanction of the General Manager as per CE(G) directorate/ Railway Board Policy Circular no.6, dated 31.10.2018, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure.

ii. DFCCIL shall introduce wagon over DFCs as per Railway Board's letter no. 2017/Infra/6/33 dated 18.09.2019 on the subject 'Operation of Rolling stock on DFC'.

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iii. DFCCIL would ensure the mitigating measures as included in Member Engineering Railway Board's DO letter no.2011/CE-II/TS/DFC dated 15.10.2018 letter.

iv. In terms of Railway Board letter No. 2020/CE-II/TS/22.9 dt 20.08.2020, General Manager of Zonal Railway shall identify the route for operation of (CC+8+2)t/ (CC+6+2)t axle load wagon at 75kmph. Further, compliance of all the stipulations mentioned in this letter shall be ensured by the Railways.

v. For speed up to **60 kmph in Loaded condition** for minimum standard of 52 kg (90UTS) rail, USFD testing of rail would be carried out at a higher frequency corresponding to **6 GMT** of traffic.

vi. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.

vii. Railway should ensure installation of way side lubricators as per provision of IR P.Way manual in a time bound manner.

viii. For regular operation in loaded condition of BOBYNM1 wagon over IR routes, Railway shall ensure compliance of all the speed restrictions mentioned in para 3.2.4 (b) of RDSO's FSC No. MW/BOBYN, Dated 18.03.2021.

ix. Location of bridges on which speed restrictions have been imposed shall be notified by the Railways and incorporated in the working timetable so that all operating staff is aware of the instructions.

x. In case of train (with this wagon in its composition) having EBD of more than 1 km and non provision of second distant signal/4 aspect automatic signaling in the section, action as per A&C no.9 of SEM Pt-1 shall be taken.

xi. No overdue in track/rolling stock maintenance shall be permitted.

xii. Right powering of loaded trains running with 22.32t axle loaded wagons shall be ensured. Traction power supply shall be suitably augmented to cater for additional load.

xiii. When the wagon is being moved, it shall be ensured that all protruding parts are withdrawn and suitably locked, so that during the run there is no possibility of any infringement occurring to the standard moving dimensions.

xiv. The heap of loading should not exceed the Diagram No. 1D of Indian Railway Schedule of Dimensions (BG) Revised 2004.

xv. Brakes of the locomotive and the rake of the wagons shall be in good working order during the operation.

xvi. Before initiating the operation, PCME of the concerned Railway/GGM (Mechanical) of the DFCCIL shall arrange to certify the track worthiness and ensure safety of rolling stock. Proper maintenance of the rolling stock shall also be ensured.

xvii. A review shall be made regarding conducting of Oscillation Trials on DFC track after a suitable period when a run down and due maintenance track becomes available on DFC network.

D/e Reg 20-09-21

xviii. Variants of hopper Wagons having different speed potential should not be mixed up till their retro fitment with modified suspension.

For Indian Railways:

xix. On Indian Railways, Railways shall provide Adequate number of WILD and 'Weigh Bridges' *before running wagon at 75kmph* in loaded condition. Provision of WILD or equivalent equipment would be as per locations *finalized jointly by PEDCE/P, EDME/Freight & ED/Coal and shall be conveyed to Zonal Railways by EDME/Freight/Railway Board duly mentioning the above.* 100% Weighment of loaded wagons (except consignment exempted from weighment) shall be ensured at the loading points to avoid running of overloaded wagons on track. 'WILD' may, however, be progressively installed *for running wagon upto 60kmph* in loaded condition. The working of 'WILD' shall be closely monitored.

xx. *As per Clause 3.1.2.1.1(i) of RDSO's FSC No.* MW/BOBYN, dated 18.03.2021, *for operation in Loaded condition up to 60 kmph for minimum standard of 52kg (90UTS) rail, De-stressing temperature for LWR in Temperature Zone IV would be reduced by* 5^0 *C (Tm to Tm+5).*

Further, as per clause 3.1.2.2 of RDSO's FSC No. MW/BOBYN, for operation in Loaded condition for speed above 60 kmph and up to 75 kmph for minimum standard of 60kg (90UTS) rail, for temperature Zone IV as per IRPWM, de-stressing of LWR at reduced temperature (Tm to Tm+5) shall be completed before onset of winter season. If **De-stressing in Zone IV is not done at lower temperature, loaded wagon will run at 60 kmph during the winter period of 1 st November to 28th /29th of February of next calendar year.**

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20.09.21

o/c

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

No. 2021/CEDO/SR/16 **New Delhi, Dated 20.09.2021**

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement संख्या– Q.12011/01/2021–22–त.वि, Dated 29.07.21
2. Executive Director (Standards)Motive Power, RDSO, Lucknow
3. Executive Director (Standards) Track-I, RDSO, Lucknow
4. Executive Director ME(Fr) , Railway Board

o/c

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20.09.21

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]

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रेल मंत्रालय
Ministry of Railways
22/09/21

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भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड) (Railway Board)

No. 2021/CEDO/SR/17(1) New Delhi, Dated 20.09.2021

The Director General,
RDSO,
Manak Nagar, -226011.

The General Manager,
All Indian Railways

Managing Director,
DFCCIL,
5th Floor, Pragati Maidan,
Metro Station Building Complex,
New Delhi – 110001.

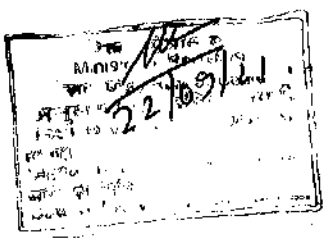
Sub: Introduction of new rolling stock Broad Gauge Bogie Flat Steel wagon type **'BFNV'** [Maximum Axle Load: **22.9t**] to RDSO's Drawing no. WD-19024-S-02 Alt.05 up to a maximum permissible speed of **100 kmph in empty and 75 kmph in loaded condition** over **Indian Railway system,** by *Zonal Railways* and up to a maximum speed of **100 kmph in both empty and loaded conditions** over DFCCIL system by *DFCCIL*

Ref: (i) RDSO's letter no. MW/PWDA/Jindal/Flat Wagon/CSC, Dated 03.06.2021
(ii) RDSO's letter no. MW/BFNV, Dated 27.08.2021& 25/26.08.21
(iii) CCRS office letter No. Q.12011/12/2020-21& & त.वि, Dated 16.08.2021
(iv) RDSO's Final Speed Certificate No.MW/PWDA/Jindal/Flat Wagon/CSC, Dated 02.06.2021 and its Amendment No.1 Dated 09.07.2021 & Amendment No. 2 Dated 27.08.2021

With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of Broad Gauge Bogie Flat Steel wagon type 'BFNV' [Maximum Axle Load: **22.9t**] to RDSO's Drawing no. WD-19024-S-02 Alt.05 up to a maximum permissible speed of 100 kmph in empty and 75 kmph in loaded condition over **Indian Railway system,** by *Zonal Railways* and up to a maximum speed of **100 kmph in both empty and loaded conditions** over DFCCIL system by *DFCCIL*, with the following stipulations:

Issued
21/09/2021

i. Observance of all conditions laid down in RDSO's Final Speed Certificate No.MW/PWDA/Jindal/Flat Wagon/CSC, Dated 02.06.2021 after incorporating modified paras vide Amendment No.1 & 2 dated 09.07.2021 & 27.08.2021 respectively, for operation up to a maximum speed of 100 kmph in empty and



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75 kmph in loaded condition, over IR system and up to a maximum speed of 100 kmph in both empty and loaded conditions, over routes of Eastern and Western Dedicated Freight Corridors (DFCs), shall be ensured on the Railways, while seeking the sanction of General manager/ MD DFCCIL, as the case may be, for introduction of rolling stock on the Railways/ DFCs. All the documents required for the sanction of the General Manager as per CE(G) directorate/ Railway Board Policy Circular No.6, dated 31.10.2018, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure.

ii. DFCCIL shall introduce wagon over DFCs as per Railway Board's letter No. 2017/Infra/6/33 dated 18.09.2019 on the subject 'Operation of Rolling stock on DFC'.

iii. DFCCIL would ensure the mitigating measures as included in Member Engineering Railway Board's DO letter no.2011/CE-II/TS/DFC dated 15.10.2018.

iv. In terms of Railway Board letter No. 2020/CE-II/TS/22.9 dt 20.08.2020, General Manager of Zonal Railway shall identify the route for operation of (CC+8+2) t/ (CC+6+2) t axle load wagon at 75kmph. List of identified routes shall be submitted to the commission before the start of actual operation of rolling stock. Further, compliance of all the stipulations mentioned in this letter shall be ensured by the Railways.

v. For speed up to 60 kmph in Loaded condition for minimum standard of 52 kg (90UTS) rail, USFD testing of rail would be carried out at a higher frequency corresponding to 6 GMT of traffic.

vi. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.

vii. CC+8+2 routes will be prioritized for rail grinding at stipulated frequency depending upon the availability of rail grinding machines over Indian Railway. However, rail grinding is not a prerequisite for operation of CC+8+2 / 22.9t axle load trains at 75 kmph.

viii. Railway should ensure installation of way side lubricators as per provision of IR P. Way manual in a time bound manner.

ix. For regular operation in loaded condition of BFNV wagon over IR routes, Railway shall ensure compliance of the speed restriction mentioned in Para 3.2.1.3 (c) & (d) of RDSO's Final Speed Certificate no. MW/PWDA/Jindal/Flat Wagon/CSC, Dated 02.06.2021 after incorporating modified paras vide Amendment No. 1 & 2 dated 09.07.2021 & 27.08.2021 respectively.

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x. Location of bridges on which speed restrictions have been imposed shall be notified by the Railways/DFCCIL and incorporated in the working timetable so that all operating staff is aware of the instructions.

xi. In case of train (with this wagon in its composition) having EBD of more than 1 km and non-provision of second distant signal/4 aspect automatic signalling in the section, action as per A&C No.9 of SEM Pt-1 shall be taken.

xii. No overdue in track/rolling stock maintenance shall be permitted.

xiii. Right powering of loaded trains running with 22.9t axle loaded wagons shall be ensured. Traction power supply shall be suitably augmented to cater for additional load.

xiv. When the wagon is being moved, it shall be ensured that all protruding parts are withdrawn and suitably locked, so that during the run there is no possibility of any infringement occurring to the standard moving dimensions.

xv. Brakes of the locomotive and the rake of the BFNV wagons shall be in good working order during the operation.

xvi. Before initiating the operation, PCME of the concerned Railway/GGM (Mechanical) of the DFCCIL shall arrange to certify the service worthiness and safety of the rolling stock. Proper maintenance of the rolling stock shall also be ensured.

xvii. Coupler forces & EBD trials as mentioned in Para 2 & 3 of Appedix-2 of Revised Policy Circular-6 dt. 31.10.1018 shall be done and report of the same should be furnished to Commission in due course of time.

xviii. A review shall be made regarding conducting of Oscillation Trials on DFC track after a suitable period when a run down and due maintenance track becomes available on DFC network.

xix. The maximum speed on curve sharper than 875m radius shall be 60kmph in loaded condition.

xx. To utilize the full speed potential of the subject rolling stock it should not be mixed up with other variants of steel coil wagons having less speed potential.

xxi. The maximum length of wheel flat would be 50mm.

For Indian Railways:

xxii. On Indian Railways, Railways shall provide Adequate number of WILD and 'Weigh Bridges' *before running wagon at 75kmph* in loaded condition. Provision of WILD or equivalent equipment would be as per locations *finalized jointly by PEDCE/P,*

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EDME/Freight & ED/Coal and shall be conveyed to Zonal Railways by EDME/Freight Railway Board duly mentioning the above. 100% Weighment of loaded wagons (except consignment exempted from weighment) shall be ensured at the loading points to avoid running of overloaded wagons on track. 'WILD' may, however, be progressively installed *for running wagon up to 60kmph* in loaded condition. The working of 'WILD' shall be closely monitored.

xxiii. *As per* Clause *3.1.1.2.(a)(i) of RDSO's FSC No.* MW/PWDA/Jindal/Flat Wagon/CSC, Dated 02.06.2021, *for operation in Loaded condition up to 60 kmph for minimum standard of 52kg (90UTS) rail, De-stressing temperature for LWR in Temperature Zone IV would be reduced by 5 ^{0}C (Tm to Tm+5).*

xxiv. *Further, as per clause 3.1.1.2.(b)(ii) for operation in Loaded condition for speed above 60 kmph and up to 75 kmph for minimum standard of 60kg (90UTS) rail, for temperature Zone IV as per IRPWM, de-stressing of LWR at reduced temperature (Tm to Tm+5) shall be completed before onset of winter season.* **If De-stressing in Zone IV is not done at lower temperature, loaded wagon will run at 60 kmph during the winter period of 1 st November to 28th /29th of February of next calendar year.**

20.09.21

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

No. 2021/CEDO/SR/17(1) **New Delhi, Dated 20.09.2021**

Copy forwarded for information to:

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement No .Q.12011/12/2020-21& त.वि , Dated 16.08.2021
2. Executive Director (Standards) Motive Power, RDSO, Lucknow
3. Executive Director (Standards) Track-I, RDSO, Lucknow
4. Executive Director ME(Fr), Railway Board

20.09.21

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड
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(96)

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड) (Railway Board)

No. 2021/CEDO/SR/17(2) New Delhi, Dated 20.09.2021

The Director General,
RDSO,
Manak Nagar, -226011.

Sub: Introduction of new rolling stock Broad Gauge Bogie Flat Steel wagon type **'BFNV'** [Maximum Axle Load: **22.9t**] to RDSO's Drawing no. WD-19024-S-02 Alt.05 up to a maximum permissible speed of **100 kmph in empty and 75 kmph in loaded condition** over **Indian Railway system,** by *Zonal Railways* and up to a maximum speed of **100 kmph in both empty and loaded conditions** over DFCCIL system by *DFCCIL*

Ref:- (i) Railway Board's letter No. 2021/CEDO/SR/17(1), Dated 20.09.2021
(ii) RDSO's letter no. MW/PWDA/Jindal/Flat Wagon/CSC, Dated 03.06.2021
(iii) CCRS office letter No. Q.12011/12/2020-21& त.वि , Dated 16.08.2021

With reference to your above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board has been communicated for introduction of Broad Gauge Bogie Flat Steel wagon type **'BFNV'** [Maximum Axle Load: **22.9t**] to RDSO's Drawing no. WD-19024-S-02 Alt.05 up to a maximum permissible speed of **100 kmph in empty and 75 kmph in loaded condition** over **Indian Railway system,** by *Zonal Railways* and up to a maximum speed of **100 kmph in both empty and loaded conditions** over DFCCIL system by *DFCCIL* vide Railway Board's letter under reference (i) above. CCRS, while recommending for introduction of this Rolling Stock to Railway Board has suggested ***following measures to be taken for future improvement of the above rolling stocks*** :

"Efforts should be made to restrict the number of variants of steel coil wagons."

RDSO is requested to take necessary action in the matter.

Prem Sagar 20.09.21
o/c (प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement . Q.12011/12/2020-21& त.वि , Dated 16.08.2021
2. Executive Director (Standards) Motive Power, RDSO, Lucknow
3. Executive Director (Standards) Track-I, RDSO, Lucknow
4. Executive Director ME(Fr) , Railway Board

Prem Sagar 20.09.21
o/c (प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]

Issue Ne
21/09/2021

22/09/21

(17)

भारत सरकार Government of India
रेलमंत्रालय Ministry of Railways
(रेलवेबोर्ड) (Railway Board)

No. 2021/CEDO/SR/18

New Delhi, Dated 20.09.2021

The Director General,
RDSO,
Manak Nagar, -226011.

The General Manager,
All Indian Railways

Managing Director,
DFCCIL,
5th Floor, Pragati Maidan,
Metro Station Building Complex,
New Delhi – 110001.

Sub:- Introduction of new type of rolling stock Broad Gauge Bogie Rail wagon type 'BRN22.9M1' [Maximum Axle Load:**22.9t**] to RDSO's Drawing No. WD-09053-S-02 Alt.3 upto a maximum speed of **100 kmph in empty** and **75 kmph in loaded condition** over **IR system**, *by Zonal Railways* and upto a maximum speed of **100 kmph in both empty and loaded conditions** over routes of **Eastern and Western Dedicated Freight Corridors** (DFCs) by *DFCCIL*

Ref:- (i) RDSO's letter no. No. MW/BRN, Dated 25.01.2021
(ii) CCRS's letter संख्या–Q.12011/17/2020–21–त.वि, Dated 29.07.2021
(iii) RDSO's Final Speed Certificate no. MW/BRN22.9T Dated 15.01.2021

With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of new type of rolling stock Broad Gauge Bogie Rail wagon type **'BRN22.9M1' [Maximum Axle Load:22.9t]** to RDSO's Drawing No. WD-09053-S-02 Alt.3 upto a maximum speed of 100 kmph in empty and 75 kmph in loaded condition over IR system, by Zonal Railways and upto a maximum speed of 100 kmph in both empty and loaded conditions over routes of Eastern and Western Dedicated Freight Corridors (DFCs) by DFCCIL, with the following stipulations:

i. Observance of all conditions laid down in RDSO's Final Speed Certificate No. MW/BRN22.9T Dated 15.01.2021, for operation up to a maximum speed of 100 kmph in empty and 75 kmph in loaded condition, over IR system and up to a maximum speed of 100 kmph in both empty and loaded conditions, over routes of Eastern and Western Dedicated Freight Corridors (DFCs), shall be ensured on the Railways, while seeking the sanction of General manager/ MD DFCCIL, as the case may be, for introduction of rolling stock on the Railways/ DFCs. All the documents required for the sanction of the General Manager as per CE(G) directorate/ Railway Board Policy Circular No.6, dated 31.10.2018, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure.

ii. **DFCCIL** shall introduce wagon over DFCs as per Railway Board's letter no. 2017/Infra/6/33 dated 18.09.2019 on the subject 'Operation of Rolling stock on DFC'.

o/c 20.09.21

iii. DFCCIL would ensure the mitigating measures as included in Member Engineering Railway Board's DO letter no.2011/CE-II/TS/DFC dated 15.10.2018letter.

iv. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.

v. For speed up to **60 kmph in Loaded condition** for minimum standard of 52 kg (90UTS) rail, USFD testing of rail would be carried out at a higher frequency corresponding to **6 GMT** of traffic.

vi. In terms of Railway Board letter No. 2020/CE-II/TS/22.9 dt 20.08.2020, General Manager of Zonal Railway shall identify the route for operation of (CC+8+2)t/ (CC+6+2)t axle load wagon at 75kmph. List of identified routes shall be submitted to the Commission before the start of actual operation of rolling stock. Further, compliance of all the stipulations mentioned in this letter shall be ensured by the Railways.

vii. CC+8+2 routes will be prioritized for rail grinding at stipulated frequency depending upon the availability of rail grinding machines over Indian Railway. However, rail grinding is not a prerequisite for operation of CC+8+2 / 22.9t axle load trains at 75 kmph.

viii. Railway should ensure installation of way side lubricators as per provision of IR P.Way manual in a time bound manner.

ix. For regular operation in loaded condition of BRN22.9M1 wagon over IR routes, Railway shall ensure compliance of the speed restriction mentioned in Para 3.2.5 of RDSO's Final Speed Certificate no. MW/BRN22.9T Dated 15.01.2021.

x. Location of bridges on which speed restrictions have been imposed shall be notified by the Railways/DFCCIL and incorporated in the working timetable so that all operating staff is aware of the instructions.

xi. In case of train (with this wagon in its composition) having EBD of more than 1 km and non-provision of second distant signal/4 aspect automatic signalling in the section, action as per A&C no.9 of SEM Pt-1 shall be taken.

xii. No overdue in track/rolling stock maintenance shall be permitted.

xiii. Right powering of loaded trains running with 22.82t axle loaded wagons shall be ensured.

xiv. Brakes of the locomotive and the rake of the BRN22.9M1 wagons shall be in good working order during the operation.

xv. Before initiating the operation, PCME of the concerned Railway/GGM (Mechanical) of the DFCCIL shall arrange to certify the track worthiness and ensure safety of rolling stock. Proper maintenance of the rolling stock shall also be ensured.

xvi. Coupler forces & EBD trials as mentioned in Para 2 & 3 of Appedix-2 of Revised Policy Circular-6 dt. 31.10.1018 shall be done and report of the same should be furnished to Commission.

xvii. A review shall be made regarding conducting of Oscillation Trials on DFC track after a suitable period when a run down and due maintenance track becomes available on DFC network.

xviii. Variants of BRN Wagons having different speed potential should not be mixed up till their retro fitment with modified suspension.

O/C Reg 20.09.21

xix. When the wagon is being moved, it shall be ensured that all protruding parts are withdrawn and suitably locked, so that during the run there is no possibility of any infringement occurring to the standard moving dimensions.

For Indian Railways:

xx. On Indian Railways, Railways shall provide Adequate number of WILD and 'Weigh Bridges' *before running wagon at 75kmph* in loaded condition. Provision of WILD or equivalent equipment would be as per locations *finalized jointly by PEDCE/P, EDME/Freight & ED/Coal and shall be conveyed to Zonal Railways by EDME/Freight/Railway Board duly mentioning the above.* 100% Weighment of loaded wagons (except consignment excempted from weighment) shall be ensured at the loading points to avoid running of overloaded wagons on track. 'WILD' may, however, be progressively installed *for running wagon upto 60kmph* in loaded condition. The working of 'WILD' shall be closely monitored.

xxi. *As per Clause 3.1.2.1.1(i) of RDSO's FSC No.* MW/BRN22.9T, dated 15.01.2021 *for operation in Loaded condition up to 60 kmph for minimum standard of 52kg (90UTS) rail, De-stressing temperature for LWR in Temperature Zone IV would be reduced by 5 ^{0}C (Tm to Tm+5).*

Further, *as per Clause 3.1.2.2 of RDSO's FSC No.* MW/BRN22.9T, *for operation in Loaded condition for speed above 60 kmph and up to 75 kmph for minimum standard of 60kg (90UTS) rail, for temperature Zone IV as per IRPWM, de-stressing of LWR at reduced temperature (Tm to Tm+5) shall be completed before onset of winter season.* **If De-stressing in Zone IV is not done at lower temperature, loaded wagon will run at 60 kmph during the winter period of 1 st November to 28th /29th of February of next calendar year.**

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20.09.21

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

No. 2021/CEDO/SR/18 **New Delhi, Dated 20.09.2021**

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement संख्या–Q.12011 / 17 / 2020–21–त.वि, Dated 29.07.21
2. Executive Director (Standards)Motive Power, RDSO, Lucknow
3. Executive Director (Standards) Track-I, RDSO, Lucknow
4. Executive Director ME(Fr) , Railway Board

Reg
20.09.21

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]

Issue pls
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भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड) (Railway Board)

No. 2021/CEDO/SR/20 **New Delhi, Dated 06.09.2021**

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Introduction of operation of **Points & Crossing Tamping Machine Model CDC-16W & XCD-16W,** supplied by M/s CRCC High Tech Equipment Corporation Ltd., China [Maximum Axle Load: **21.6t**] to its GA Drawing no. CDC16W(IND)-00 **upto a maximum speed of 65 kmph when running on its own power as well as in train formation** over **Indian Railway**, by Zonal Railways

Ref: (i) RDSO's letter No. TM/HM/11/45/PCT CRCC, Dated 25.01.2021
(ii) CCRS office letter No.Q.12011/08/2020–21–त.वि, Dated 11.08.2021

Chief Commissioner of Railway Safety, Lucknow; while forwarding the case for the sanction of the Railway Board for introduction of operation of **Points & Crossing Tamping Machine Model CDC-16W & XCD-16W,** supplied by M/s CRCC High Tech Equipment Corporation Ltd., China [Maximum Axle Load: **21.6t**] to its GA Drawing no. CDC16W(IND)-00 **upto a maximum speed of 65 kmph when running on its own power as well as in train formation** over **Indian Railway,** by *Zonal Railways*, has recommended certain measures to be taken before introduction of the above rolling stocks, reproduced as under:

1. Unique Transportation Code for the rolling stock should be obtained from Board
2. There are separate graphs for pre-tamping (Measuring Run) and post tamping run in the HMI. A modification in the software should be made to obtain 3 graphs viz. pre-tamping, post tamping and desired values in superimposed condition.
3. During pre-tamping/measuring run data was captured in the form of graph only. There should be a provision to show parameters recorded during measuring run in tabular form.
4. Provisions should be made for recording & subsequent downloading of various events like braking, motoring, FoP, LoP, water, level, compulsive driving etc.
5. Speedometer is provided in both the cabins but there is no provision to record the instantaneous speed of the machine which can be later downloaded and analyzed. Suitable provisions similar to locos must be made to record & download the instantaneous speed.
6. Deadman's handle and/or Vigilance Control Device similar to what is available in locomotives should be provided. It is much more essential in this rolling stock as it is driven by single crew.
7. Provision for pure mechanical emergency brake lever should be made in both the cabs.
8. Provision of fire survival cable should be made in the communication system and brake system for enhanced fire safety.
9. Mechanical parking brake was provided on the axle 1 & 2 of the machine. There should also be provision for electro-pneumatic parking brakes.

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10. Provisions should be made for logging the actual working/operation timings of machine so that performance of the machine can be compared against its rated output
11. Earth connections of the Rolling stock i.e. Body to Bogie and Bogie to axle shall always be maintained in healthy condition.
12. Before the start of machine, the operator should ensure that the maintenance is started from the 'zero point' indicated by the SSE/P-Way so as to compare the post run data captured by the machine with the actual measurements on the ground.
13. Provision of Volume Control in PA/PIS should be provided in both the cabs.
14. When the machine is being moved either on its own power or hauled in train, it shall be ensured that all the protruding parts are withdrawn and suitably locked, so that during the run, there is no possibility of any infringement with the standard moving dimensions.
15. Suitable signage to warn the crew and workers against the 25KVA OHE should be stencilled on the machine. DOs & DON'Ts for working with this machine shall be displayed inside the rolling stock
16. Knowledge of the operator regarding working of the machine was checked. Machine operators need to be properly trained as far as working of machine is concerned and operators must be issued machine wise 'Competency Certificate'.
17. Detailed Maintenance Manual having colour photographs should be available with the machine.
18. First Aid Box having prescribed medicines & other items should be mounted at an appropriate place, List of medicines/items should be pasted inside the first aid box
19. Provision should be made for recording & displaying of fuel oil pressure for early tracing of fuel leakage.
20. All the tools were kept in a chaotic manner inside the machine. A standard tool box including tool kit should be provided. List of these tools should be pasted inside the cabin.
21. Speed limit of the machine should be prominently displayed on either side of the cab

RDSO is requested to examine the issues involved and submit comments at the earliest.

DA: as above.

Prem Sagar
06.09.21

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

No. 2021/CEDO/SR/20 **New Delhi, Dated 06.09.2021**

Copy forwarded for information to :

1. Executive Director (Standards) Motive Power, RDSO, Lucknow
2. Executive Director (Standards) Track-I, RDSO, Lucknow
3. EDTk(M&Mc) Railway Board

9487/3/2021/EDO SECTION

भारत सरकार
नागर विमानन मंत्रालय
(रेल संरक्षा आयोग)
GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

फोन/Ph.: 0522-2233087, 2233108 (P&T)
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E-mail: chiefcom@rediffmail.com

पूर्वोत्तर रेलवे, मं.रे.प्र. कार्यालय परिसर
16, अशोक मार्ग, लखनऊ-226001

N.E. Railway, DRM OFFICE CAMPUS
16, Ashok Marg, Lucknow-226 001

संख्या–Q.12011/08/2020–21–त.वि

दिनांक–11.08.2021

सेवा में,

सचिव (सिविल इंजी.)
रेल मंत्रालय (रेलवे बोर्ड)
रेल भवन
नई दिल्ली

[ध्यानार्थ EDCE(G)]

विषय: Introduction of operation of **Points & Crossing Tamping Machine Model CDC-16W & XCD-16W,** supplied by M/s CRCC High Tech Equipment Corporation Ltd., China [Maximum Axle Load: **21.6t**] to its GA Drawing no. CDC16W(IND)-00 **upto a maximum speed of 65 kmph when running on its own power as well as in train formation over IR** by Zonal Railways

संदर्भ: (i) DG/RDSO's letter No. TM/HM/11/45/PCT CRCC, Dated 25.01.2021
(ii) RDSO's Provisional Speed Certificate (PSC) No. TM/HM/11/45/PCT CRCC, Dated 30.04.2020 alogwith its Amendment no. 1 & 2 Dated 02.12.2020 and 20.01.2021 respectively

Vide reference (i), RDSO has approached this office seeking Railway Board's sanction for introduction of subject rolling stock up to a maximum speed of 65 kmph when running on its own power as well as in train formation over IR by Zonal Railways on the basis of RDSO's Provisional Speed Certificate mentioned under reference (ii).

Statutory Inspection of the subject rolling stock by the CCRS was carried out on 24.06.2021 at Charbagh Station Lucknow, Northern Railway. Inspection report of the machine is enclosed as **Annexure-1.**

Case has been examined by this office and is found to be in order. Accordingly, the same is being forwarded to Railway Board for necessary action with the recommendation for the sanction of the Central Government for operation of Points & Crossing Tamping Machine Model CDC-16W & XCD-16W, supplied by M/s CRCC High Tech Equipment Corporation Ltd., China [Maximum Axle Load: **21.6t**] to its GA Drawing no. CDC16W(IND)-00 **upto a maximum speed of 65 [SIXTY FIVE] kmph when running on its own power as well as in train formation over IR** by Zonal Railways with conditions mentioned in **Annexure-2**

Before introduction of operation of this machine, items mentioned in **Annexure-3** shall be implemented. Further, items mentioned in **Annexure-4** shall be implemented during future production of such machines.

This is issued with the approval of Chief Commissioner of Railway Safety.

11/8/2021
(अहमद नदीम सिद्दीकी)
उप रेल संरक्षा आयुक्त (यांत्रिक)

संलग्नक: यथोक्त

प्रतिलिपि:
महानिदेशक (ट्रैक मशीन),
ट्रैक मशीन निदेशालय, (एनेक्सी–1),
अनुसंधान, अभिकल्प एवं मानक संगठन,
मानक नगर, लखनऊ–226011

Annexure-2/Page 1 of 1

[of CCRS Office's Letter No. Q.12011/8/2020-21-तं.नि., Dated 11.08.2021 regarding PCT Model CDC-16W & XCD-16W]

Conditions to be ensured by the Railway for operation of Points & Crossing Tamping Machine Model CDC-16W & XCD-16W, supplied by M/s CRCC High Tech Equipment Corporation Ltd., China [Maximum Axle Load: 21.6t] to its GA Drawing no. CDC16W(IND)-00 upto a maximum speed of 65 kmph when running on its own power as well as in train formation over IR by Zonal Railways

1. Observance of all conditions laid down in RDSO's Provisional Speed Certificate (PSC) No. TM/HM/11/45/PCT CRCC, Dated 30.04.2020 alog with its Amendment no. 1 & 2 Dated 02.12.2020 and 20.01.2021 respectively for operation up to a maximum speed of 65 kmph on its own power as well as in train formation. **Remarks of the Railway against each para of the Speed Certificate shall be submitted to the Commission before start of actual operation of rolling stock.**
2. Observance of all permanent and temporary speed restrictions already in force and /or those that may be imposed from time to time on various accounts.
3. Location of bridges on which speed restrictions have been imposed shall be notified by the Railways and incorporated in the working timetable.
4. In case of locomotive/rolling stock/train (having this machine in its composition) having EBD of more than 1 km and non-provision of second distant signal/4 Aspect Automatic Signalling in the section, action as per A&C no. 9 of SEM Pt-I shall be taken.
5. Before initiating the movement of the machine, Chief Engineer/Track Machine of the concerned Railway shall arrange to certify the track worthiness and safety of the Rolling stock and they shall also ensure proper maintenance of the rolling stock.
6. Brakes of the machine shall be in good working order during the operation.
7. When the machine is being moved either on its own power or hauled in train, it shall be ensured that all the protruding parts are withdrawn and suitably locked, so that during the run, there is no possibility of any infringement occurring to the standard moving dimensions.
8. The machine when running in train formation, a speed restriction of 15 kmph shall be imposed on diamond crossings. No speed restriction on main line route at points and crossings is required. Speed restriction on turnout side of points and crossings shall be 15 kmph. The movement of the machine in case of Track Machine in block section, instructions of the para 708(4) of Indian Railways Track Machine Manual, Septemer-2019 shall be followed.
9. Points and Crossing Tamping Machine shall be maintained as per 'Maintenance manual for 'Points & Crossing Tamping Machines' issued by RDSO.
10. As per Railway Board's letter no. 2017/Infra/6/33 Dated 18.09.2019, MD/DFCCIL has been empowered to sanction, over DFC lines, the use of a locomotive or rolling stock already sanctioned by Central Government (Railway Board). In terms of this letter, Points & Crossing Tamping Machine Model CDC-16W & XCD-16W may also run on DFCCIL network after sanction of Railway Board. Under such situation, following issues shall be ensured:
    (a) Present Speed Certificate no. TM/HM/11/45/PCT CRCC, Dated 30.04.2020 alogwith its Amendment no. 1 & 2 Dated 02.12.2020 and 20.01.2021 respectively, issued by RDSO is applicable for IR network only. Hence, to enable running of this rolling stock over DFCCIL routes, an amendment to this Speed Certificate needs to be issued by RDSO duly covering conditions for DFCCIL network also.
    (b) As DFCCIL SOD is different from that of IRSOD, fresh examination for any infringement of DFCCIL SOD should also be done.

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94874[illegible]'2021/CEDO SECTION

[of CCRS Office's Letter No. Q.12011/8/2020-21-ति.वि., Dated 11.08.2021 regarding PCT Model CDC-16W & XCD-16W]

Measures for improvement of the inspected Machine

Statutory inspection of the Points & Crossing Tamping Machine Model CDC-16W & XCD-16W by the CCRS was carried out on 24.06.2021 at Lucknow Junction, Northern Railway. Para 2 of CCRS Inspection Report suggests about some measures for improvement of the inspected Machine. Following measures shall be taken before introduction of this Machine:

1. Unique Transportation Code for the rolling stock should be obtained from Board
2. There are separate graphs for pre-tamping (Measuring Run) and post tamping run in the HMI. A modification in the software should be made to obtain 3 graphs viz. pre-tamping, post tamping and desired values in superimposed condition.
3. During pre-tamping/measuring run data was captured in the form of graph only. There should be a provision to show parameters recorded during measuring run in tabular form.
4. Provisions should be made for recording & subsequent downloading of various events like braking, motoring, FoP, LoP, water, level, compulsive driving etc.
5. Speedometer is provided in both the cabins but there is no provision to record the instantaneous speed of the machine which can be later downloaded and analysed. Suitable provisions similar to locos must be made to record & download the instantaneous speed.
6. Deadman's handle and/or Vigilance Control Device similar to what is available in locomotives should be provided. It is much more essential in this rolling stock as it is driven by single crew.
7. Provision for pure mechanical emergency brake lever should be made in both the cabs.
8. Provision of fire survival cable should be made in the communication system and brake system for enhanced fire safety.
9. Mechanical parking brake was provided on the axle 1 & 2 of the machine. There should also be provision for electro-pneumatic parking brakes.
10. Provisions should be made for logging the actual working/operation timings of machine so that performance of the machine can be compared against its rated output
11. Earth connections of the Rolling stock i.e. Body to Bogie and Bogie to axle shall always be maintained in healthy condition.
12. Before the start of machine, the operator should ensure that the maintenance is started from the 'zero point' indicated by the SSE/P-Way so as to compare the post run data captured by the machine with the actual measurements on the ground.
13. Provision of Volume Control in PA/PIS should be provided in both the cabs.
14. When the machine is being moved either on its own power or hauled in train, it shall be ensured that all the protruding parts are withdrawn and suitably locked, so that during the run, there is no possibility of any infringement with the standard moving dimensions.
15. Suitable signage to warn the crew and workers against the 25KVA OHE should be stencilled on the machine. DOs & DON'Ts for working with this machine shall be displayed inside the rolling stock
16. Knowledge of the operator regarding working of the machine was checked. Machine operators need to be properly trained as far as working of machine is concerned and operators must be issued machine wise 'Competency Certificate'.
17. Detailed Maintenance Manual having colour photographs should be available with the machine.
18. First Aid Box having prescribed medicines & other items should be mounted at an appropriate place. List of medicines/items should be pasted inside the first aid box
19. Provision should be made for recording & displaying of fuel oil pressure for early tracing of fuel leakage.
20. All the tools were kept in a chaotic manner inside the machine. A standard tool box including tool kit should be provided. List of these tools should be pasted inside the cabin.
21. Speed limit of the machine should be prominently displayed on either side of the cab

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Annexure-4/Page 1 of 1

[of CCRS Office's Letter No. Q/12011/8/2020-21-ITR, Dated 11.08.2021 regarding PCT Model CDC-16W & XCD-16W *]*

Measures for future improvement c

Statutory inspection of the Points & Crossing Tamping Machine Model CDC-16W & XCD-16W by the CCRS was carried out on 24.06.2021 at Lucknow Junction, Northern Railway. Para 3 of CCRS Inspection Report suggests about following measures for future improvement of the Machine. Extract of this para are given below for taking necessary action by the Railway for its implementation:

1. At present the stock is running at a speed of 65 kmph on its own power as well as in train formation on the basis of Provisional Speed Certificate. Oscillation trial of the stock should be conducted at the earliest and Final Speed Certificate issued to utilize the full speed potential of the stock
2. Necessary provision should be made to record the conversation between staff present in the cabs for reference during enquiry of any unusual incident/accident
3. 4 No CCTV cameras have been provided to assist the operator carry out the tamping operations. However, there is no provision to record the CCTV footage for reference during investigation/ enquiry of an unusual incident. Necessary modifications should be made to record CCTV footage for at least 30 days.
4. Optical Fiber based Linear Heat Detection (LHD) system should be provided wherever there is bunching of cables. This will help in detecting heating spots before they are converted in to fire.
5. Track Machines must be offered for statutory inspection only after commissioning & calibration/fine tuning
6. Application must accompany track parameters before and after maintenance of a location like turn out, points & crossing etc and its analysis against the codal provisions clearly bringing out the effectiveness of the machine. The parameters recorded by the machine after maintenance must closely match the parameters measured manually
7. Comparison of salient features of machine against the tendered specification along with statement of deviation, if any, must be submitted along with the application

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3365309

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भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड) (Railway Board)

No. 2021/CEDO/SR/21 New Delhi, Dated 06.09.2021

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Introduction of operation of **Shoulder Ballast Cleaning Machine Model BS-550**, supplied by M/s CRCC High Tech Equipment Corporation Ltd., China [Maximum Axle Load: **21.5t**] to its Drawing no. BS 550 (IND)-00 upto a maximum speed of **65 kmph when running on its own power as well as in train formation** over **Indian Railway**, by *Zonal Railways*

Ref: (i) RDSO's letter No. TM/HM/11/44/SBCM CRCC, Dated 02.02.2021
(ii) CCRS office letter No. Q.12011/06/2020–21–त.वि, Dated 11.08.2021

Chief Commissioner of Railway Safety, Lucknow; while forwarding the case for the sanction of the Railway Board for introduction of operation of **Shoulder Ballast Cleaning Machine Model BS-550**, supplied by M/s CRCC High Tech Equipment Corporation Ltd., China [Maximum Axle Load: **21.5t**] to its Drawing no. BS 550 (IND)-00 upto a maximum speed of **65 kmph when running on its own power as well as in train formation** over **Indian Railway**, by *Zonal Railways*, has recommended certain measures to be taken before introduction of the above rolling stocks, reproduced as under:

1. Unique Transportation Code for the rolling stock should be obtained from Board.
2. Provisions should be made for recording of various events like braking, motoring, FoP, LoP, water, level, compulsive driving etc.
3. Speedometer is provided in both the cabins but there is no provision to record the instantaneous speed of the machine which can be later downloaded and analysed. Suitable provisions similar to locos must be made to record & download the instantaneous speed.
4. Deadman's handle and/or Vigilance Control Device, Similar to what is available in Locomotives, should be provided. It is much more essential in this rolling stock as it is driven by single crew.
5. Provision for pure mechanical emergency brake lever should be made in both the cabs.
6. Provision of fire survival cable should be made in the communication system and brake system for enhanced fire safety.
7. Earth connections of the Rolling stock i.e. Body to Bogie and Bogie to axle shall always be maintained in healthy condition.
8. Provision of Volume Control in PA/PIS should be provided in both the cabs.
9. When the machine is being moved either on its own power or hauled in train, it shall be ensured that all the protruding parts are withdrawn and suitably locked, so that during the run, there is no possibility of any infringement with the standard moving dimensions.

o/c
Issue plz
07/09/21

8/9/21

10. Suitable signage to warn the crew and workers against the 25KVA OHE should be stenciled on the machine. DOs & DON'Ts for the working with this machine shall be displayed inside the rolling stock
11. Knowledge of the operator regarding working of the machine was checked. Machine operators need to be properly trained as far as working of machine is concerned and operators must be issued machine wise 'Competency Certificate'.
12. Detailed Maintenance Manual having colour photographs should be available with the machine.
13. First Aid Box having prescribed medicines & other items should be mounted at an appropriate place. List of medicines/items should be pasted inside the first aid box
14. Provision should be made for recording & displaying of fuel oil pressure for early tracing of fuel leakage.
15. All the tools were kept in a chaotic manner inside the machine. A standard tool box including tool kit should be provided. List of these tools should be pasted inside the cabin.
16. Speed limit of the machine should be prominently displayed on either side of the cab

RDSO is requested to examine the issues involved and submit comments at the earliest.

DA: as above.

Prem Sagar
06.09.21

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

No. 2021/CEDO/SR/21 **New Delhi, Dated 06.09.2021**

Copy forwarded for information to :

1. Executive Director (Standards) Motive Power, RDSO, Lucknow
2. Executive Director (Standards) Track-I, RDSO, Lucknow
3. EDTk(M&Mc) Railway Board

953252021/CEDO SECTION

भारत सरकार
नागर विमानन मंत्रालय
(रेल संरक्षा आयोग)
GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

फोन/Ph.: 0522-2233087, 2233108 (P&T)
N.E.Rly. 31-140, N.Rly. 23-290
फैक्स/Fax-0522-2233095, 2233087
E-mail : chiefcom@rediffmail.com

पूर्वोत्तर रेलवे, मं.रे.प्र. कार्यालय परिसर
16, अशोक मार्ग, लखनऊ-226001

N.E. Railway, DRM OFFICE CAMPUS
16, Ashok Marg, Lucknow-226 001

संख्या–Q.12011/06/2020–21–त.वि

दिनांक–11.08.2021

सेवा में,

सचिव (सिविल इंजी.)
रेल मंत्रालय (रेलवे बोर्ड)
रेल भवन
नई दिल्ली

[ध्यानार्थ:EDCE(G)]

विषय: Introduction of operation of **Shoulder Ballast Cleaning Machine Model BS-550,** supplied by M/s CRCC High Tech Equipment Corporation Ltd., China [Maximum Axle Load: **21.5t**] to its Drawing no. BS 550 (IND)-00 upto a maximum speed of **65 kmph when running on its own power as well as in train formation** by Zonal Railways

संदर्भ: (i) DG/RDSO's letter No. TM/HM/11/44/SBCM CRCC, Dated 02.02.2021
(ii) RDSO's Provisional Speed Certificate (PSC) No TM/HM/11/44/SBCM CRCC, Dated 03.01.2020 along with its Amendments no. 1 & 2 Dated 02.12.2020 and 29.01.2021 respectively

Vide reference (i), RDSO has approached this office seeking Railway Board's sanction for introduction of subject rolling upto a maximum speed of 65 kmph when running on its own power as well as in train formation by Zonal Railways on the basis of RDSO's Provisional Speed Certificate mentioned under reference (ii).

Statutory inspection of the subject rolling stock by the CCRS was carried out on 24.06.2021 at Lucknow Junction, Northern Railway. Inspection report of the machine is enclosed as **Annexure-1.**

Case has been examined by this office and is found to be in order. Accordingly, the same is being forwarded to Railway Board for necessary action with the recommendation for the sanction of the Central Government for operation of **Shoulder Ballast Cleaning Machine Model BS-550,** supplied by M/s CRCC High Tech Equipment Corporation Ltd., China [Maximum Axle Load: **21.5t**] to its Drawing no. BS 550 (IND)-00 upto a maximum speed of **65 [SIXTY FIVE] kmph when running on its own power as well as in train formation** by Zonal Railways with conditions mentioned in **Annexure-2**

Before introduction of operation of this machine, items mentioned in **Annexure-3** shall be implemented. Further, items mentioned in **Annexure-4** shall be implemented in future production of such machines.

This is issued with the approval of Chief Commissioner of Railway Safety.

11/8/2021
(अहमद नदीम सिद्दीकी)
उप रेल संरक्षा आयुक्त (यांत्रिक)

संलग्नक: यथोक्त

प्रतिलिपि:
महानिदेशक (ट्रैक मशीन)
ट्रैक मशीन निदेशालय,
अनुसंधान, अभिकल्प एवं मानक संगठन,
मानक नगर, लखनऊ–226011

Annexure-2/Page 1 of 1

[of CCRS Office's Letter No. Q.12011/06/2020-21-रा.वि., Dated 11.08.2021 regarding SBCM Model BS-550*]*

Conditions to be ensured by the Railway for operation of Shoulder Ballast Cleaning Machine Model BS-550, supplied by M/s CRCC High Tech Equipment Corporation Ltd., China [Maximum Axle Load: 21.5t] to its Drawing no. BS 550 (IND)-00 upto a maximum speed of 65 kmph when running on its own power as well as in train formation by Zonal Railways

1. Observance of all conditions laid down in RDSO's Provisional Speed Certificate no. TM/HM/11/44/SBCM CRCC, Dated 03.01.2021 alog with its Amendments no. 1 & 2 Dated 02.12.2020 and 29.01.2021 respectively for operation up to a maximum speed of 65 kmph on its own power as well as in train formation. **Remarks of the Railway against each para of the Speed Certificate shall be submitted to the Commission before start of actual operation of rolling stock.**
2. Observance of all permanent and temporary speed restrictions already in force and /or those that may be imposed from time to time on various accounts.
3. Location of bridges on which speed restrictions have been imposed shall be notified by the Railways and incorporated in the working timetable.
4. In case of locomotive/rolling stock/train (having this machine in its composition) having EBD of more than 1 km and non-provision of second distant signal/4 Aspect Automatic Signalling in the section, action as per A&C no. 9 of SEM Pt-I shall be taken.
5. Before initiating the movement of the machine, Chief Engineer/Track Machine of the concerned Railway shall arrange to certify the track worthiness and safety of the Rolling stock and they shall also ensure proper maintenance of the rolling stock.
6. Brakes of the machine shall be in good working order during the operation.
7. When the machine is being moved either on its own power or hauled in train, it shall be ensured that all the protruding parts are withdrawn and suitably locked, so that during the run, there is no possibility of any infringement occurring to the standard moving dimensions.
8. The machine when running in train formation, a speed restriction of 15 kmph shall be imposed on diamond crossings. No speed restriction on main line route at points and crossings is required. Speed restriction on turnout side of points and crossings shall be 15 kmph. The movement of the machine in case of Track Machine in block section, instructions of the para 708(4) of Indian Railways Track Machine Manual, Septemer-2019 shall be followed.
9. Shoulder Ballast Cleaning Machine shall be maintained as per 'Maintenance manual for Shoulder Ballast Cleaning Machine' issued by RDSO.
10. As per Railway Board's letter no. 2017/Infra/6/33 Dated 18.09.2019, MD/DFCCIL has been empowered to sanction, over DFC lines, the use of a locomotive or rolling stock already sanctioned by Central Government (Railway Board). In terms of this letter, Shoulder Ballast Cleaning Machine Model BS-550 may also run on DFCCIL network after sanction of Railway Board. Under such situation, following issues shall be ensured:
    (a) Present Speed Certificate no. TM/HM/11/44/SBCM CRCC, Dated 03.01.2021 alogwith its Amendments no. 1 & 2 Dated 02.12.2020 and 29.01.2021 respectively, issued by RDSO is applicable for IR network only. Hence, to enable running of this rolling stock over DFCCIL routes, an amendment to this Speed Certificate needs to be issued by RDSO duly covering conditions for DFCCIL network also.
    (b) As DFCCIL SOD is different from that of IRSOD, fresh examination for any infringement of DFCCIL SOD should also be done.

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Ansiddiqui

953257 2021/CEDO SECTION

Annexure-3/Page 1 of 1

[of CCRS Office's Letter No. Q.12011/06/2020-21-वि.वि., Dated 11.08.2021 regarding SBCM Model BS-550*]*

Measures for improvement of the inspected Machine

Statutory inspection of the Shoulder Ballast Cleaning Machine Model BS-550 by the CCRS was carried out on 24.06.2021 at Lucknow Junction, Northern Railway. Para 2 of CCRS Inspection Report suggests about some measures for improvement of the inspected Machine. Following measures shall be taken before introduction of this Machine:

1. Unique Transportation Code for the rolling stock should be obtained from Board.
2. Provisions should be made for recording of various events like braking, motoring, FoP, LoP, water, level, compulsive driving etc.
3. Speedometer is provided in both the cabins but there is no provision to record the instantaneous speed of the machine which can be later downloaded and analysed. Suitable provisions similar to locos must be made to record & download the instantaneous speed.
4. Deadman's handle and/or Vigilance Control Device, Similar to what is available in Locomotives, should be provided. It is much more essential in this rolling stock as it is driven by single crew.
5. Provision for pure mechanical emergency brake lever should be made in both the cabs.
6. Provision of fire survival cable should be made in the communication system and brake system for enhanced fire safety.
7. Earth connections of the Rolling stock i.e. Body to Bogie and Bogie to axle shall always be maintained in healthy condition.
8. Provision of Volume Control in PA/PIS should be provided in both the cabs.
9. When the machine is being moved either on its own power or hauled in train, it shall be ensured that all the protruding parts are withdrawn and suitably locked, so that during the run, there is no possibility of any infringement with the standard moving dimensions.
10. Suitable signage to warn the crew and workers against the 25KVA OHE should be stenciled on the machine. DOs & DON'Ts for the working with this machine shall be displayed inside the rolling stock.
11. Knowledge of the operator regarding working of the machine was checked. Machine operators need to be properly trained as far as working of machine is concerned and operators must be issued machine wise 'Competency Certificate'.
12. Detailed Maintenance Manual having colour photographs should be available with the machine.
13. First Aid Box having prescribed medicines & other items should be mounted at an appropriate place. List of medicines/items should be pasted inside the first aid box
14. Provision should be made for recording & displaying of fuel oil pressure for early tracing of fuel leakage.
15. All the tools were kept in a chaotic manner inside the machine. A standard tool box including tool kit should be provided. List of these tools should be pasted inside the cabin.
16. Speed limit of the machine should be prominently displayed on either side of the cab

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Arsiddiqui

953252/2021/CEDO SECTION

[of CCRS Office's Letter No. Q.12011/06/2020-21-ग.वि., Dated 11.08.2021 regarding SBCM Model BS-550*]*

Measures Suggested for future improvement

Statutory inspection of the Shoulder Ballast Cleaning Machine Model BS-550 by the CCRS was carried out on 24.06.2021 at Lucknow Junction, Northern Railway. Paras 3 of CCRS Inspection Report suggests about following measures for future improvement of the Machine. Extract of this para are given below for taking necessary action by the Railway for its implementation:

1. At present the stock is running at a speed of 65 kmph on its own power as well as in train formation on the basis of Provisional Speed Certificate. Oscillation trial of the stock should be conducted at the earliest and Final Speed Certificate issued to utilize the full speed potential of the stock
2. Necessary provision should be made to record the conversation between staff present in the cabs for reference during enquiry of any unusual incident/accident
3. 4 No CCTV cameras have been provided to assist the operator carry out the tamping operations. However, there is no provision to record the CCTV footage for reference during investigation/ enquiry of an unusual incident. Necessary modifications should be made to record CCTV footage for at least 30 days.
4. Optical Fiber based Linear Heat Detection (LHD) system should be provided wherever there are bunching of cables. This will help in detecting heating spots before they are converted in to fire.
5. Track Machines must be offered for statutory inspection only after commissioning & calibration/fine tuning
6. Comparison of salient features of machine against the tendered specification along with statement of deviation, if any, must be submitted along with the application

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भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड) (Railway Board)

No. 2021/CEDO/SR/22 New Delhi, Dated 06.09.2021

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Introduction of operation of **Multipurpose Tamper (MPT) Model DDC-16W, manufactured by M/s CRCC High Tech Equipment Corporation Ltd., China** [Maximum Axle Load: **18.3t]** to its GA Drawing no. DDC16W(IND)-00 upto a maximum speed of **65 kmph when running on its own power as well as in train formation** over **Indian Railway,** by *Zonal Railways*

Ref: (i) RDSO's letter No. TM/HM/11/49/MPT CRCC, Dated 25.01.2021
(ii) CCRS office letter No. Q.12011/07/2020–21–त.वि, Dated 11.08.2021

Chief Commissioner of Railway Safety, Lucknow; while forwarding the case for the sanction of the Railway Board for introduction of operation of **Multipurpose Tamper (MPT) Model DDC-16W, manufactured by M/s CRCC High Tech Equipment Corporation Ltd., China** [Maximum Axle Load: **18.3t**] to its GA Drawing no. DDC16W(IND)-00 upto a maximum speed of **65 kmph when running on its own power as well as in train formation** over **Indian Railway,** by *Zonal Railways*, has recommended certain measures to be taken before introduction of the above rolling stocks, reproduced as under:

1. Unique Transportation Code for the rolling stock should be obtained from Board
2. There are separate graphs for pre-tamping (Measuring Run) and post tamping run in the HMI. A modification in the software should be made to obtain 3 graphs viz. pre-tamping, post tamping and desired values in superimposed condition.
3. During pre-tamping/measuring run data was captured in the form of graph only. There should be a provision to show parameters recorded during measuring run in tabular form.
4. Provisions should be made for recording of various events like braking, motoring, FoP, LoP, water, level, compulsive driving etc.
5. Speedometer is provided in both the cabins but there is no provision to record the instantaneous speed of the machine which can be later downloaded and analysed. Suitable provisions similar to locos must be made to record & download the instantaneous speed.
6. Deadman's handle and/or Vigilance Control Device, Similar to what is available in Locomotives, should be provided. It is much more essential in this rolling stock as it is driven by single crew.
7. Provision for pure mechanical emergency brake lever should be made in both the cabs.
8. Provision of fire survival cable should be made in the communication system and brake system for enhanced fire safety.
9. Mechanical parking brake was provided on the axle 1 & 2 of the machine. There should also be provision for electro-pneumatic parking brakes.

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Issue pls
07/09/21

8/9/21

10. Provisions should be made for logging the actual working/operation timings of machine so that performance of the machine can be compared against its rated output
11. Earth connections of the Rolling stock i.e. Body to Bogie and Bogie to axle shall always be maintained in healthy condition.
12. Before the start of machine, the operator should ensure that the maintenance is started from the 'zero point' indicated by the SSE/P-Way so as to compare the post run data captured by the machine with the actual measurement on the ground.
13. Provision of Volume Control in PA/PIS should be provided in both the cabs.
14. When the machine is being moved either on its own power or hauled in train, it shall be ensured that all the protruding parts are withdrawn and suitably locked, so that during the run, there is no possibility of any infringement with the standard moving dimensions.
15. Suitable signage to warn the crew and workers against the 25KVA OHE should be stenciled on the machine. DOs & DON'Ts for the working with this machine shall be displayed inside the rolling stock
16. Knowledge of the operator regarding working of the machine was checked. Machine operators need to be properly trained as far as working of machine is concerned and operators must be issued machine wise 'Competency Certificate'.
17. Detailed Maintenance Manual having colour photographs should be available with the machine.
18. First Aid Box having prescribed medicines & other items should be mounted at an appropriate place. List of medicines/items should be pasted inside the first aid box
19. Provision should be made for recording & displaying of fuel oil pressure for early tracing of fuel leakage.
20. All the tools were kept in a chaotic manner inside the machine. A standard tool box including tool kit should be provided. List of these tools should be pasted inside the cabin.
21. Speed limit of the machine should be prominently displayed on either side of the cab

RDSO is requested to examine the issues involved and submit comments at the earliest.

DA: as above.

Prem Sagar
06.09.21

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

New Delhi, Dated 06.09.2021

No. 2021/CEDO/SR/22

Copy forwarded for information to :

1. Executive Director (Standards) Motive Power, RDSO, Lucknow
2. Executive Director (Standards) Track-I, RDSO, Lucknow
3. EDTk(M&Mc) Railway Board

953251/2021/CRS SECTION

(114)

भारत सरकार
नागर विमानन मंत्रालय
(रेल संरक्षा आयोग)
GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

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N.E.Rly. 34-140, N.Rly. 23-200
फैक्स/Fax-0522-2233088, 2233087
E-mail : chiefcom@rediffmail.com

पूर्वोत्तर रेलवे, मं.रे.प्र. कार्यालय परिसर
16, अशोक मार्ग, लखनऊ-226001

N.E. Railway, CRM OFFICE CAMPUS
16, Ashok Marg, Lucknow-226 001

संख्या–Q.12011/07/2020–21–त.वि

दिनांक–11.08.2021

सेवा में,

सचिव (सिविल इंजी.)
रेल मंत्रालय (रेलवे बोर्ड)
रेल भवन
नई दिल्ली

[ध्यानार्थ:EDCE(G)]

विषय: Introduction of operation of **Multipurpose Tamper (MPT) Model DDC-16W, manufactured by M/s CRCC High Tech Equipment Corporation Ltd., China** [Maximum Axle Load: **18.3t**] to its GA Drawing no. DDC16W(IND)-00 upto a maximum speed of **65 kmph when running on its own power as well as in train formation** over IR by Zonal Railways

संदर्भ: (i) DG/RDSO's letter No. TM/HM/11/49/MPT CRCC, Dated 25.01.2021
(ii) RDSO's Provisional Speed Certificate (PSC) No. TM/HM/11/49/MPT CRCC, Dated 30.04.2020 alogwith its Amendment no. 1 & 2 Dated 01.12.2020 and 20.01.2021 respectively

Vide reference (i), RDSO has approached this office seeking Railway Board's sanction for introduction of subject rolling stock up to a maximum speed of 65 kmph when running on its own power as well as in train formation over IR by Zonal Railways on the basis of RDSO's Final Speed Certificate mentioned under reference (ii).

Statutory inspection of the subject rolling stock by the CCRS was carried out on 24.06.2021 at Lucknow Junction, Northern Railway. Inspection report of the machine is enclosed as **Annexure-1.**

Case has been examined by this office and is found to be in order. Accordingly, the same is being forwarded to Railway Board for necessary action with the recommendation for the sanction of the Central Government for operation of Multipurpose Tamper (MPT) Model DDC-16W, manufactured by M/s CRCC High Tech Equipment Corporation Ltd., China [Maximum Axle Load: 18.3t] to its GA Drawing no. DDC16W(IND)-00 upto a maximum speed of **65 [SIXTY FIVE] kmph when running on its own power as well as in train formation** over IR by Zonal Railways by Zonal Railways with conditions mentioned in **Annexure-2**

Before introduction of operation of this machine, items mentioned in **Annexure-3** shall be implemented. Further, items mentioned in **Annexure-4** shall be implemented in future production of such machines.

This is issued with the approval of Chief Commissioner of Railway Safety.

11/8/2021
(अहमद नदीम सिद्दीकी)
उप रेल संरक्षा आयुक्त (यांत्रिक)

संलग्नक: यथोक्त

प्रतिलिपि:
महानिदेशक (ट्रैक मशीन),
ट्रैक मशीन निदेशालय, (एनेक्सी–1),
अनुसंधान, अभिकल्प एवं मानक संगठन,
मानक नगर, लखनऊ–226011.

Annexure-2/Page 1 of 1

[of CCRS Office's Letter No. Q.12011/7/2020-21-ग.वि., Dated 11.03.2021 regarding MPT Model DDC-16W]

Conditions to be ensured by the Railway for operation of Multipurpose Tamper (MPT) Model DDC-16W, manufactured by M/s CRCC High Tech Equipment Corporation Ltd., China [Maximum Axle Load: 18.3t] to its GA Drawing no. DDC16W(IND)-00 upto a maximum speed of 65 kmph when running on its own power as well as in train formation over IR by Zonal Railways

1. Observance of all conditions laid down in RDSO's Provisional Speed Certificate (PSC) No. TM/HM/11/49/MPT CRCC, Dated 30.04.2020 alogwith its Amendment no. 1 & 2 Dated 01.12.2020 and 20.01.2021 respectively for operation up to a maximum speed of 65 kmph on its own power as well as in train formation. **Remarks of the Railway against each para of the Speed Certificate shall be submitted to the Commission before start of actual operation of rolling stock.**
2. Observance of all permanent and temporary speed restrictions already in force and /or those that may be imposed from time to time on various accounts.
3. Location of bridges on which speed restrictions have been imposed shall be notified by the Railways and incorporated in the working timetable.
4. In case of locomotive/rolling stock/train (having this machine in its composition) having EBD of more than 1 km and non-provision of second distant signal/4 Aspect Automatic Signalling in the section, action as per A&C no. 9 of SEM Pt-I shall be taken.
5. Before initiating the movement of the machine, Chief Engineer/Track Machine of the concerned Railway shall arrange to certify the track worthiness and safety of the Rolling stock and they shall also ensure proper maintenance of the rolling stock.
6. Brakes of the machine shall be in good working order during the operation.
7. When the machine is being moved either on its own power or hauled in train, it shall be ensured that all the protruding parts are withdrawn and suitably locked, so that during the run, there is no possibility of any infringement occurring to the standard moving dimensions.
8. The machine when running in train formation, a speed restriction of 15 kmph shall be imposed on diamond crossings. No speed restriction on main line route at points and crossings is required. Speed restriction on turnout side of points and crossings shall be 15 kmph. The movement of the machine in case of Track Machine in block section, instructions of the para 708(4) of Indian Railways Track Machine Manual, Septemer-2019 shall be followed.
9. Points and Crossing Tamping Machine shall be maintained as per 'Maintenance manual for 'Multipurpose Tampers' issued by RDSO.
10. As per Railway Board's letter no. 2017/Infra/6/33 Dated 18.09.2019, MD/DFCCIL has been empowered to sanction, over DFC lines, the use of a locomotive or rolling stock already sanctioned by Central Government (Railway Board). In terms of this letter, Multipurpose Tamper (MPT) Model DDC-16W may also run on DFCCIL network after sanction of Railway Board. Under such situation, following issues shall be ensured:
    (a) Present Speed Certificate no. TM/HM/11/49/MPT CRCC, Dated 30.04.2020 alogwith its Amendment no. 1 & 2 Dated 01.12.2020 and 20.01.2021 respectively, issued by RDSO is applicable for IR network only. Hence, to enable running of this rolling stock over DFCCIL routes, an amendment to this Speed Certificate needs to be issued by RDSO duly covering conditions for DFCCIL network also.
    (b) As DFCCIL SOD is different from that of IRSOD, fresh examination for any infringement of DFCCIL SOD should also be done.

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Ansiddiqui

(of CCRS Office's Letter No. Q.12011/7/2020-21-Tech, Dated 11.08.2021 regarding MPT Model DDC-16W)

Measures for improvement of the inspected Machine

Statutory inspection of the Multipurpose Tamper (MPT) Model DDC-16W by the CCRS was carried out on 24.06.2021 at Lucknow Junction, Northern Railway. Para 2 of CCRS Inspection Report suggests about some measures for improvement of the inspected Machine. Following measures shall be taken before introduction of this Machine:

1. Unique Transportation Code for the rolling stock should be obtained from Board
2. There are separate graphs for pre-tamping (Measuring Run) and post tamping run in the HMI. A modification in the software should be made to obtain 3 graphs viz. pre-tamping, post tamping and desired values in superimposed condition.
3. During pre-tamping/measuring run data was captured in the form of graph only. There should be a provision to show parameters recorded during measuring run in tabular form.
4. Provisions should be made for recording of various events like braking, motoring, FoP, LoP, water, level, compulsive driving etc.
5. Speedometer is provided in both the cabins but there is no provision to record the instantaneous speed of the machine which can be later downloaded and analysed. Suitable provisions similar to locos must be made to record & download the instantaneous speed.
6. Deadman's handle and/or Vigilance Control Device, Similar to what is available in Locomotives, should be provided. It is much more essential in this rolling stock as it is driven by single crew.
7. Provision for pure mechanical emergency brake lever should be made in both the cabs.
8. Provision of fire survival cable should be made in the communication system and brake system for enhanced fire safety.
9. Mechanical parking brake was provided on the axle 1 & 2 of the machine. There should also be provision for electro-pneumatic parking brakes.
10. Provisions should be made for logging the actual working/operation timings of machine so that performance of the machine can be compared against its rated output
11. Earth connections of the Rolling stock i.e. Body to Bogie and Bogie to axle shall always be maintained in healthy condition.
12. Before the start of machine, the operator should ensure that the maintenance is started from the 'zero point' indicated by the SSE/P-Way so as to compare the post run data captured by the machine with the actual measurement on the ground.
13. Provision of Volume Control in PA/PIS should be provided in both the cabs.
14. When the machine is being moved either on its own power or hauled in train, it shall be ensured that all the protruding parts are withdrawn and suitably locked, so that during the run, there is no possibility of any infringement with the standard moving dimensions.
15. Suitable signage to warn the crew and workers against the 25KVA OHE should be stenciled on the machine. DOs & DON'Ts for the working with this machine shall be displayed inside the rolling stock
16. Knowledge of the operator regarding working of the machine was checked. Machine operators need to be properly trained as far as working of machine is concerned and operators must be issued machine wise 'Competency Certificate'.
17. Detailed Maintenance Manual having colour photographs should be available with the machine.
18. First Aid Box having prescribed medicines & other items should be mounted at an appropriate place. List of medicines/items should be pasted inside the first aid box
19. Provision should be made for recording & displaying of fuel oil pressure for early tracing of fuel leakage.
20. All the tools were kept in a chaotic manner inside the machine. A standard tool box including tool kit should be provided. List of these tools should be pasted inside the cabin.
21. Speed limit of the machine should be prominently displayed on either side of the cab

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Annexure-4/Page 1 of 1

[of CCRS Office's Letter No. Q.tech1/T/2020-21-RFR, Dated 11.08.2021 regarding MPT Model DDC-16W]

Measures for future improvement of the inspected Machine

Statutory inspection of the Multipurpose Tamper (MPT) Model DDC-16W by the CCRS was carried out on 24.06.2021 at Lucknow Junction, Northern Railway. Para 3 of CCRS Inspection Report suggests about following measures for future improvement of the Machine. Extract of this para are given below for taking necessary action by the Railway for its implementation:

1. At present the stock is running at a speed of 65 kmph on its own power as well as in train formation on the basis of Provisional Speed Certificate. Oscillation trial of the stock should be conducted at the earliest and Final Speed Certificate issued to utilize the full speed potential of the stock
2. Necessary provision should be made to record the conversation between staff present in the cabs for reference during enquiry of any unusual incident/accident
3. 4 No CCTV cameras have been provided to assist the operator carry out the tamping operations. However, there is no provision to record the CCTV footage for reference during investigation/ enquiry of an unusual incident. Necessary modifications should be made to record CCTV footage for at least 30 days.
4. Optical Fiber based Linear Heat Detection (LHD) system should be provided wherever there are bunching of cables. This will help in detecting heating spots before they are converted in to fire.
5. Track Machines must be offered for statutory inspection only after commissioning & calibration/fine tuning
6. Application must accompany track parameters before and after maintenance of a location like turn out, points & crossing etc and its analysis against the codal provisions clearly bringing out the effectiveness of the machine. The parameters recorded by the machine after maintenance must closely match the parameters measured manually
7. Comparison of salient features of machine against the tendered specification along with statement of deviation, if any, must be submitted along with the application

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(118)

भारतसरकार **Government of India**
रेलमंत्रालय **Ministry of Railways**
(रेलवेबोर्ड) **(Railway Board)**

No. 2021/CEDO/SR/17 **New Delhi, Dated 17.08.2021**

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Introduction of operation of Broad Gauge Bogie Flat Steel wagon type **'BFNV'** [Maximum Axle Load: **22.9t**] to RDSO's Drawing no. WD-19024-S-02 Alt.04 up to a maximum permissible speed of **100 kmph in empty and 75 kmph in loaded condition** over **Indian Railway**, by *Zonal Railways* and upto a maximum speed of **100 kmph in both empty and loaded conditions** over DFCCIL system by *DFCCIL*

Ref: (i) RDSO's letter no. MW/PWDA/Jindal/Flat Wagon/CSC, Dated 03.06.2021
(ii) CCRS office letter No. Q.12011/12/2020-21& त.वि , Dated 16.08.2021

Chief Commissioner of Railway Safety, Lucknow; while forwarding the case for the sanction of the Railway Board for introduction of operation of Broad Gauge Bogie Flat Steel wagon type **'BFNV'** [Maximum Axle Load: **22.9t**] to RDSO's Drawing no. WD-19024-S-02 Alt.04 up to a maximum permissible speed of **100 kmph in empty and 75 kmph in loaded condition** over **Indian Railway,** by *Zonal Railways* and upto a maximum speed of **100 kmph in both empty and loaded conditions** over DFCCIL system by *DFCCIL*, has recommended certain measures to be taken before introduction of the above rolling stocks, reproduced as under:

1. RDSO must circulate the detailed instructions to Zonal Railways regarding loading/unloading of steel coils on BFNV wagon along with lashing arrangement to M/s. JRIL's Coil Securing Drawing No. JRIL/CE\CW/2021-01 Alt. Nil before revenue operations of the wagons. Only standard lashing strip as per EN 13246 Standard must be used for lashing purpose. A copy of such instructions may be forwarded to Commission for information.

2. To utilize the full speed potential of the subject rolling stock it should not be mixed up with other variants of steel coil wagons having less speed potential.

3. Loading pattern for 22.9t axle load as per RDSO Drg No. WD-19024-S-02 Alt 4 doesn't have provision of loading of single coil. Drawing may be amended for loading of single coil in the 3rd (central) saddle.

4. As per Speed Certificate of the said wagon Brake Ratio in empty & loaded condition is 30.63% & 66.43% respectively without mentioning the range of Brake Ratio. Amendment of the speed certificate may be issued showing the range of Brake Ratio. All the speed certificates issued in future must also define the range of Brake Ratio.

5. Emergency Braking Distance (EBD) for consist having 1 WDM3A+1LHB AC Oscillograph Car+1BFNV type wagon in empty condition is 639 m whereas for consist having

(119)

1 WDM3A +58 BFNV type wagon+01 Brake Van is 564m which doesn't seem to be correct.EBD calculations for above mentioned consists may be done and submitted to Commission before introduction of the subject rolling stock

RDSO is requested to examine the issues involved and submit comments at the earliest.

DA: as above.

Prem Sagar
17.08.21
(प्रेम सागर गुप्ता)

कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

No. 2021/CEDO/SR/17 **New Delhi, Dated 17.08.2021**

Copy forwarded for information to :

1. Executive Director (Standards) Motive Power, RDSO, Lucknow
2. Executive Director (Standards) Track-I, RDSO, Lucknow
3. EDME(Fr.) Railway Board

ok
Issue Pls
23/08/2021

रेल मंत्रालय
Ministry of Railways
Railway Board
Issue with Correction
हस्ताक्षर
Signature
जारी करने की तारीख
Date of Issue
23/08/21

(120)

भारत सरकार
नागर विमानन मंत्रालय
(रेल संरक्षा आयोग)
GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

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E-mail : chiefcom@rediffmail.com

पूर्वोत्तर रेलवे, मं.रे.प्र. कार्यालय परिसर
16, अशोक मार्ग, लखनऊ-226001

N.E. Railway, DRM OFFICE CAMPUS
16, Ashok Marg, Lucknow-226 001

संख्या–Q.12011/12/2020–21–त.वि

दिनांक–16.08.2021

सेवा में,
सचिव (सिविल इंजी.)
रेल मंत्रालय (रेलवे बोर्ड)
रेल भवन, नईदिल्ली

[ध्यानार्थ:EDCE(G)]

विषय:Introduction of operation of Broad Gauge Bogie Flat Steel wagon type **'BFNV'** [Maximum Axle Load: **22.9t**] to RDSO's Drawing no. WD-19024-S-02 Alt.04 up to a maximum permissible speed of **100 kmph in empty and 75 kmph in loaded conditionover Indian Railway BG routes and 100 kmph in both Empty and Loaded conditionsover DFCCIL routes**

संदर्भ:(i) RDSO's letter No. MW/PWDA/Jindal/Flat Wagon/CSC Dated03.06.2021
(ii) RDSO's Final Speed Certificate (FSC) No. MW/PWDA/Jindal/Flat Wagon/CSC, Dated 02.06.2021
(iii) This office's letter no. Q.12011/12/2020-21-T.W. dated29.06.2021
(iv)RDSO's letter no. MW/PWDA/Jindal/Flat Wagon/CSC, Dated 12.07.2021

Vide reference (i), RDSO has approached this office seeking Railway Board's sanction for introduction of subject rolling stock at maximum speed up to 100 kmph in empty and 75 kmph in loaded condition over IR system for use by Zonal Railways and with maximum speed upto 100 kmph in both empty and loaded conditions over routes of Eastern and Western Dedicated Freight Corridors of DFCCIL on the basis of RDSO's Final Speed Certificate mentioned under reference (ii). Vide reference (iii) [copy enclosed], RDSO was asked to furnish certain clarifications on the subject case. Clarifications on the issues were given by RDSO to this office vide reference (iv) [copy enclosed].

Statutory inspection of the subject rolling stock by the CCRS was carried out on 05.08.2021 at Safdarjung Railway Station (DSJ)/ Northern Railway, New Delhi. Inspection report of the wagon is enclosed as **Annexure-1**

Case has been examined by this office and is found to be in order. Based on the examination of documents/clarifications submitted by RDSO and inspection of the subject rolling stock, the same is being forwarded to Railway Board with for the sanction of the Central Government for operation of Broad Gauge Bogie Flat Steel wagon type **'BFNV'** [Maximum Axle Load: **22.9t**] to RDSO's Drawing no. WD-19024-S-02 Alt.04 up to a maximum permissible speed of **100 [ONE HUNDRED] kmph in empty and 75 [SEVENTY FIVE] kmph in loaded conditionover Indian Railway BG routes and 100 [ONE HUNDRED] kmph in both Empty and Loaded conditionsover DFCCIL routeswith** conditionsmentioned in **Annexure-2.**

Observations of CCRS as mentioned in his Inspection Report about measures to be taken before introduction of this wagon, as enclosed in **Annexure-3**,should be complied before its commercial introduction. Further, item mentioned under the heading 'Measures for future improvement of BFNV wagons' in **Annexure-3** shall be implemented in future production of such wagons.

This is issued with the approval of Chief Commissioner of Railway Safety.

16/8/2021
(अहमद नदीम सिद्दीकी)
उप रेल संरक्षा आयुक्त (यांत्रिक)

संलग्नक:यथोक्त

प्रतिलिपि:
महानिदेशक (माल डिब्बा), माल डिब्बा निदेशालय (एनेक्सी–1),
अनुसंधान, अभिकल्प एवं मानक संगठन,
मानक नगर, लखनऊ–226011

(121)

[of CCRS Office's Letter No. Q.12011/12/2020–21–सा.वि., Dated 16.08.2021 regarding BFNV]

Conditions to be ensured by the Railway for operation of Broad Gauge Bogie Flat Steel wagon type 'BFNV' [Maximum Axle Load: 22.9t] to RDSO's Drawing no. WD-19024-S-02 Alt.04 up to a maximum permissible speed of 100 kmph in empty and 75 kmph in loaded conditionover Indian Railway BG routes and 100 kmph in both Empty and Loaded conditionsover DFCCIL routes

1. Observance of all conditions laid down in RDSO's Final Speed Certificate No. MW/PWDA/Jindal/Flat Wagon/CSC, Dated 02.06.2021, Remarks of the Railway/DFCCIL against each para of the Speed Certificate shall be submitted to the Commission before the start of actual operation of rolling stock.
2. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.
3. In terms of Railway Board letter No. 2020/CE-II/TS/22.82 dt 20.08.2020, General Manager of Zonal Railway shall identify the route for operation of (CC+8+2)t/ (CC+6+2)t axle load wagon at 75kmph. List of identified routes shall be submitted to the Commission before the start of actual operation of rolling stock. Further, compliance of all the stipulations mentioned in this letter shall be ensured by the Railways.
4. Periodic rail grinding at stipulated frequency should be carried out on routes by ensuring the availability of traffic blocks.
5. Railway should ensure installation of way side lubricators as per provision of IR P.Way manual in a time bound manner.
6. Railway shall follow the directives of RDSO for operation of (CC+8t+2t) axle load 22.82t communicated vide RDSO's letter no. CBS/Golden/Q/Strength dated 21/27.07.2009 and its Amendment dated 25/09/2009. Railway shall submit remarks against each para of this letter to the Commission before the start of actual operation of the wagon.
7. For regular operation in loaded condition of BFNV wagon over IR routes, Railway shall ensure compliance of the speed restriction mentioned in Para 3.2.1.3 (c) & (d) of RDSO's Final Speed Certificate no. MW/PWDA/Jindal/Flat Wagon/CSC, Dated 02.06.2021.
8. Location of bridges on which speed restrictions have been imposed shall be notified by the Railways/DFCCIL and incorporated in the working timetable so that all operating staff is aware of the instructions.
9. Adequate number of WILD and 'Weigh Bridges' shall be progressively installed and their working closely monitored. 100% weighment of loaded wagons shall be ensured at the loading points to avoid running of overloaded wagons on track.
10. In case of train (with this wagon in its composition) having EBD of more than 1 km and non-provision of second distant signal/4 aspect automatic signalling in the section, action as per A&C no.9 of SEM Pt-1 shall be taken.
11. No overdue in track/rolling stock maintenance shall be permitted.
12. Separate maintenance regime to be legislated for higher axle load route on IR.
13. Detailed guidelines for operations of higher axle load train over IR shall be issued covering all issues related to Track, Bridges, Signal, OHE, Rolling Stock & Operating System etc.
14. Right powering of loaded trains running with 22.9t axle loaded wagons shall be ensured.
15. Over IR routes, Lateral and Vertical accelerations at the maximum sanctioned speed in Loaded condition in first and last wagon shall be measured & recorded by the Railways for a period of at least one week duration and submit the report to the Commission for the proposed wagon within 15 days of running of wagon.
16. Special attention and monitoring shall be done for the tracks in the section on IR network. First passenger train, following Goods train consisting of these wagons, shall be accompanied by the officials from Engineering or Operating Department for close monitoring.
17. Only wagons with twin-pipe brake system shall be permitted to run at 75 kmph. Air brake system of wagons with twin-pipe shall be in working order for operation at 75 kmph.

18. Brakes of the locomotive and the rake of the BFNV wagons shall be in good working order during the operation.
19. Before initiating the operation, PCME of the concerned Railway/GGM (Mechanical) of the DFCCIL shall arrange to certify the track worthiness and ensure safety of rolling stock. Proper maintenance of the rolling stock shall also be ensured.
20. The maximum speed on curves sharper than 875m radius shall be 60kmph in loaded condition.
21. Coupler forces & EBD trials as mentioned in Para 2 & 3 of Appedix-2 of Revised Policy Circular-6 dt. 31.10.1018 shall be done and report of the same should be furnished to Commission.
22. A review shall be made regarding conducting of Oscillation Trials on DFC track after a suitable period when a run down and due maintenance track becomes available on DFC network.
23. Railway should adopt following measures to improve the reliability of wagons during operation:
    a. Elastomeric (EM) pads must be made MUST CHANGE items during Routine Overhaul (ROH).
    b. Brake Blocks must be made MUST CHANGE items during ROH.
    c. During intensive examination, minimum thickness of brake block should be maintained 25 mm instead of presently prescribed 20 mm to reduce the detachment cases of wagons on account of worn-out brake-head cases.

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[of CCRS Office's Letter No. Q.12011/12/2020–21–वि., Dated 16.08.2021 regarding BFNV*]*

Statutory inspection of the Bogie Flat Steel wagon type Freight Rolling Stock BFNV by the CCRS was carried out on 05.08.2021 at Safdarjung Railway Station (DSJ)/ Northern Railway, New Delhi. Paras 3& 4 of CCRS Inspection Report suggest about measures for improvement of the inspected Wagon and for future improvement respectively. Following measures shall be taken:

Measures for improvement of the inspected Wagon

1. RDSO must circulate the detailed instructions to Zonal Railways regarding loading/unloading of steel coils on BFNV wagon along with lashing arrangement to M/s. JRIL's Coil Securing Drawing No. JRIL/CE\CW/2021-01 Alt. Nil before revenue operations of the wagons. Only standard lashing strip as per EN 13246 Standard must be used for lashing purpose. A copy of such instructions may be forwarded to Commission for information.
2. To utilize the full speed potential of the subject rolling stock it should not be mixed up with other variants of steel coil wagons having less speed potential.
3. Loading pattern for 22.9t axle load as per RDSO Drg No. WD-19024-S-02 Alt 4 doesn't have provision of loading of single coil. Drawing may be amended for loading of single coil in the 3rd (central) saddle.
4. As per Speed Certificate of the said wagon Brake Ratio in empty & loaded condition is 30.63% & 66.43% respectively without mentioning the range of Brake Ratio. Amendment of the speed certificate may be issued showing the range of Brake Ratio. All the speed certificates issued in future must also define the range of Brake Ratio.
5. Emergency Braking Distance(EBD) for consist having 1 WDM3A+1LHB AC Oscillograph Car+1BFNV type wagon in empty condition is 639m whereas for consist having 1 WDM3A +58 BFNV type wagon+01 Brake Van is 564m which doesn't seem to be correct.EBD calculations for above mentioned consists may be done and submitted to Commission before introduction of the subject rolling stock.

Measures for future improvement of BFNV wagons

1. Efforts should be should be made to restrict the number of variants of steel coil wagons.

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e-Office – 3361181 (uploaded)

(124)

भारत सरकार Government of India
रेलमंत्रालय Ministry of Railways
(रेलवेबोर्ड) (Railway Board)

2021/CEDO/SD/RS/05 **New Delhi, dated 05.08.2021**

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub : Condonation of infringement for movement of Non-ISO 3658 mm (12') high containers in single stack on BG low platform bogie container flat wagon type **BLC** (Car A & B), **BLCM** (Car A & B) and **BLCS** (Car A & B) wagons for operation over Indian Railways

Ref:(i) RDSO letters no. CT/CONTR/BG/MG, dated 19.05.2021 for **BLCS** and letter of even number dated 19.05.2021 for **BLC/BLCM**
(ii) RDSO letters no. MW/CONTR/12FT, dated 16.07.2021
(iii) CCRS letter no. Q-14011/08/2020-21-t-w, dated 20.07.2021 for **BLCS** and letter of even number dated 20.07.2021 for **BLC/BLCM**

With reference to your above applications {ref. (i)}, sent through the Chief Commissioner of Railway Safety, Lucknow; the sanction of Ministry of Railways, Railway Board is hereby communicated for condonation of infringement w.r.t. Chapter-IV(A), Schedule-I of IRSOD (BG) Revised, 2004 for movement of Non-ISO 3658 mm (12') high containers in single stack (2438mm wide and 4655mm high) to RDSO *Drawing No. WD-20022-S-02* for A-Car (**BLCS**) & *Drawing No. WD-20022-S-03* for B-Car (**BLCS**) and RDSO *Drawing No. WD-20020-S-02* for A-Car (**BLC/BLCM**) & Drawing No. *WD-20020-S-03* for B-Car (**BLC/BLCM**), as shown in details enclosed with above mentioned applications and reproduced as under :

(A) **Clause 2(ii)** -Minimum diameter on the tread of new carriage or wagon wheel, measured at 63.5 mm from wheel gauge face, by 74 mm (840mm instead of 914mm).

(B) **Clause 11** -Minimum height above rail level for floor of fully loaded goods vehicle, by 211 mm in loaded & 136mm in empty condition (934mm/1009mm in loaded/empty condition instead of 1145mm).

(C) **Clause 14** -Minimum height above rail level for centers of buffers & CBC couplers when fully loaded, by 260 mm in loaded & 185mm in empty condition (770mm/845mm in loaded/empty condition instead of 1030mm).

(D) **Clause 29** – Maximum height above rail level for a width of 1015mm on either side of the centre of unloaded vehicles by 390 mm (4655 mm instead of 4265mm).

09/08/21

O/C Prem Sagar 05.08.21

The above condonation is subject to following stipulations:

i. Locations with restricted height overhead structures shall be identified by the Zonal Railway. Zonal Railway MUST ensure the removal of any infringement before starting operation of Non-ISO 3658 mm (12') high containers in single stack on **BLCS/BLC/BLCM** (Car A & B) wagons in electrified territory.

ii. Various clearances pertaining to fixed structures, OHE wires and OHE structures, as recommended by RDSO in paras 1, 2 & 3 of Note mentioned in Annexure-I of RDSO's application for **BLCS,** no. CT/CONTR/BG/MG, dated 19.05.2021, Annexure-I duly *revised by RDSO's letter no. MW/CONTR/12FT, dated 16.07.2021*, shall be adhered to before introducing operation of **BLCS**.

iii. Various clearances pertaining to fixed structures, OHE wires and OHE structures, as recommended by RDSO in paras 1, 2 & 3 of Note mentioned in Annexure-I of RDSO's application for **BLC/BLCM,** no. CT/CONTR/BG/MG, dated 19.05.2021, Annexure-I duly *revised by RDSO's letter no. MW/CONTR/12FT, dated 16.07.2021*, shall be adhered to before introducing operation of **BLC/BLCM**.

iv. For **BLCS (Car A & B)** maximum length of wheel flat would be limited to 50mm.

v. All the necessary conditions related to infringements and various clearances to be ensured, SHALL form part of the RDSO Speed Certificate whenever issued for the operation of. Non-ISO 3658 mm (12') high containers in single stack on **BLCS/BLC/BLCM** (Car A & B) wagons.

vi. For movement of subject rolling stock in any section of the Indian Railway, *'Policy instruction for running Double Stack Dwarf Containers (DSDC) over Zonal Railways'*, issued vide letter no. *2019/CEDO/SR/07/0, dated 18.04.2019,* shall be applicable for above rolling stock also. However, in case Railway Board sanction for running of DSDC on BLCS/BLC/BLCM (overall dimension 2600mm x 4877mm) is already available for a section, fresh approval of Railway Board for running above respective rolling stock on that section would not be required.

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Compound of DRM/NER, Ashok Marg, Lucknow-1 w.r.t. his endorsement No. Q-14011/08/2020-21-t-w, dated 20.07.2021 for **BLCS** and letter of even number dated 20.07.2021 for **BLC/BLCM**
2. Commissioner of Railway Safety, all Circles
3. ED Standards (Track-1), RDSO, Manak Nagar,Lucknow
4. EDME(Freight)/Railway Board, New Delhi

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

(126)

भारतसरकार Government of India
रेलमंत्रालय Ministry of Railways
(रेलवेबोर्ड) (Railway Board)

No. 2021/CEDO/SD/RS/01 New Delhi, dated 09.04.2021

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub:- Condonation of infringements w.r.t. IRSOD (BG) Revised, 2004 by **Ballast Cleaning Machine, Model RM 80-92U supplied by M/s Plasser India** as per RDSO Drawing No. 64.00.0529C V2, with a maximum axle load 20t, for operation on Indian Railways

Ref:- (i) RDSO's letter No. CT/TMM/GENERAL, dated 12.01.2021
(ii) CCRS's letter No. Q.14011/04/2020-21-T.W, dated 08.03.2021

With reference to your above application, dated 12.01.2021{ref. (i)}, sent through the Chief Commissioner of Railway Safety, Lucknow; the sanction of Ministry of Railways, Railway Board is hereby communicated for condonation of infringement w.r.t. Chapter-IV(A), Schedule-I of IRSOD (BG) Revised, 2004 by Ballast Cleaning Machine, Model RM 80-92U supplied by M/s Plasser India as per drawing No. 64.00.0529C V2, as shown in details enclosed with above mentioned application, details of infringements as under :

(i) Clause 2(ii) – Minimum diameter on the tread of new carriage or wagon wheel, measured at 63.5 mm from wheel gauge face by 14 mm (i.e. 900 mm instead of 914 mm)

(ii) Clause 17 – Maximum distance apart of bogie centres for bogie vehicles by 7300 mm (i.e. 22200 mm instead of 14900 mm)

(iii)Clause 19(b) – Maximum length of body or roof for bogie vehicles by 6960 mm (i.e. 28300 mm instead of 21340 mm)

(iv) Clause 20(b) – Maximum length over side buffers for bogie vehicles by 7240 mm (i.e. 29540 mm instead of 22300 mm)

(v) Clause 21 – Maximum distance apart between any two adjacent axles by 8025 mm (i.e. 20370 mm instead of 12345 mm)

Further, above sanction of condonation is subject to the following conditions:

"Instructions related to the movement of the machine on Curves, Points and Crossing/Turnouts & Diamond Crossing should be incorporated in the Speed Certificate for its operation, whenever being issued by RDSO. In addition, issue related to movement of the machine in Train formation in case of emergency

09/04

should also be considered & addressed and accordingly instructions for movement in such cases should be clearly mentioned in the Speed Certificate."

o/c

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

No. 2021/CEDO/SD/RS/01

New Delhi, dated 09.04.2021

Copy forwarded for information to:

1. The Chief Commissioner of Railway Safety, Compound of DRM/NER, Ashok Marg, Lucknow-1 w.r.t. his endorsement No. Q.14011/04/2020-21-T.W, dated 08.03.2021
2. Commissioner of Railway Safety, all Circles
3. ED Standards (Track-1), RDSO, Manak Nagar,Lucknow
4. EDTk(M&MC)/Railway Board, New Delhi

o/c

(प्रेम सागर गुप्ता)
कार्यपालक निदेशक सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
[Rly No. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

Issue plz
12/04/2021

Railway Board

3347673

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड) (Railway Board)

128

No. 2021/CEDO/SR/11(MEMU-BEML)(I) New Delhi, dated 31.03.2021

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

The General Manager,
All Indian Railways

Sub:- Introduction of 8/12-car formation MEMU stock fitted with on-board 3-phase IGBT based propulsion system and pneumatic suspension in secondary stage manufactured by M/s BEML to Drawing No. GR-3826(MEMU/DMC/CS/BEHL) & GR-3999(MEMU/TC/CS/BEHL), up to **maximum speed of 110 kmph**, over Indian Railways, by Zonal Railways on track maintained as per para 522 of Indian Railways Permanent Way Manual, June-2020

Ref:- (i) RDSO's letter No. MC/MEMU/3-phase/BEML, Dated 21.01.2021
(ii) CCRS's letter No. Q.12011/16/2020-21-त.वि., दिनांक – 16.03.2021

With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of 8/12-car formation MEMU stock fitted with on-board 3-phase IGBT based propulsion system and pneumatic suspension in secondary stage manufactured by M/s BEML to Drg No. GR-3826(MEMU/DMC/CS/BEHL) & GR-3999(MEMU/TC/CS/BEHL), up to a maximum speed of 110 kmph over Indian Railways, by Zonal Railways on track maintained as per Para 522 of Indian Railways Permanent Way Manual, June-2020, with the following stipulations :

i. Observance of all conditions laid down in RDSO's Final Speed Certificate No. MC/MEMU/3-phase/BEML, Dated 20.01.2021. Remarks of the Railway against each para of this Speed Certificate shall be submitted to the Commission before the start of actual operation of rolling stock.
ii. As per para 6.1.2 of Revised Policy Circular-6 Dated 31.10.2018, trains will be introduced in the sections at the speeds as per provision of General Rules 1976–Rule 4.08 1(a).
iii. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.
iv. Maximum speed of the 8-car formation MEMU shall be restricted as per speeds proposed therein or the maximum permissible speed of the section, whichever is less.
v. While running through a station, speed of the train shall be restricted to the maximum permissible speed as per standard of interlocking provided at the station.
vi. Location of bridges on which speed restrictions have been imposed shall be notified by the Railways and incorporated in the working timetable.
vii. Railway shall comply all the stipulations mentioned in EIG (Northern Railway) Sanction no. 232-Elect/EMU/3/7-BEML, Dated 25.02.2021 for 12-Car formation

Issue ple
01/04/2021

रेल मंत्रालय
Ministry of Railways
रेलवे बोर्ड/Railway Board
Endorsement with Enclosure
Dated
जारी की तिथि
Date of Issue

O/C Prem Sagar
31/03/21

MEMU rake. All electrical equipment shall be maintained in good condition and necessary safety precautions shall be taken by Railways.

viii. Before starting the operation, the PCME of the concerned Railway shall certify the track worthiness and safety of the rolling stock and shall also ensure proper maintenance of the rolling stock.

ix. Brakes of the rolling stock shall be in good working order during the operation.

x. In case air spring gets deflated, the speed shall be limited to 60 kmph. This has to be manually implemented by the driver.

xi. CCRS while forwarding the case to Railway Board, has also stipulated a numbers of measures to be taken before introduction of the above rolling stocks, enclosed as Annexure-2 to CCRS's letter No. Q.12011/16/2020&21&t-w, dated 16.03.2021 (copy enclosed). The same shall also be complied with before introduction of the above rolling stock.

DA: as above

Prem Sagar
31/03/21
o/c (प्रेम सागर गुप्ता)
कार्यकारी निदेशक सिविल इंजी. (जी) रेलवे बोर्ड
[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement no. Q.12011/16/2020-21-त.वि., दिनांक – 16.03.2021
2. Executive Director (Standards) Motive Power, RDSO, Lucknow
3. Executive Director (Standards) Track-I, RDSO, Lucknow
4. Executive Directors; ME(Chg.), Railway Board
5. Executive Directors; EE(G), Railway Board

o/c Prem Sagar
31/03/21
(प्रेम सागर गुप्ता)
कृते, सचिव रेलवे बोर्ड

Annexure-2/Page 1 of 1

[of CCRS Office's Letter No. Q.12011/16/2020-21-सं.नि., Dated 16.03.2021]

Measures to be taken before introduction of 8/12-car formation MEMU rolling stock having 3-phase on-board IGBT based propulsion system

Statutory inspection of the rolling stock by the CCRS was carried out on 13.03.2021 at Delhi Safdarjung Station, Northern Railway. Para 2 of CCRS Inspection Report suggests about following measures for improvement of inspected rolling stock. Extract of this para is given below for taking necessary action for its implementation:

a. Necessary changes in the TCMS (Train Control Management System) software should be made for not allowing the traction (provision of traction cut-off) with indication to motorman in case more than 50% of the bogies are in isolated condition.

b. Provision of smoke detectors should be made inside HT compartment & electrical cubicles. In case of smoke, suitable audio/visual alarm should appear on the driver's desk for early detection of smoke.

c. Suitable Boards/ stickers showing sequence of operation before entering into HT room should be displayed on the door of the HT compartment

d. Stainless steel pipes of BP, MR, air bellow, auxiliary reservoir, brake cylinder, compressor etc. should be color coded for easy identification by maintenance staff.

e. Ventilator type grill cover provided over junction box should be closed to protect dust ingress as well as preventing passengers from dumping the garbage

f. Metallic grommet should be provided in alarm chains.

g. A large one piece end wall panel has been provided in the DMC. As this will occupy a lot of passenger space when opened, it should, therefore, be replaced by two or more small panels.

h. All information boards/stickers in passenger area are only in English/Hindi. Tri-lingual Boards/stickers in Regional language, Hindi, English should be provided wherever required.

i. Passenger Information Display Boards inside the DMC & TC may injure the passenger standing near it. They should be suitably modified so as not to cause any injury to the passenger.

j. Florescent/retro reflective strips should be provided in the aisle area of TC/DMC to guide the passenger during evacuation in case of black out due to power failure caused by accident/derailment.

k. There were sharp edges in metallic moulding of seats. The same should be removed.

l. Provision should be made for 'Divyangjan' and Senior Citizens as per prescribed norms. Trilingual (Local language, Hindi, English) stickers indicating the same should be pasted at appropriate locations.

m. Provision of Volume Control in PA/PIS should be provided from both the cabs.

n. In case of ACP alarm bell in cab rings continuously. Provision should be made to manually reset the passenger alarm bell by the driver.

o. Pre- recorded Passenger safety announcement in three languages (Regional, Hindi & English) should be made during run to sensitize passengers about personal safety norms to be observed during travel

p. Training must be imparted to crew on following aspects
   - (i) To uncouple the semi-permanent Schaku coupler in about 15 min in case of emergency. Necessary tools required for this operation must be made a part of driver/guard tool kit.
   - (ii) Sequence of operations to be performed before entering into HT room
   - (iii) Action to be taken in case of Passenger Alarm chain pulling as per extant norms keeping in view the emergencies like fire etc. in which immediate action is required for passenger safety.

q. LED display board is presently available on the top side of the MEMU rake just above cab front view glass. In case of defective LED unit or otherwise, it will create inconvenience to passengers. To avoid this situation, provision of manual display system also should be made available in the MEMU DMC.

r. Detailed Maintenance Manual having coloured photograph should be made available to maintenance staff

***

Prem Sagar
31.03.21

3347673

(131)

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड) (Railway Board)

No. 2021/CEDO/SR/11(MEMU-BEML)(II) New Delhi, dated 31.03.2021

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub:- Introduction of 8/12-car formation MEMU stock fitted with on-board 3-phase IGBT based propulsion system and pneumatic suspension in secondary stage manufactured by M/s BEML to Drawing No. GR-3826(MEMU/DMC/CS/BEHL) & GR-3999(MEMU/TC/CS/BEHL), up to maximum speed of 110 kmph, over Indian Railways, by Zonal Railways on track maintained as per para 522 of Indian Railways Permanent Way Manual, June-2020

Ref:- (i) Railway Bd's letter 2021/CEDO/SR/11(MEMU-BEML)(I), dated 31.03.2021
(ii) RDSO's letter No. MC/MEMU/3-phase/BEML, Dated 21.01.2021
(iii) CCRS's letter No. Q.12011/16/2020-21-त.वि., दिनांक – 16.03.2021.

With reference to your above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board has been communicated for introduction of 8/12-car formation MEMU stock fitted with on-board 3-phase IGBT based propulsion system and pneumatic suspension in secondary stage manufactured by M/s BEML to Drg No. GR-3826(MEMU/DMC/CS/BEHL) & GR-3999(MEMU/TC/CS/BEHL), up to a maximum speed of 110 kmph, over Indian Railways, by Zonal railway vide Railway Board's letter under reference (i) above. CCRS, while recommending for introduction of this Rolling Stock to Railway Board has suggested ***following measures to be taken for future improvement of the above rolling stocks*** :

(i) Presently, these coaches are made from Corten Steel (IRSM-41). Corrosion resistance structural steel. In future, they may be replaced by Stainless Steel coaches (IRSM-44)

(ii) On 13.03.2021 a fire broke out in C-5 coach of Dehradun Shatabdi Exp (Train no. 02017) near Kansrao in Uttarakhand. Due to provision of aspiration type smoke & fire detection system called VESDA (Very Early Smoke Detector Apparatus) system in the coach, smoke was detected very early and emergency brakes were applied. All passengers were safely evacuated and no injuries/casualties were reported. In view of the above, a suitable Fire & Smoke Detection System, as per EN 45545-1-2013, should be provided in the passenger areas of the rakes to avoid any loss of life in case of fire incident. In light of this unusual, passenger alarm chain pulling system and action to be taken by crew (in case emergency brakes are not automatically applied) should be reviewed.

(iii) Feasibility of completely sealed vestibule area like that of Train-18 may be explored in future designs

(iv) Necessary provision should be made to record the conversation between motorman & guard and announcement done by motorman through PA/PIS for reference during enquiry of any unusual incident/accident

o/c Prem Sagar
31/03/21

(v) CCTV cameras should be installed to capture live feed from inside as well as outside the coach

(vi) Furnishing of coaches should be similar to presently operational LHB coaches

(vii) Modular stainless steel toilets like those in LHB coaches should be provided

(viii) Mobile charging point should be provided as per prescribed provisions

(ix) Ergonomically designed driver's cabs having standard layout across all types of MEMUs may be provided in the rakes produced in future for driver's comfort.

(x) It was informed that rollback protection does not work in case holding brakes are disabled. Ideally, rollback protection should also act as backup for holding brakes failure. Therefore, rollback protection should be independent of holding brakes.

(xi) Chairs provided in Driver's Cab need to be redesigned to maximize the space available inside the cab. Feasibility of providing the foldable chairs may be explored

RDSO is requested to examine above and take necessary action for ***future improvement of the above rolling stocks*** . The compliance of the same should also be submitted to CCRS.

Prem Sagar
31/03/21
o/c (प्रेम सागर गुप्ता)
कार्यकारी निदेशक सिविल इंजी. (जी) /रेलवे बोर्ड
[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement no. Q:12011/16/2020-21-त.वि., दिनांक – 16.03.2021
2. Executive Director (Standards) Motive Power, RDSO, Lucknow
3. Executive Director (Standards) Track-I, RDSO, Lucknow
4. Executive Directors; ME(Chg.), Railway Board
5. Executive Directors; EE(G), Railway Board

o/c Prem Sagar
31/03/21
(प्रेम सागर गुप्ता)
कृते, सचिव रेलवे बोर्ड

Issue plc
01/04/2021

रेल मंत्रालय
Ministry of Railways
Railway Board
With Enclosure
Signature
Date of Issue

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड) (Railway Board)

(133)

No. 2021/CEDO/SR/12(NMGH) New Delhi, Dated 30.03.2021

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Introduction of **Automobile Carrier Coach (converted from Non-AC conventional ICF coach) [Unique Transportation Code: NMGH]** to RDSO's Drawing no. RDSO/CG/DRG/20001 Alt.01 up to a **maximum speed of 110 kmph** over Indian Railways, by Zonal Railways on track maintained as per Para 522 of Indian Railways Permanent Way Manual, June-2020

Ref : (i) CCRS letter No. Q.12011/21/2020–21–त.वि, Dated 25.03.2021
(ii) RDSO's letter No. MC/MV/Maruti, Dated 08.03.2021

Chief Commissioner of Railway Safety, Lucknow; while forwarding the case for the sanction of the Railway Board for introduction of **Automobile Carrier Coach (converted from Non-AC conventional ICF coach) [Unique Transportation Code: NMGH]** to RDSO's Drawing no. RDSO/CG/DRG/20001 Alt.01 up to a **maximum speed of 110 kmph** over Indian Railways, by Zonal Railways, has recommended certain measures to be taken before introduction of the above rolling stocks, reproduced as under:

i. Light Pipe arrangement has been provided in the rolling stock for illumination. Some more light pipes may be provided in future production to further improve the illumination.
ii. There is some gap between the doors and end panel wall. This should be eliminated/ minimized as water may enter inside the coach during heavy rains.
iii. It was informed that some electrical wires are still left inside the panel near the cant rail They may be removed to eliminate any chance of fire hazards
iv. Maximum permissible speed, tare weight, pay load & return date of the rolling stock should be stenciled at appropriate location on body end wall.
v. POH and IOH of the rolling stock shall be done as per maintenance pattern of ICF coaches.
vi. Railway should do proper corrosion study of headstock and underframe before taking up coach for conversion.

O/C ISSUE PLS 30.3.21

RDSO is requested to examine the issues involved and submit comments at the earliest.

DA: as above.

31/3/21

Prem Sagar 30/03/21

(प्रेम सागर गुप्ता)
कार्यकारी निदेशक / सिविल इंजीनियरिंग(जी) / रेलवे बोर्ड
[Rly no. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

Copy forwarded for information to:
1. Executive Director (Standards) Carriage, RDSO, Lucknow
2. Executive Director ME(Chg), Railway Board

8672/2021/CEDO SECTION

भारत सरकार
नागर विमानन मंत्रालय
(रेल संरक्षा आयोग)
GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

फोन / Ph.: 0522-2233087, 2233108 (P&T)
N.E.Rly. 31-140, N.Rly. 23-290
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E-mail : chiefcom@rediffmail.com

पूर्वोत्तर रेलवे, मं.रे.प्र. कार्यालय परिसर
16, अशोक मार्ग, लखनऊ-226001

N.E. Railway, DRM OFFICE CAMPUS
16, Ashok Marg, Lucknow-226 001

संख्या–Q.12011/21/2020–21–त.वि

दिनांक–25.03.2021

सेवा में,

सचिव (सिविल इंजी.)
रेल मंत्रालय (रेलवे बोर्ड)
रेल भवन
नई दिल्ली

[ध्यानार्थ:EDCE(G)]

विषय: Introduction of **Automobile Carrier Coach (converted from Non-AC conventional ICF coach) [Unique Transportation Code: NMGH]** to RDSO's Drawing no. RDSO/CG/DRG/20001 Alt.01 up to a **maximum speed of 110 kmph** over Indian Railways on track maintained as per provisions of Indian Railways Permanent Way Manual, June-2020, containing track geometry standards under Para 522

संदर्भ: (i) DG/RDSO's letter No. MC/MV/Maruti, Dated 08.03.2021
(ii) RDSO's Final Speed Certificate (FSC) no. MC/MV/Maruti, Dated 06.03.2021

Vide reference (i), RDSO has approached this office seeking Railway Board's sanction for introduction of subject rolling stock up to a maximum speed of 110 kmph over Indian Railways on track maintained as per provisions of Indian Railways Permanent Way Manual, June-2020 containing track geometry standards under Para 522 for use by Railways on the basis of RDSO's Final Speed Certificate mentioned under reference (ii).

Case has been examined by this office and is found to be in order. Accordingly, the same is being forwarded to Railway Board for necessary action with the recommendation for the sanction of the Central Government for operation of Automobile Carrier Coach (converted from Non-AC conventional ICF coach) [Unique Transportation Code: NMGH] to RDSO's Drawing no. RDSO/CG/DRG/20001 Alt.01, up to a maximum speed of **110 [ONE HUNDRED TEN]** kmph over Indian Railways on track maintained as per provisions of Indian Railways Permanent Way Manual, June-2020, containing track geometry standards under Para 522 with conditions mentioned in **Annexure-1**

Observations from CCRS Inspection Report about 'Measures to be taken before introduction of ICF type Automobile Carrier [Unique Transportation Code: NMGH]' are enclosed as **Annexure-2.** The compliance of the same should also be submitted to the Commission.

This is issued with the approval of CCRS.

ANSiddiqui
25/3/2021
(अहमद नदीम सिद्दीकी)
उप रेल संरक्षा आयुक्त (यांत्रिक)

संलग्नक: यथोक्त

प्रतिलिपि:
महानिदेशक (सवारी डिब्बा)
सवारी डिब्बा निदेशालय (एनेक्सी–1),
अनुसंधान, अभिकल्प एवं मानक संगठन,
मानक नगर, लखनऊ–226011

Annexure-1/Page 1 of 1

[of CCRS Office's Letter No. Q.12011/21/2020-21-ग.वि., Dated 25.03.2021]

Conditions to be ensured by the Railway for operation of ICF type Automobile Carrier [Unique Transportation Code: NMGH] to RDSO's Drawing no. RDSO/CG/DRG/20001 Alt.01 up to a maximum speed of 110 kmph over Indian Railways on track maintained as per provisions of Indian Railways Permanent Way Manual, June-2020, containing track geometry standards under Para 522

1. Observance of all conditions laid down in RDSO's Final Speed Certificate No. MC/MV/Maruti, Dated 06.03.2021. **Remarks of the Railway against each Para of this Speed Certificate shall be submitted to the Commission before the start of actual operation of rolling stock.**
2. As per para 6.1.2 of Revised Policy Circular-6 Dated 31.10.2018, trains will be introduced in the sections at the speeds as per provision of General Rules 1976–Rule 4.08 1(a).
3. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.
4. Maximum speed of the NMGH coach shall be restricted to speed proposed therein or the maximum permissible speed of the section, whichever is less.
5. While running through a station, speed of the train shall be restricted to the maximum permissible speed as per standard of interlocking provided at the station.
6. Location of bridges on which speed restrictions have been imposed shall be notified by the Railways and incorporated in the working timetable.
7. Before starting the operation, the PCME of the concerned Railway shall certify the track worthiness and safety of the rolling stock and shall also ensure proper maintenance of the rolling stock.
8. Brakes of the rolling stock shall be in good working order during the operation.

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Annexure-2/Page 1 of 1

[of CCRS Office's Letter No. Q.12011/21/2020-21-तं.वि., Dated 25.03.2021]

Measures to be taken before introduction of ICF type Automobile Carrier [Unique Transportation Code: NMGH]

Statutory inspection of the rolling stock by the CCRS was carried out on 21.03.2021 at Delhi Safdarjung Station, Northern Railway. Para 2 of CCRS Inspection Report which suggests the measures for improvement of subject rolling stock is reproduced below for taking necessary action for their implementation:

1. Light Pipe arrangement has been provided in the rolling stock for illumination. Some more light pipes may be provided in future production to further improve the illumination.
2. There is some gap between the doors and end panel wall. This should be eliminated/ minimized as water may enter inside the coach during heavy rains.
3. It was informed that some electrical wires are still left inside the panel near the cant rail They may be removed to eliminate any chance of fire hazards
4. Maximum permissible speed, tare weight, pay load & return date of the rolling stock should be stenciled at appropriate location on body end wall.
5. POH and IOH of the rolling stock shall be done as per maintenance pattern of ICF coaches.
6. Railway should do proper corrosion study of headstock and underframe before taking up coach for conversion.

***

857672/2021/CEDO SECTION

INSPECTION REPORT OF AUTOMOBILE CARRIER (NMGH) COACH (converted from Non-AC conventional ICF coach) AS PER RDSO's Drg No. RDSO/CG/DRG/20001 UP TO MAXIMUM OPERATING SPEED OF 110 KMPH OVER INDIAN RAILWAYS

1. Director General/RDSO vide letter No MC/MV/Maruti dated 08.03.2021 submitted an application for introduction of Automobile Carrier (NMGH) (converted from Non-AC conventional ICF coaches) for use by Indian Railways up to a maximum speed of 110 kmph on track maintained as per provisions of Indian Railways Permanent Way Manual, June-2020, containing track geometry standards under Para 522. Automobile Carrier fitted with helical coil springs at primary and secondary stage (NMGH) (Converted from Non-AC conventional ICF coaches) which can be utilised for transportation of automobiles like SUVs, tractors, cars etc. RDSO has designed Automobile Carrier (NMGH) for conversion of Non-AC conventional ICF coaches in to NMGH by removing complete interior furnishing. Modified end opening doors have been provided at both end by cutting end walls. The complete under frame members and shell members have been attended for extensive corrosion repairs during modification in Railway workshops. No changes in existing principal dimensions of coach, bogie and suspension design have been done

I inspected the Automobile Carrier (NMGH) (coach no. CR 97876) in terms of provisions of Section 27 of The Railways Act, 1989-at Safdarjung station (DSJ), New Delhi on 21.03.2021. Dy.CRS/ET/LKO, Dy.CRS/Mech/LKO, ED/Carriage/RDSO, and other officials of Northern Railway, RDSO accompanied me during the inspection.

Based on the inspection of rolling stock and the documents submitted by the RDSO, the subject rolling stock is recommended for sanction of Central Govt subject to compliance of the conditions as mentioned in Para 2 below :

2. **Measures to be taken before introduction of ICF type Automobile Carrier (NMGH) Coach:**
   a) Light Pipe arrangement has been provided in the rolling stock for illumination. Some more light pipes may be provided in future production to further improve the illumination.
   b) There is some gap between the doors and end panel wall. This should be eliminated /minimised as water may enter inside the coach during heavy rains.
   c) It was informed that some electrical wires are still left inside the panel near the cant rail They may be removed to eliminate any chance of fire hazards
   d) Maximum permissible speed, tare weight, pay load & return date of the rolling stock should be stencilled at appropriate location on body end wall.
   e) POH and IOH of the rolling stock shall be done as per maintenance pattern of ICF coaches.
   f) Railway should do proper corrosion study of headstock and underframe before taking of coach for conversion.

3. **Details of NMGH Coach:**

Proto-type conversion of NMGH coach from Non-AC conventional ICF coaches has been carried out by Parel Workshop/CR to RDSO drawing no. RDSO/CG/DRG/20001 having maximum axle load capacity of 16.25t. RDSO's application for operation of NMGH coach is based on speed certificate No. MC/MV/Maruti dated 06.03.2021 for operation of NMGH coach upto maximum speed of 110 km/h. RDSO informed that this coach is similar to Non-AC conventional ICF coach in terms of principal dimensions, suspension, bogie design, brake system etc. Comparative details of these two types of coaches are enclosed as Annexure I. Unique transportation code of the rolling stock is NMGH. Important features of the coach are as under:

(i) Maximum width and Maximum height available inside the coach have been made available for movement and to accommodate more variants of automobiles. End loading doors of arch type and roof support angles have been re-designed to meet this goal.

(ii) Proper entry slope and fall plate design to facilitate smooth movement of road transport vehicles inside NMGH rake.

(iii) Standard lashing arrangement similar to the arrangement in BCACBM wagons welded on both sides to facilitate lashing by slings, D-shackles etc.

(iv) Fully welded chequered sheet flooring without any floor protrusions and strong fall-plate design to facilitate faster loading / unloading, without any damage to rubber tyres of automobiles.

(v) To improve the general illumination inside the coach, window louvers and natural lighting by roof mounted light-pipe has been provided. Fixtures for affixing portable battery operated lamps have also been provided for extra lighting, if required

(vi) Retro-reflective tapes and road paved markers have been provided for guidance and safe movement of automobiles during loading /unloading, Possibility of loading / unloading at roadside stations not having ramps.

(vii) To prevent damage to doors during opening, provision for fitting rubber claddings has been made on the side walls

(viii) Suitable for wide range of automobiles, tractors and two-wheelers.

4. **Suspension:-**
The coach is having helical coil spring at primary and secondary stage. No change in existing suspension designs of ICF all coil bogies.

5. **Coupler:**
The coach is fitted with Screw Coupling & Side Buffers. No change in existing coupler and side buffers of ICF Non-AC coaches.

6. **Details of modifications in NMGH coach are as under:-**

(i) The complete under-frame members and shell members have been given extensive corrosion repairs during modification in Railway Workshops. The camber on these NMGH coaches after modification has been stipulated as +13mm to -15mm in the middle and +6mm to -10mm at the ends.

(ii) Complete interior furnishing including seat and berths, partitions, all electrical fittings, battery box, alternators all footsteps, passenger amenities , interior side wall panels, all lavatories, water tanks etc. have been removed.

(iii) Higher strength floor with proper entry slope comprising of fully welded chequered sheet without any floor protrusions.

(iv) Standard lashing arrangement based on proven design in BCACBM wagons welded on both sides to facilitate lashing by slings and D-shackles etc.

(v) Retro-reflective tapes on floor, roof support angles and side wall, road paved markers on floor along the coach provided.

(vi) One natural light pipe arrangement in roof by removing roof ventilator at the mid of coach. Fixtures for affixing portable battery operated lamps have also been provided for extra lighting, if required

(vii) 8 numbers of windows blanked with louvers and rest of the windows and body side entrance doors have been blanked with steel plates.

(viii) Arch type improved design end loading doors with increased height. Barrel type locking arrangement similar to BCACBM wagons provided.

(ix) Improved strength fall-plate design to facilitate smooth, faster loading / unloading without any damage to rubber tyres of automobiles.

7. **Brake System**
The coach is equipped with Bogie Mounted Twin Pipe graduated release air brake system.

8. **Maintenance**
The ICF type automobile carrier coach (NMGH) shall be maintained as per Maintenance Manual for ICF coaches issued by CAMTECH, Gwalior with latest amendments.

9. **Sample check of Dimensions in NMGH coach**
The following sample dimensions were checked:

S.No.	Dimension	Value as per drawing no. RDSO/CG/DRG/20001 Alt.01	Measured value* in mm
1	End wall to end wall (in mm)	21337	21336
2	Width of coach (in mm)	3245	3250
3	Bogie Centre Distance (in mm)	14900	14900
4	Axle to Axle (Wheel Base)	2896	2898

**All measurements were taken on platform line, in some cases there may be slight variation due to accuracy of tape, leveling of track, undulation of body of the rolling stock and access to locations.*

All measurements were found within limits.

10. The design of Automobile Carrier (NMGH) (converted from Non-AC conventional ICF coaches) does not infringe any clause of chapter-IV of IRSOD (BG) Revised-2004 with latest addendum & corrigendum slips.

11. Some of the photographs taken during above inspection are enclosed at **Annexure II.**

24/12/2021

(Shailesh Kumar Pathak)
Chief Commissioner of Railway Safety

Enclosures: As above

Comparison of NMG and NMGH

S. No	Description	Parameters of NMG	Parameters of NMGH
1	Schedule of Dimension (SOD)	IRSOD-2004 (with latest ACS)	IRSOD-2004 (with latest ACS)
2	MMD (Maximum Moving Dimension)	MMD to Diagram-1-D of IRSOD-2004 (Latest ACS)	MMD to Diagram-1-D of IRSOD-2004 (Latest ACS)
3	Coach profile	RDSO SK-66064	RDSO SK-66064
4	Shell Material	IRSM-41 steel	IRSM-41 steel
5	Length over body	21337 mm	21337 mm
6	Length over buffers	22297 mm	22297 mm
7	Max width over body	3245 mm	3245 mm
8	Buffer centers	1956 mm	1956 mm
9	Overall height of coach from rail level	4025 mm	4025 mm
	Floor height from Rail Level	1378 mm	1378 mm
10	Bogie centers distance	14783 mm	14783 mm
11	Rigid wheel base of bogie	2896 mm	2896 mm
12	Buffer height from Rail level	1105 mm – 1030mm	1105 mm – 1030mm
13	Axle Load Capacity	13.0t/16.25t	16.25t
14	Tare Weight	32.0t	31.0 t
15	Total Pay load	9.2t	12.0t
16	Gross Weight	41.2t	43.0t
17	Bogie	16.25t /13t capacity bogies with primary and secondary coil spring suspension arrangement, dashpot guide arrangement.	16.25t capacity bogies with primary and secondary coil spring suspension arrangement, dashpot guide arrangement.
18	Brakes	Under frame/bogie mounted graduated release air brake system	Bogie mounted graduated release air brake system
19	Wheel diameter	915 (new) and 825 (worn)	915 (new) and 825 (worn)

20	Coupling	Screw Coupling	Screw Coupling
21	Max. Permissible Speed	75 km/h	110 km/h
22	Roller Bearings	Direct mounted, spherical	Direct mounted, spherical
23	Primary Suspension Arrangement	Helical springs – 8 nos./bogie	Helical springs – 8 nos./bogie
24	Secondary Suspension Arrangement	Helical springs (nested) – 4 nos./ bogie	Helical springs (nested) – 4 nos./ bogie
25	Mode of weight transfer	Through side bearers. Centre pivot acts as a centre of rotation.	Through side bearers. Centre pivot acts as a centre of rotation.
26	Flooring	Flooring arrangement comprises of Compreg and partially chequered plate with wooden slats.	Higher strength floor with proper entry slope comprising of fully welded chequered sheet without any floor protrusions.
27	Lashing arrangements	Protruded floor hook type lashing arrangement.	Standard lashing arrangement based on proven design of BCACBM wagons welded on both sides to facilitate lashing by slings and D-shackles etc.
28	Guidance for automobile vehicles	Retro-reflective tapes on floor	• Retro-reflective tapes on floor, roof support angles and side wall. • Floor reflectors (road paved markers on floor) along the coach.
29	Lighting arrangement and ventilation	---	• One natural light pipe arrangement in roof. • 8 numbers of windows blanked with louvers • Fixtures for affixing portable battery operated lamps
30	End loading/unloading doors	• Rectangular doors with clear opening height-2050mm. • Aldrop type conventional locking arrangement.	• Arch type improved design doors with increased clear height: Clear height at centre - 2470mm Clear height at corners - 2350mm • Barrel type locking arrangement similar to BCACBM wagons.

31	Fall plate design	Conventional and non-standard fall plate design.	Improved strength fall-plate design to facilitate smooth, faster loading / unloading without any damage to rubber tyres of automobiles.
32	Overall clear height from floor level to strengthening roof support angle.	2125 mm approx.	Clear height inside coach increased by re-designing strengthening roof support angles. Clear height at center of roof-2500mm approx. Clear height at corners-2220mm approx.

(143)

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड) (Railway Board)

No. 2021/CEDO/SR/13(LWACCNE) New Delhi, Dated 30.03.2021

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Introduction of **LHB AC-3 Tier Economy coach 'LWACCNE'** on LHB platform (83 berth capacity) [Maximum Axle Load: **16.25t**] to RCF's Layout Drawing No. LE90067 fitted with pneumatic suspension at the secondary stage on FIAT bogies up to a **maximum speed of 160 kmph** over Indian Railways, by Zonal Railways on track maintained as per Para 522 of Indian Railways Permanent Way Manual, June-2020

Ref : (i) CCRS letter No. Q.12011/20/2020&21- t.w, Dated 25.03.2021
(ii) RDSO's letter No. SV.FIAT(SC)/Sanction/LWACCNE, Dated 05.03.2021

Chief Commissioner of Railway Safety, Lucknow; while forwarding the case for the sanction of the Railway Board for introduction of LHB AC-3 Tier Economy coach 'LWACCNE' on LHB platform (83 berth capacity) [Maximum Axle Load: 16.25t] to RCF's Layout Drawing No. LE90067 fitted with pneumatic suspension at the secondary stage on FIAT bogies up to a maximum speed of 160 kmph over Indian Railways, by Zonal Railways, has recommended certain measures to be taken before introduction of the above rolling stocks, reproduced as under:

i. 'Aspiration type smoke detection alarm system with standalone brake application' has been provided for fire safety in the coaches. Proper training to on board staff (mechanical, electrical, commercial etc) regarding understanding of various aspects of the system like 'Alert', 'Action & 'Fire 1' should be provided. Suitable Pre-recorded announcement regarding action to be taken by passengers in case of fire alarm/announcement from VESDA should be periodically made during run.
ii. Railway must ensure that coach is not permitted to run with non-operative/faulty VESDA.
iii. Fire alarm buzzer of VESDA should be placed in such a way so that it is audible in each cubicle of the coach.
iv. Visual Indication of fire alarm of VESDA was found to be dysfunctional during inspection. Proper functioning of visual indication and buzzer shall be ensured in all coaches.
v. For fire detection and suppression system one condensed aerosol based, stand-alone unit 'Automatic fire detection cum water suppression system' has been provided inside electrical panel/cubicle. It is suggested that one or two more such units of

appropriate capacity may be provided at suitable locations in the electrical panel for better safety against fire hazards. It shall also be ensured that all electrical panels are in locked condition during run.

vi. FRP Doors of dustbin under the washbasin should be replaced by metallic door for improved fire safety. Similarly metallic drain pipe may be provided for wash basins.

vii. 'You are under CCTV surveillance' & 'No Smoking' stickers of suitable size indicating the penalty for such offence should be pasted at appropriate locations in doorway area. Pre-recorded announcement should also be made during run to sensitise the passengers against fire hazards caused due to smoking and the penalty for such offence.

viii. Presently sliding doors are provided at both ends of passenger compartment. Guide Rails provided for these doors should be at floor level to avoid any injury to passenger and obstruction to luggage movement.

ix. Swing type door may be provided at one end for easier and faster evacuation in emergency situations like fire accident etc

x. Counter sunk bolts needs to be provided in middle berth as the existing bolts are protruding outwards and may cause injury to passengers.

xi. There were sharp edges on the foot step used for reaching the middle & upper berth. These edges may be made round.

xii. As water bottle holder for side upper & side lower berths has been provided near the charging point it will cause inconvenience for passengers. It may be suitably relocated. As these water bottle holders are of new designs, stickers describing way of opening of these water bottles should be pasted.

xiii. There was gap in two portions of side lower berths. Side Lower berths should be so designed to eliminate this gap. Proper support for the folding parts should be provided so as to maintain them at proper level while sleeping.

xiv. Stickers showing way of folding/unfolding of snack tray should be pasted on the tray itself

xv. For lower berths charging point, reading lamp and bottle holder needs relocation at more convenient places to improve accessibility.

xvi. Stickers indicating 'Non-contact foot operated taps' needs to be pasted near the washbasin taps for passenger convenience.

xvii. There is provision of only electric switch for flush in lavatories. Manually operated flush may also be provided to be used in case of power failure.

xviii. Trilingual (Local language, Hindi, English) stickers indicating 'Divyangjan' should be pasted at lavatory meant for them

xix. AC ducts for each berth have been provided. Mesh should be provided inside the duct for preventing passengers from dumping the garbage. Provision for periodic cleaning of these AC duct should be made.

xx. Only one hook has been provided for holding the window curtain In case of its breakage the curtain will become dysfunctional. To avoid this, two sturdy hooks on either side of the window at bottom & middle portion may be provided

xxi. Training should be imparted to crew regarding action taken in case of deflated air spring & breakage of coil springs as per instructions contained in RDSO letters no. SV.AS.ML Dated 30.10.2019 & SV.FIAT Spring Dated 08.11.2018.

RDSO is requested to examine the issues involved and submit comments at the earliest.

DA: as above.

Prem Sagar
30/03/21

(प्रेम सागर गुप्ता)
कार्यकारी निदेशक / सिविल इंजीनियरिंग(जी) / रेलवे बोर्ड
[Rly no. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

Copy forwarded for information to:

1. Executive Director (Standards) Carriage, RDSO, Lucknow
2. Executive Director (Standards) Motive Power, RDSO, Lucknow
3. Executive Director ME(Chg), Railway Board

O/C

ISSUE PLS
30.3.2021

31/3/21

85x671/2021/CCRS/DOC SECTION

भारत सरकार
नागर विमानन मंत्रालय
(रेल संरक्षा आयोग)
GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

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146

पूर्वोत्तर रेलवे, मं.रे.प्र. कार्यालय परिसर
16, अशोक मार्ग, लखनऊ-226001

N.E. Railway, DRM OFFICE CAMPUS
16, Ashok Marg, Lucknow-226 001

संख्या–Q.12011/20/2020–21–त.वि

दिनांक–25.03.2021

सेवा में,

सचिव (सिविल इंजी.)
रेल मंत्रालय (रेलवे बोर्ड)
रेल भवन
नई दिल्ली

[ध्यानार्थ:EDCE(G)]

विषय: Introduction of **LHB AC-3 Tier Economy coach 'LWACCNE' on LHB platform (83 berth capacity)** [Maximum Axle Load: 16.25t] to RCF's Layout Drawing No. LE90067 fitted with pneumatic suspension at the secondary stage on FIAT bogies up to a **maximum speed of 160 kmph** over Indian Railways on track maintained as per provisions of Indian Railways Permanent Way Manual, June-2020, containing track geometry standards under Para 522

संदर्भ: (i) DG/RDSO's letter No. SV.FIAT(SC)/Sanction/LWACCNE, Dated 05.03.2021
(ii) RDSO's Final Speed Certificate (FSC) no. SV.FIAT(SC)/Sanction/LWACCNE/160kmph, Dated 05.03.2021

Vide reference (i), RDSO has approached this office seeking Railway Board's sanction for introduction of subject rolling stock up to a maximum speed of 160 kmph over Indian Railways on track maintained as per provisions of Indian Railways Permanent Way Manual, June-2020 containing track geometry standards under Para 522 for use by Railways on the basis of RDSO's Final Speed Certificate mentioned under reference (ii).

Case has been examined by this office and is found to be in order. Accordingly, the same is being forwarded to Railway Board for necessary action with the recommendation for the sanction of the Central Government for operation of **LHB AC-3 Tier Economy coach 'LWACCNE' on LHB platform (83 berth capacity)** [Maximum Axle Load: 16.25t] to RCF's Layout Drawing No. LE90067 fitted with pneumatic suspension at the secondary stage on FIAT bogies up to a maximum speed of **160 [ONE HUNDRED SIXTY]** kmph over Indian Railways on track maintained as per provisions of Indian Railways Permanent Way Manual, June-2020, containing track geometry standards under Para 522 with conditions mentioned in **Annexure-1**

Observations from CCRS Inspection Report about 'Measures to be taken before introduction of LHB AC-3 Tier Economy coach 'LWACCNE' are enclosed as **Annexure-2.** The compliance of the same should also be submitted to the Commission.

Further, 'Measures for future improvement of the subject rolling stock' are attached as **Annexure-3.**

This is issued with the approval of CCRS.

A Siddiqui
25/3/2021
(अहमद नदीम सिद्दीकी)
उप रेल संरक्षा आयुक्त (यांत्रिक)

संलग्नक: यथोक्त

प्रतिलिपि:
महानिदेशक (सवारी डिब्बा)
सवारी डिब्बा निदेशालय (एनेक्सी–1),
अनुसंधान, अभिकल्प एवं मानक संगठन,
मानक नगर, लखनऊ–226011

Annexure-1/Page 1 of 2

[of CCRS Office's Letter No. Q.12011/20/2020-21-CRS, Dated 25.03.2021]

Conditions to be ensured by the Railway for operation of LHB AC-3 Tier Economy coach 'LWACCNE' on LHB platform (83 berth capacity) [Maximum Axle Load: 16.25t] to RCF's Layout Drawing No. LE90067 fitted with pneumatic suspension at the secondary stage on FIAT bogies up to a maximum speed of 160 kmph over Indian Railways

1. Observance of all conditions laid down in RDSO's Final Speed Certificate No. SV.FIAT(SC)/Sanction/LWACCNE/160kmph, Dated 05.03.2021 for operation up to a maximum speed of 160 kmph on track maintained as provisions of Indian Railway Permanent Way manual, June 2020, containing track geometry standards under Para 522. **Remarks of the Railway against each para of the Speed Certificate shall be submitted to the Commission before the start of actual operation of rolling stock.**
2. As per para 6.1.2 of Revised Policy Circular-6 Dated 31.10.2018, trains will be introduced in the sections at the speeds as per provision of General Rules 1976–Rule 4.08 1(a).
3. All the provisions contained in the Railway Board's letter no. 2014/CE-II.TSC/I Pt.1 dated 08.09.2016 regarding track structure for speed beyond 110 kmph should be strictly complied.
4. For speed up to 130 kmph, Railway shall ensure provision of sturdy fencing at vulnerable locations to prevent accidents related to trespassing. Zonal Railways should also plan subways at suitable location to avoid trespass and ensure effectiveness of fencing provided.For speed beyond 130 kmph and up to 160 kmph, Railway shall ensure provision of sturdy fencing all along the track to prevent accidents related to trespassing.
5. Supervisors/officers shall not undertake push trolley inspection and working of rail dolly on the face of 160 kmph trains. Suitable guidelines shall be issued by the Railway in this regard.
6. Railways shall ensure that the platform line is NOT the run-through line.
7. Observance of all permanent and temporary speed restrictions already in force and /or those that may be imposed from time to time on various accounts.
8. Maximum speed of coach shall be restricted to speeds proposed therein or the maximum permissible speed of the section whichever is less.
9. All the turnouts in facing direction shall be laid with thick web switches with provision of clamp type lock. All the crossings shall be CMS crossing. All other turnout shall be of fixed heel curved switch type with CMS crossings.
10. Track geometry shall be monitored by Track Recording Car (TRC), Oscillograph Car and OMS at laid down frequency.
11. Zonal Railway shall interpret the results of runs of OMS, TRC and Oscillograph Car and ensure corrective & preventive action, as considered necessary.
12. Rail grinding at regular interval shall be done on the entire route for better riding behaviour and to avoid rail fracture/weld failures. Regular greasing of all the curves in the section shall be ensured.
13. Stretches of existing weak formations (where permanent/temporary speed restriction is imposed), if any, shall be planned to be rehabilitated/strengthen first before permitting higher speed.
14. Location of bridges on which speed restrictions have been imposed shall be notified by the Railways and incorporated in the working timetable.
15. Sleeper on bridges (other than ballasted deck) shall be steel channel/h-beam/Composite sleepers.
16. In case of train (with this coach in its composition) having EBD of more than 1 km and non provision of second distant signal/4 aspect automatic signalling in the section, action as per A&C no.9 of SEM Pt-I shall be taken.
17. Multi Aspect Colour Light Signalling (MACLS) with two Distant Signals or Automatic Signalling shall be provided. If two Distant Signals are provided, the Distant (outer most) signal shall be located at a Distance of not less than 2Km in rear of the home signal. The inner Distant Signal (existing Distant Signals) can be retained at its present *distance* in rear of the existing home signal. This shall also be applicable to the IBS and the interlocked level crossing gates located in the block sections.

18. Where Automatic Signalling is not provided, means for verifying complete arrival of train by provision of Block Proving by Axle Counter (BPAC) is necessary on high density routes and for stations provided with central panel interlocking.
19. Electrical operation of points and means for locking both switches, means for lock detection and independent switch detection by the respective signals shall be ensured. The interlocking between signal and points shall be by electrical or electronic means (PI/RRI/SSI).
20. All level crossing gates with in station limit should be manned and interlocked with station signals. All level crossing gates outside station limit should be interlocked depending on the classification of level crossing. All level crossings shall be provided with telecommunication facilities.
21. Signalling to protect level crossings should be provided as per Section 'D' (Para 7.43 to 7.46), Chapter-VII of IRSEM. As per para 7.46.2 of IRSEM, there should be no LC gate within the Block Overlap (180m) from the Home signal. If it is there, Home signal should be relocated and placed beyond 180m. No new level crossing should be located within Signal/Block Overlap.
22. Action shall be taken for relocation/modification of engineering signals in consultation with S&T and OHE department of Zonal Railways.
23. Provision of Train Protection Warning System (TPWS) shall be ensured on the route for operation at 160 kmph.
24. Suitable and reliable communication shall be provided in the locomotive and guards van for communication between loco pilot, guard and adjacent station master.
25. Before starting the operation, the PCME of the concerned Railway shall certify the track worthiness and safety of the rolling stock and shall also ensure proper maintenance of the rolling stock.
26. Brakes of the rolling stock shall be in good working order during the operation.
27. The Wheel Slide Protection (WSP) device of all the coaches in the rake shall be functional at the starting station.
28. LWACCNE coach shall be maintained as per "Maintenance manual for LHB Coaches".
29. In case air spring gets deflated, the speed shall be limited to 60 kmph. This has to be manually implemented by the driver. Suitable mechanism shall be in place for indication of deflated spring to train driver.
30. In case of enroute breakage of primary coil spring action as per instructions contained in RDSO letter no. SV.FIAT Spring dt. 08.11.18 shall be taken
31. Earthing in the coach body & all the panels shall always be properly maintained.
32. Suitable mechanism to Train driver shall be available in case of isolation of brakes of any bogie.
33. As stipulated in Railway Board's letter no. 97/M(C)/137/1 Volume-VI, Dated 09.06.2004 and RDSO's Report no.CT-20 Rev.2 duly approved by Railway Board's letter no. 2014/CE-II/TK/HS Dated 09.12.2014, the following maintenance facilities are required to be developed by Railways for operation at 160 kmph:

    (a) Well lighted all weather covered area for under gear examination and maintenance of sub-assemblies.
    (b) Boundary wall for safety and security of the rake and the facilities.
    (c) Automatic washing plant at entry point.
    (d) Wheel profile measurement and re-profiling system.
    (e) In-situ wheel changing facility.
    (f) Automated and instrumented maintenance system in lieu of existing system based on visual inspection.
    (g) A separate bay with capacity for lifting and change of complete bogie platform for attention to roof mounted AC equipments.

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[of CCRS Office's Letter No. Q.12011/20/2020-21-ii.B, Dated 25.03.2021]

Measures to be taken before introduction of LHB AC-3 Tier Economy coach 'LWACCNE' on LHB platform (83 berth capacity)

Statutory inspection of the rolling stock by the CCRS was carried out on 21.03.2021 at Delhi Safdarjung Station, Northern Railway. Para 2 of CCRS Inspection Report which suggests the measures to be taken before introduction of subject rolling stock is reproduced below for taking necessary action for their implementation:

1. 'Aspiration type smoke detection alarm system with standalone brake application' has been provided for fire safety in the coaches. Proper training to on board staff (mechanical, electrical, commercial etc) regarding understanding of various aspects of the system like 'Alert', 'Action & 'Fire 1' should be provided. Suitable Pre-recorded announcement regarding action to be taken by passengers in case of fire alarm/announcement from VESDA should be periodically made during run.
2. Railway must ensure that coach is not permitted to run with non-operative/faulty VESDA.
3. Fire alarm buzzer of VESDA should be placed in such a way so that it is audible in each cubicle of the coach.
4. Visual Indication of fire alarm of VESDA was found to be dysfunctional during inspection. Proper functioning of visual indication and buzzer shall be ensured in all coaches.
5. For fire detection and suppression system one condensed aerosol based, stand-alone unit 'Automatic fire detection cum water suppression system' has been provided inside electrical panel/cubicle. It is suggested that one or two more such units of appropriate capacity may be provided at suitable locations in the electrical panel for better safety against fire hazards. It shall also be ensured that all electrical panels are in locked condition during run.
6. FRP Doors of dustbin under the washbasin should be replaced by metallic door for improved fire safety. Similarly metallic drain pipe may be provided for wash basins.
7. **'You are under CCTV surveillance'** & **'No Smoking'** stickers of suitable size indicating the penalty for such offence should be pasted at appropriate locations in doorway area. Pre-recorded announcement should also be made during run to sensitise the passengers against fire hazards caused due to smoking and the penalty for such offence.
8. Presently sliding doors are provided at both ends of passenger compartment. Guide Rails provided for these doors should be at floor level to avoid any injury to passenger and obstruction to luggage movement.
9. Swing type door may be provided at one end for easier and faster evacuation in emergency situations like fire accident etc
10. Counter sunk bolts needs to be provided in middle berth as the existing bolts are protruding outwards and may cause injury to passengers.
11. There were sharp edges on the foot step used for reaching the middle & upper berth. These edges may be made round.
12. As water bottle holder for side upper & side lower berths has been provided near the charging point it will cause inconvenience for passengers. It may be suitably relocated. As these water bottle holders are of new designs, stickers describing way of opening of these water bottles should be pasted.
13. There was gap in two portions of side lower berths . Side Lower berths should be so designed to eliminate this gap. Proper support for the folding parts should be provided so as to maintain them at proper level while sleeping.
14. Stickers showing way of folding/unfolding of snack tray should be pasted on the tray itself
15. For lower berths charging point, reading lamp and bottle holder needs relocation at more convenient places to improve accessibility.

16. Stickers indicating 'Non-contact foot operated taps' needs to be pasted near the washbasin taps for passenger convenience.
17. There is provision of only electric switch for flush in lavatories. Manually operated flush may also be provided to be used in case of power failure.
18. Trilingual (Local language, Hindi, English) stickers indicating 'Divyangjan' should be pasted at lavatory meant for them
19. AC ducts for each berth have been provided. Mesh should be provided inside the duct for preventing passengers from dumping the garbage. Provision for periodic cleaning of these AC duct should be made.
20. Only one hook has been provided for holding the window curtain In case of its breakage the curtain will become dysfunctional. To avoid this, two sturdy hooks on either side of the window at bottom & middle portion may be provided
21. Training should be imparted to crew regarding action taken in case of deflated air spring & breakage of coil springs as per instructions contained in RDSO letters no. SV.AS.ML Dated 30.10.2019 & SV.FIAT Spring Dated 08.11.2018.

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[of CCRS Office's Letter No. Q.12011/20/2020-21-ii/9., Dated 25.03.2021]

Measures for future improvement of the subject rolling stock

Statutory inspection of the rolling stock by the CCRS was carried out on 21.03.2021 at Delhi Safdarjung Station, Northern Railway. Para 3 of CCRS Inspection Report which suggests the measures for future improvement of the coach is reproduced below for taking necessary action for their implementation:

1. Presently CBCs are being used with LHB coaches due to which jerk and lurches are felt while travelling. It is suggested to explore possibilities of using Semi-permanent Schaku Couplers in place of CBCs. One of the issue which is flagged by the Railways that coupling/decoupling of Schaku coupler takes lot more time than CBCs. As all LHB coaches are provided with power and communication couplers also and detachment and attachment of coaches requires manually uncoupling of these couplers also. Therefore, time taken in decoupling/coupling CBCs and Schaku coupler should not differ much. Further, as lurches and jerks will be much less in case of Schaku coupler, forces coming on to Schaku couplers may be substantially less. Railways should do detailed study and explore the possibilities of providing semi-permanent Schaku couplers in place of existing CBCs in LHB coaches.
2. In view of the recent serious fire cases in premium trains like Shatabdi, it is desirable to have EIG sanction for these coaches so that power arrangements, electrical circuits, wiring etc. can be thoroughly checked and any shortcoming can be rectified before putting the coach in service.
3. Railway should calculate Fire load of all type of AC coaches and compare it with the international standards.
4. Provision of Water Mist type fire extinguishers may be explored in place of DCP type fire extinguishers
5. Trial for estimating time taken for evacuating the passengers & on board staff from coach packed to full capacity should be done. Report of the same should be furnished to Commission

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857671/2021/CEDO SECTION

INSPECTION REPORT OF AC-III TIER ECONOMY COACH (LWACCNE) ON LHB PLATFORM (83 BERTH CAPACITY) FITTED WITH PNEUMATIC SUSPENSION AT THE SECONDARY STAGE IN FIAT BOGIES AS PER RCF'S LAYOUT DRAWING NO. LE90067 UP TO MAXIMUM OPERATING SPEED OF 160 KMPH OVER INDIAN RAILWAYS

1. Director General/RDSO vide letter No SV.FIAT(SC)/Sanction/LWACCNE dated 05.03.2021 has submitted an application for introduction of AC-III Tier Economy coach (Transportation code-LWACCNE) on LHB platform (83 berth capacity) fitted with pneumatic suspension (160kN) at the secondary stage in FIAT bogies for use by Railways upto a maximum speed of 160 kmph on track maintained as per provisions of Indian Railways Permanent Way Manual, June-2020, containing track geometry standards under Para 522. LWACCNE Coach has enhanced passenger carrying capacity (83 berths) with improved passenger amenities like aesthetically pleasing furnishing, individual AC ducts, mobile charging points for each berths, wider sliding door and lavatories for 'Divyangjan'.

   I inspected the LWACCNE Coach (Coach no. WR 211151/C) in terms of provisions of Section 27 of The Railways Act, 1989–at Safdarjung station (DSJ), New Delhi on 21.03.2021. Dy.CRS/ET/LKO, Dy.CRS/Mech/LKO, ED/Carriage/RDSO, Sr DME/Cord/NDLS, CDE/RCF, CEDE/RCF and other officials of Northern Railway, RDSO & RCF Kapurthala accompanied me during the inspection.

   Based on the inspection of rolling stock and the documents submitted by the RDSO, the subject rolling stock is recommended for sanction of Central Govt subject to compliance of the conditions as mentioned in Para 2 & 3 below :

2. **Measures to be taken before introduction of AC-III Tier Economy coach LWACCNE:**
   a. 'Aspiration type smoke detection alarm system with standalone brake application' called VESDA has been provided for fire safety in the coaches. Proper training to on board staff (mechanical, electrical, commercial etc) regarding understanding of various aspects of the system like 'Alert', 'Action & 'Fire 1' should be provided. Suitable Pre-recorded announcement regarding action to be taken by passengers in case of fire alarm/announcement from VESDA should be periodically made during run.
   b. Railway must ensure that coach is not permitted to run with non-operative/faulty VESDA.
   c. Fire alarm buzzer (Photograph No.12) of VESDA should be placed in such a way so that it is audible in each cubicle of the coach.
   d. Visual Indication of fire alarm of VESDA was found to be dysfunctional during inspection. Proper functioning of visual indication and buzzer shall be ensured in all coaches.
   e. For fire suppression system one condensed aerosol based, stand-alone unit has been provided inside electrical panel/cubicle. It is suggested that one or two more such units of appropriate capacity may be provided at suitable locations in the electrical

24/3/2021

panel for better safety against fire hazards. It shall also be ensured that all electrical panels are in locked condition during run.

f. FRP Doors of dustbin under the washbasin should be replaced by metallic door for improved fire safety. Similarly metallic drain pipe may be provided for wash basins.

g. **'You are under CCTV surveillance'** & **'No Smoking'** stickers of suitable size indicating the penalty for such offence should be pasted at appropriate locations in doorway area. Pre-recorded announcement should also be made during run to sensitise the passengers against fire hazards caused due to smoking and the penalty for such offence.

h. Presently sliding doors are provided at both ends of passenger compartment. Guide Rails provided for these doors (Photograph No.19) should be at floor level to avoid any injury to passenger and obstruction to luggage movement.

i. Swing type door may be provided at one end for easier and faster evacuation in emergency situations like fire accident etc

j. Counter sunk bolts needs to be provided in middle berth as the existing bolts are protruding outwards (Photograph No.8) and may cause injury to passengers.

k. There were sharp edges on the foot step (Photograph no. 7) used for reaching the middle & upper berth. These edges may be made round.

l. As water bottle holder (Photograph no. 10) for side upper & side lower berths has been provided near the charging point it will cause inconvenience for passengers. It may be suitably relocated. As these water bottle holders are of new designs, stickers describing way of opening of these water bottles should be pasted.

m. There was gap in two portions of side lower berths (Photograph no. 16). Side Lower berths should be so designed to eliminate this gap. Proper support for the folding parts should be provided so as to maintain them at proper level while sleeping.

n. Stickers showing way of folding/unfolding of snack tray (Photograph no. 7) should be pasted on the tray itself

o. For lower berths charging point, reading lamp and bottle holder (Photograph No. 6) needs relocation at more convenient places to improve accessibility.

p. Stickers indicating 'Non-contact foot operated taps' needs to be pasted near the washbasin taps for passenger convenience.

q. There is provision of only electric switch (Photograph No. 13) for flush in lavatories. Manually operated flush may also be provided to be used in case of power failure.

r. Trilingual (Local language, Hindi, English) stickers indicating 'Divyangjan' should be pasted at lavatory meant for them

s. AC ducts for each berth have been provided. Mesh should be provided inside the duct for preventing passengers from dumping the garbage. Provision for periodic cleaning of these AC duct should be made.

t. Only one hook has been provided for holding the window curtain (Photograph no. 15) In case of its breakage the curtain will become dysfunctional. To avoid this, two sturdy hooks on either side of the window at bottom & middle portion may be provided

u. Training should be imparted to crew regarding action taken in case of deflated air spring & breakage of coil springs as per instructions contained in RDSO letters no. SV.AS.ML Dated 30.10.2019 & SV.FIAT Spring Dated 08.11.2018.

24/8/2021

3. **Measures for future improvement/study of the subject rolling stock:**
   a. Presently CBCs are being used with LHB coaches due to which jerk and lurches are felt while travelling. It is suggested to explore possibilities of using Semi-permanent Schaku Couplers in place of CBCs. One of the issue which is flagged by the Railways that coupling/decoupling of Schaku coupler takes lot more time than CBCs. As all LHB coaches are provided with power and communication couplers also and detachment and attachment of coaches requires manually uncoupling of these couplers also. Therefore, time taken in decoupling/coupling CBCs and Schaku coupler should not differ much. Further, as lurches and jerks will be much less in case of Schaku coupler, forces coming on to Schaku couplers may be substantially less. Railways should do detailed study and explore the possibilities of providing semi-permanent Schaku couplers in place of existing CBCs in LHB coaches.
   b. In view of the recent serious fire cases in premium trains like Shatabdi, it is desirable to have EIG sanction for these coaches so that power arrangements, electrical circuits, wiring etc. can be thoroughly checked and any shortcoming can be rectified before putting the coach in service.
   c. Railway should calculate Fire load of all type of AC coaches and compare it with the international standards.
   d. Provision of Water Mist type fire extinguishers may be explored in place of DCP type fire extinguishers
   e. Trial for estimating time taken for evacuating the passengers & on board staff from coach packed to full capacity should be done. Report of the same should be furnished to Commission.

4. **Details of LWACCNE coach:**

LWACCNE coach has been manufactured by RCF, Kapurthala to RCF layout drawing no. LE90067, having maximum axle load capacity of 16.25t. RDSO's application for operation of LWACCNE coach is based on speed certificate No. SV.FIAT (SC)/LWACCNE/160 kmph dated 05.03.2021 for operation of LWACCNE coach upto maximum speed of 160 km/h. RDSO informed that this coach is similar to LHB AC III Tier coach (LWACCN) in terms of principal dimensions, suspension, bogie design, brake system etc. Comparative details of both the stocks are enclosed as Annexure-I. Unique transportation code of the rolling stock is LWACCNE. Important features of the coach are as under:

   i. Redesign of the electrical panels to reduce footprint on the passenger deck, releasing additional floor space for passenger use.
   ii. Redesign of the coach layout to optimally utilize the released space as below:
      a. Increase Passenger capacity to 83 from the existing 72.
      b. Provision of an enabling entrance and compartment for 'Divyangjan' with wheel chair access.
      c. Provision of 'Divyangjan' friendly toilet with wheelchair access.
   iii. The following design improvements have also been made for further enhancing passenger comfort

a. Redesign of the AC ducting by providing individual vents for all berths.
b. Improved and modular design of seats and berths to improve comfort, reduce weight and improve maintenance friendliness.
c. Improved passenger conveniences in form of foldable snack tables in both longitudinal and transverse bays, injury free spaces and holders for water bottles, mobile phone and magazines.
d. Individual reading lights and mobile charging points for each berth.
e. Ergonomically improved design of ladder for accessing the middle and upper berths
f. Increased headroom in the middle and upper berths
g. Improved design of the Indian and the Western style lavatories.

iv. Ambience and ease of access has been improved by:-
a. Aesthetically pleasing and ergonomic entrance
b. Luminescent aisle markers
c. Illuminated berth indicators integral with night lights with luminescent berth numbers

v. Improved fire safety by ensuring compliance to world benchmark of EN45545-2 HL3 for interior materials.

vi. Details of material specification have been provided by the RDSO and it is attached at Annexure-II.

5. **Suspension:-**
The coach is having nested helical coil springs at primary suspension stage & pneumatic spring (160kN) at secondary suspension stage.

6. **Coupler:**
The coach is fitted with centre buffer couplers (CBC).

7. **Details of the compartment of LWACCNE coach are as under:-**

(i) Seating Capacity - 83
(ii) No. of Emergency windows per coach - 4 nos.
(iii) No. of Lavatories per coach - 4 nos.
(iv) No. of Fire Extinguishers per coach - 2 nos.
(v) No. of Emergency light per coach - 4 nos.
(vi) Alarm chain pulling devices – 11 Nos.
(vii) CCTV surveillance system.
(viii) Ergonomically designed Berths with Fire Retardant PU Foam.
(ix) USB Charging sockets for each passenger.
(x) FRP modular toilets provided with pressurized flushing system & bio tanks.
(xi) Auto Closing sliding intercommunication compartment doors provided on both sides at compartment entry.
(xii) Automatic Smoke and Fire Detection system(VESDA) with 13 No. of smoke sampling points and 4 Nos of Heat activated devices.
(xiii) PA system with speakers.
(xiv) Individual AC vent for each berth.

(xv) Sleek Luggage Racks in each Cabin, Foldable Water Bottle Holder and Individual Berth Reading Light.

(xvi) Injury Free features in passenger area. All fittings, seat handles provided with smooth curve finish

8. **Brake System**
The coach is equipped with twin pipe air brake system with following features:-

(i) Axle mounted disc brake system with Wheel slide protection (WSP) device.

(ii) An indicator has been provided outside the coach for indication regarding application (red)/release (green) position of brake, which was demonstrated during inspection.

9. **Failure Indication cum Brake Application (FIBA)** device has been provided in pneumatic circuit of air spring & air brake, total 2 nos. in coach i.e. one per bogie. It gets activated, flashes alarm & applies brake in case of air spring failure & decrease in pressure in air spring beyond permissible limit of 1 kg/cm^2, as informed by RDSO.

10. CFD analysis has been carried out by RCF for uniform distribution of the conditioned air.

11. **Maintenance**
It was informed by RDSO that coach shall be maintained as per periodical maintenance schedules laid down by CAMTECH in Maintenance Manual for LHB Coaches.

12. **Sample check of Dimensions in LWACCNE coach**
The following sample dimensions were checked:

S.No.	Dimension	Value as per Layout drawing no. LE90067	Measured value* in mm
1	End wall to end wall (in mm)	23540	23546
2	Width of coach (in mm)	3240	3240
3	Bogie Centre Distance (in mm)	14900	14900
4	Minimum clearance from rail level	91(Min.)	180
6	Axle to Axle (Wheel Base)	2560	2560

**All measurements were taken on platform line, in some cases there may be slight variation due to accuracy of tape, leveling of track, undulation of body of the rolling stock and access to locations.*
All measurements were found within limits.

13. **Aspiration type automatic Fire detection with alarm system:** The system was operated & displayed as per following:

Artificial smoke was generated in the coach and following are system generated alarms at different smoke levels.

a. Alert: When smoke level reached at 0.32%Obs/m for 20 seconds, alert light in the panel was activated.

b. Action: When smoke level reached at 0.64%Obs/m for 30 seconds, flasher light was operated.

c. Fire-1: When smoke level reached at 1.6%Obs/m for 45 seconds brake was applied. After 55 second of brake application hooter and flasher was activated in the coach and there was announcement of potential case of fire and safe disembarkation of passenger once the train comes to an halt in the coach both in Hindi and English language.

14. **The design of LWACCNE coach does not infringe any clause chapter-IV of IRSOD (BG) Revised-2004 with latest addendum & corrigendum slips.**

15. Some of the photographs taken during above inspection are enclosed at **Annexure III.**

(Shailesh Kumar Pathak)
Chief Commissioner of Railway Safety

Enclosures : As above

Annexure I

Comparative of LHB AC III Tier Economy (LWACCNE) and LHB AC III Tier (LWACCN)

S. No.	Parameters		LWACCNE	LWACCN	Remarks
1.	Layout No.		**LE90067**	**LE90039**	
2.	**Overall dimensions of stock (in mm)**				
	Overall length (over coupler) 'mm'		24000	24000	
	Overall length (over Head stock)'mm'		23540	23540	
	Overall width 'mm'		3240	3240	
	Overall Height 'mm'		4250	4250	
	Buffer Height 'mm'		1105	1105	
3.	**Bogie**				
	Design		FIAT	FIAT	Same.
	Centre distance 'mm'		14900	14900	
	Wheel Base 'mm'		2560	2560	
4.	**Suspension system**				
	with Air spring capacity in secondary suspension		160 kN	120 kN	Similar
	Drawings of coil spring in primary suspension	Inner	FIAT Drg. No.1277143	FIAT Drg. No. 1277143	
		Outer	FIAT Drg. No.1277142	FIAT Drg. No. 1277142	
5.	**Axle Load Capacity 't'**		16.25	16.25	Same
6.	**Weight:**				
	Gross weight 't'		56.55	54.56	Almost Same
	Tare weight 't'		46.71	45.6	
7.	**Un-sprung mass't'**		3.1	3.1	Same.
8.	**Brake system**		Axle Mounted Disc Brake System	Axle Mounted Disc Brake System	Same.
	Caliper ratio		**1:2.17**	**1:2.17**	Same.
9.	Height of Centre of Gravity (CG) from rail level 'mm'	Tare	Not exceeding 1830	Not exceeding 1830	Same.
		Gross	Not exceeding 1830	Not exceeding 1830	

(159)

Annexure-A II

#	Group	Item Description	Material	Specification	Fire Properties	Values	Test Method	Remarks/comarision with existing material being fitted in LHB AC coach
1	Insulation	Thermal insulation for under frame and sidewall	Polyol	MDTS-28001 Rev 03	a) Lateral spread flame CFR (Minimum)	R1, HL3, 20 kW/m2	ISO 5658-2 specified in EN 45545-2:2013 (R1)	Same specification is being used for all LHB AC coaches for this item
					b) Heat release rate (Cone calorimeter method) MARHE (Max.)	60 kW/m2	ISO 5660-1	
					c) Smoke generation Ds(4) (Max)	150 dimensionless	ISO 5659-2(T10.01):Specified in EN 45545-2:2013(R1)	
					d) Smoke generation VOF4(Max) Gas analysis in smoke chamber using FTIR technique CITG(4) (Max)	300 min	ISO 5659-2(T10.02):Specified in EN 45545-2:2013(R1)	
					e) Gas analysis in smoke chamber using FTIR technique CITG(4) (Max)	0.75 dimensionless	ISO 5659-2:Specified in EN 45545-2:2013(R1)	
		Resin Bonded Fiber Glass Wool Insulation Laminated On One Side With Heat Resistant Aluminium Foil	Glass Wool	MDTS-207 Rev-05	R1, HL3 as per EN 45545(2)			Same specification is being used for all LHB AC coaches for this item

857671/2021/CEDO SECTION

#	Group	Item Description	Material	Specification	Fire Properties	Values	Test Method	Remarks/comparison with existing material being fitted in LHB AC coach
2	Sound Insulation	Single Component Water Based Sound Deadening/Dampening Spray-Able Paint for LHB Design Coaches	Sound Insulation	MSTS-262 Rev-01	R1, HL3 as per EN 45545(2)			Same specification is being used for all LHB AC coaches for this item
		Two Component PU Based Sound Deadening/Dampening Spray-Able Paint for LHB Design Coaches	Sound Insulation	MDTS-076 Rev - 04	R1, HL3 as per EN 45545(2)			Same specification is being used for all LHB AC coaches for this item
3	Adhesion Promoting Primer	Adhesion Promoter primer	Etch Primer	MDTS-48279 Rev-03	R1, HL3 as per EN 45545(2)			Same specification is being used for all LHB AC coaches for this item
4	End Wall Cover	HPL	HPL Ppanel	MDTS-086 Rev.01	Resistance to spread of flame	Min. Class B	Appendix-11of UIC 564-2	Same specification is being used for all LHB AC coaches for this item
					Deterioration of visibility due to smoke	Min. Class B	Appendix-15 of UIC 564-2	
					Limiting Oxygen Index	Min. 32	IS:13501	
					Heat release rate	R1(HL2) at 50 KW/m2	ISO 56660-1 EN 45545-2:2013	
					Toxicity	Less than 1	NCD:1409	

857671/2021/CEDO SECTION

#	Group	Item Description	Material	Specification	Fire Properties	Values	Test Method	Remarks/comparison with existing material being fitted in LHB AC coach
5	Flooring	Sound Insulation Board	Cork Board	MDTS-075 Rev-03	Resistance to spread of flame as per Appendix-4 of UIC 564-2	Class A		Same specification is being used for all LHB AC coaches for this item
					Deterioration of visibility due to smoke as per Appendix-15 of UIC 564-2	Class A		
					Limiting Oxygen Index as per IS:13501	Min. 28		
					Toxicity as per NCD-1409	Less than 1		
		Fire retardant water based adhesive	Adhesive	MDTS-237 REV. NIL (Rubber based (Solvant base) adhesive make-NEOSOL as per MDTS-237)				Same specification is being used for all LHB AC coaches for this item
		PVC for flooring	PVC	RDSO/2005/CG-12 Rev-01	Resistance to spread of flame	Class A	Appendix-11of UIC 564-2	Same specification is being used for all LHB AC coaches for this item
					Deterioration of visibility due to smoke	Min. Class B	Appendix-15 of UIC 564-2	
					Limiting Oxygen Index	Min. 35	IS:13501	
					Toxicity	Less than 1	NCD:1409	

857671/2021/CEDO SECTION

#	Group	Item Description	Material	Specification	Fire Properties	Values	Test Method	Remarks/comparison with existing material being fitted to LHB AC coach
6	Seat & Berth	Flexible Load bearing Polyurethane Foam	PU foam	MMDTS-19020 Rev-03	S			Upgraded with PU foam conforming to EN45545 R21 HL3 from. Silcon foram or Recron with Specification no RDSO/2013/CG-12 Rev.01 and CK-603 respectively being used in existing LHB AC coaches
		Fire Barrier Cloth		MMDTS-19021 Rev-03	EN45545 ,R21 HL-3			No fire barrier cloth in existing coaches
		Vinyl coated artificial leather	PVC	RDSO-CG-07 Rev-03	Resistance to spread of flame	Min. Class B	Appendix-11 of UIC 564-2	Same to specification no. RDSO-CG-07 Rev-03
					Deterioration of visibility due to smoke	Min. Class B	Appendix-15 of UIC 564-2	
					Limiting Oxygen Index	Min. 28	IS:13501	
					Toxicity	Less than 1	NCD:1409	
		Mettalic Frame	Aluminium	IS 737				Mild steel
		FRP Tub	FRP	MDTS-133				Acc used
		Chair Angles	SS304					Same
		Suspension strap	Synthetic Rubber Coated Nylon Fabric					Metallic with PVC covering
		Corrugated sheet	Aluminium	IS 737				Upgraded with Aluminium from existing Compeg.

857671/2021/CEDO SECTION

#	Group	Item Description	Material	Specification	Fire Properties	Values	Test Method	Remarks/comparision with existing material being fitted in LHB AC coach
7	Paneling	FRP Sidewall panels and associated accessory	FRP	MDTS-133	Resistance to spread of flame	Min. Class B	Appendix-I I of UIC 564-2	Same specification is being used for all LHB AC coaches for this item
					Deterioration of visibility due to smoke	Min. Class B	Appendix-15 of UIC 564-2	
					Limiting Oxygen Index	Min. 28	IS:13501	
					Toxicity	Less than 1	NCD:1409	
		FRP Ceiling sheets and associated accessory	FRP	MDTS-133				
		FRP Non-AC Area Ceiling	FRP	MDTS-133				Compreg with HPL sheet
		Mushroom head fastening device dual lock type 40D		MDTS-167 REVISION 0				Same specification is being used for all LHB AC coaches for this item
		Mettalic Cam Lock	Stainless steel					
		Metallic inserts	Mild Steel					

857671/2021/CEDO SECTION

#	Group	Item Description	Material	Specification	Fire Properties	Values	Test Method	Remarks/comarision with existing material being fitted in LHB AC coach
8	Partition frame & Pillar assy	Honey Comb sandwich	Aluminium	Aluminium as per IS 738 Grade - 31000				Gr 52000 IS:737
		Pillar Assembly	SS 304					SS304
		DGFRP Top sheet	DGFRP	MDTS46303 Rev Nil	Lateral spread flame CFE (Minimum)(critical flux at the extinguishment).	R1, HL3, 20 kW/m2	ISO 5658-2 specified in EN 45545-2:2013 (R1)	Up graded withuse of DGFRP in place of HPL conforming to BN 45545 R1 HL3
					Heat release rate (Cone calorimeter method) MARHE (Max.)	60 kW/m2	ISO 5660-1	
					Smoke generation Ds[4] (Max): Determination of the Optical density by single chamber test	150 dimensionless	ISO 5659-2(T10.01):Specified in EN 45545-2:2013(R1)	
					Determination of the Optical density by single chamber test, Smoke generation VOF4(Max)	300 min	ISO 5659-2(T10.02):Specified in EN 45545-2:2013(R1)	
					Gas analysis in smoke chamber using FTIR technique CITO(4)h(Max)	0.75 dimensionless	ISO 5659-2:Specified in EN 45545-2:2013(R1)	
9	Ladder Assembly	Duct Body	SS304					Not used
		Ladder Steps	SS 304					Metallic with PU cladding
		Diffuser	PC+ABS					Not used
		FRP Cladding	FRP	MDTS 133				Not used
		Channel	SS304					Not used

#	Group	Item Description	Material	Specification	Fire Properties	Values	Test Method	Remarks/comarision with existing material being fitted in LHB AC coach
10	Air Conditionin g	Main Duct	Aluminium	Aluminium IS 737 Grade 31000 H2				Same specification is being used for all LHB AC coaches for this item
		Branch duct	Aluminium	Aluminium and.				Not used
		Self adhesive insulation foam	Melamine	MDTS116 Rev05	Fire Characteristic	S4	DIN 5510-2	Same specification is being used for all LHB AC coaches for this item
						SR2		
						ST2		
		FRP Tub	FRP	MDTS-133		B1	DIN-4102	
11	Passengar amenties	Snack Table	Acrylic Solid surface					Poly carbonate to RCF specification no. MDTS-186
		Coat hook	SS 304					Same specification is being used for all LHB AC coaches
		Luggage rack	Aluminium	IS:737-86 31000H2				SS 304
			Polycarbonate	Sabic Polycarbonate 6mm	Limited Oxegen Index-25%	25	ASTM D 2863	
					General Flammability-UL 94 V0	94 V0	IS:14434 Annex:D	
					Fire Propagation Index-Class-1	class-1	BS:476 Part-6:1988	
		Bottle Holder	PC+ABS					SS304
		Cabin Mirror	Glass					Same
		Layout of lettering inside	Aluminium and cast Vinyle	ICF/MD/SPEC-253 REV.00 and MDTS 156				Same specification is being used for all LHB AC coaches

857671/2021/CEDO SECTION

#	Group	Item Description	Material	Specification	Fire Properties	Values	Test Method	Remarks/comparision with existing material being fitted in LHB AC coach
12	Windows	Glass		Saint Gobain	Not mentioned			Same specification is being used for all LHB AC coaches
		Aluminium Frame	Aluminium 737 Grade W 31000					
		Adhesive	Sikka flex 265	sikka flex.265,Terostat 8590,Total Seal 100, window weld	Not mentioned			
		Roller Blind		MDTS-078	S2-< 30 cm	S2- 18 cm	DIN-5510	Provision of Curtains in existing coaches in place of roller blind
					SR-<50% min	SR2- 21%		
					ST2-Drop Test	ST2-No		
		Rubber Profile						
		Poly Carbonate Sheet	Fire Retardancy	C-K 404	Limited Oxygen Index (LOI)	25	ASTM D 2863	
					General Flammability	VL94 V0	IS: 14434 Annex.-D	
					Fire Propagation Index	Class-I	BS476 Part –6-1988	

#	Group	Item Description	Material	Specification	Fire Properties	Vulues	Test Method	Remarks/comaprision with existing material being fitted in LHB AC coach
13	Doors	Body Side Doors	Stainless Steel AISI 304		The fire retardency test of sub components of the door assembly like FRP,Rubber,rigid phenolic foam etc. is carried out as per appendix-6 of UIC-564(2)-.			SS AISI 304
		Compartment Door	Aluminium to IS:737& IS:733.					Swing door with Aluminium frame and Aluminium sheet
			Stainless Steel AISI 304		Rigid phenolic foam and rubber items shall be tested for fire retardance as per class-B of appendix-8 and appendix-6 respectively of UIC 564-2			Same specification is being used for all LHB AC and Non AC coaches
					Door leaf construction of stainless steel frame with stainless steel sheet (AISI 304) on both sides filled with rigid phenolic foam to IS:13204-1991.			

#	Group	Item Description	Material	Specification	Fire Properties	Values	Test Method	Remarks/comarision with existing material belag fitted in LHB AC coach
		Vestibule Door			As per Para 4.2.5 of UIC 564-2 OR, the end door should be fire prevention door i.e. in case of fire, spreading of fire, smoke and heat should be avoided for 05 minutes, so that fire is prevented from developing in adjacent coach. Fire barrier frame composed ofstainless steel profile should house special bars of silicate calcium			
14	Vestibule	Vestibule		RDSO_SPEC_No_2007_CG_05_Rev_Nil	Test for resistance to spread of flame			Same specification is being usede for all LHB AC coaches
					Deteroration to visibility due to smoke			
					Limiting Oxegan Index			
					Toxicity			
15	Elctrical Cabinet	Cabinet		SS-304				Same SS304
16	Entrance Hand Rail	Hand Rail		SS 304				Same SS304
17	Fleet Graphic		Cast Vinyle	RDSO/2010/CG-08	UIC-564-2 OR Appendix-12	Class B		Same specification is being used for all LHB AC coaches

#	Group	Item Description	Material	Specification	Fire Properties	Values	Test Method	Remarks/comparision with existing material being fitted in LHB AC coach
18	Lavatory Module	Lavatory Walls ,Roof and Floor	FRP	MDTS-133				Same specification is being used for all LHB AC coaches
			SS Items	AISI 304,316 etc	-			
			Rubber		Fire retardancy not mentioned			
			EPDM	MDTS-080	Fire retardancy not mentioned			
		Lavatory Floor	HARD PVC Foam	MDTS-096	Fire retardancy not mentioned			
			Special correndum for floor	MDTS-092(AL2O3)	Fire retardancy not mentioned			
			Composite pipes(RE-AL-PE)	IS-15450	Fire retardancy not mentioned			
			Aluminum (Lav. Door)	IS-737	--			
		Sanitary Pipe	PVC		Spec not mentioned			
			Side filling connector(TPU)	MDTS-203				
		Lavatory Door	Rigid phenolic foam	IS-13204	Clause A.1.6			
			Aluminium sheet	IS 737	Fire retardancy not mentioned			

857671/2021/CEDO SECTION

#	Group	Item Description	Material	Specification	Fire Propertice	Values	Test Method	Remarks/comaridon with existing material being fitted in LHB AC coach
19	Automatic fire/Smoke detection & alarm system	Automatic fire/Smoke detection & alarm system		RDSO/2008/CG-04 Rev.01				Being fitted in all LHB AC coaches with same specification having provision of smoke/fire detection, alarm system & brake application for safe evacuation of passengmers
20	Fire extinguishers	Extinguisher	QPC-02nos	IS-15683-06				Being fitted in all LHB AC coaches with same specification
21	Roof, Underframe, Sidewall, Endwall	Wiring	Electron beam irradiated cables.	RDSO Spec. no. ELRS/SPEC/ELC/0019 (latest)	HALOGEN FREE, Fire retardent, LOW TOXICITY CABLES TO PREVENT PROPAGATION OF FIRE	Tracking resistence≤1.5mA at BV≥10KV (4-16sqmm upto 750V) & above 750 & upto 1.8kv/3.0kv (25-95sqmm) ≤2mA at BV≥25KV	ASTM-D-3677-83 IS: 1081D ASTMG53-1984 & IEC332-1	Same specification is being used for all LHB AC coaches for this item
		Light	POLYCARBONATE	RDSO/PE/SPEC/TL/0091 REV-1	Conformingtto UL94, V0	V0		
		Conduits & Endfittings	POLYAMIDE (PA6)	RDSO/PE/SPEC/AC/0138 REV-1	HALOGEN PHOSPHORUS AND CADMIUM FREE CONFORMING TO UL94, V0.	NFF 16-101 & 102	IEC:61386-1 & 23 IEC61373 IEC 60529, 60423 DIN40430	

857671/2021/CEDO SECTION

N	Group	Item Description	Material	Specification	Fire Properties	Values	Test Method	Remarks/comarision with existing material being fitted in LHB AC coach
		CAGE CLAMP TYPE CONNECTORS	POLYAMIDE (PA6.6)	AS PER RELEVENT PART NO.	Conforming to UL94, V0	V0 GRADE		
		CABLE TIE	POLYAMIDE (PA6.6)	AS PER RELEVENT PART NO.	Conforming to UL94, V2	V2 GRADE		
		INSULATION TAPE	FRLT	AS PER RELEVENT PART NO.	RESISTANT TO FLAME PROAGATION AS PER CL. 6 OF IS:7809 INSULATION CLASS	UL510 CLASS A	IS:7809	
		PVC RIGID CONDUIT	PVC	IS:9537 (PART-3) CL. 5.1	RESISTANT TO BURNING AS PER CL. 11 OF IS:9537	ISI MARK	IS:9537	
22	Switch Board Cabinet	ENCLOSURE	SS 304	RDSO/PE/SPEC/AC/0200	FIRE STANDARD TO EN45545 WITH HAZARDS LEVEL HL2 FOR FIRE DETECTION AND SUPRESSION CONDENSED AEROSOL FIRE EXTINGUISHERS HAVE BEEN PROVIDED IN ONBOARD PANEL	IP65	EN45545	As per UL 94,V2
23	RMPU	HOUSING	SS 304	RDSO/PE SPEC/AC/0061 REV-1 TO SKED 773			ASTM-D-3677-88 IS: 10810 PART-7& 11 ASTMG53-1984	
		POWER CABLES	Electron beam irradiated cables.	RDSO Spec. no. ELRS/SPEC/ELC/0019 (latest)	HALOGEN FREE, Fire retardant , LOW TOXICITY CABLES TO PREVENT PROPAGATION OF FIRE			
		CONECTOR	HARTING TYPE	AS PER RELEVENT PART NO.	FIRE PROOF	IP67		
24	Transforme	HOUSING	SS 304	RDSO/PE/SPEC/AC/0080 REV.-1	IP67, CLASS OF INSULATION-H	IP67	IS:13730 PART-13 & 29	

857671/2021/CEDO SECTION

#	Group	Item Description	Material	Specification	Fire Properties	Values	Test Method	Remarks/comarision with existing material being fitted in LHB AC coach
		TERMINAL BOARD	FRP/SMC	CC71217	FIRE RETARDENT		ASTM D792 , 638 790, 795, 256, 570	
25	ZS Coupling	HOUSING	ALUMINIUM	RDSO/PE/SPEC/AC/ 0177	IP65	IP65	IEC 60529 , 61373	
		TERMINAL BLOCK	FRP/SMC		FIRE RETARDENT			
		Conduits & Endfittings	POLYAMIDE (PA6)	RDSO/PE/SPEC/AC/ 0138 REV-1	HALOGEN PHOSPHORUS AND CADMIUM FREE CONFORMING TO UL94, V0.	NFF 16-101 & 102		
26	Battery Charger	HOUSING	SS 304	RDSO/PE/SPEC/AC/ 0183 REV.-1	IP65	IP65	EN45545	
		TERMINAL BLOCK	POLYAMIDE (PA6.6)	AS PER RELEVENT PART NO.	Conforming to UL94, V0	V0		
		GASKET	NEOPRENE		FIRE RETARDENT LOW SMOKE HALOGEN FREE UL94 V0	V0		
27	Battery	120AH 110V VRLA BATTERY	PPCP/ABS	RDSO/PE/SPEC/AC/ 0009 REV-2	CONTAINER MATERIAL FIRE RETARDENT V2 GRADE	V2 GARDE	IS:1146 -81 CL 7	
28	Capacitor Bank	HOUSING	SS 304	EDML130				
		CLEAT ARRGT.	FRP/SMC	ICF/ELEC/862	FIRE RETARDENT			
		CAPACITOR	ALUMINIUM	CONFORMING TO IS:13340	AS PER IS			

(173)

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड) (Railway Board)

No. 2020/CEDO/SR/25 New Delhi, dated 26.03.2021

The Director General,
RDSO,
Manak Nagar, -226011.

The General Manager,
All Indian Railways

Sub:- ***Corrigendum*** to Board's letter dated 27.01.2021 regarding introduction of BG Bogie Open Wagon type 'BOXNS' having maximum axle load of 25T over the routes to be identified by GM of Zonal Railways and notified by Railway Board at a maximum speed up to 85 kmph in empty and 45 kmph in loaded condition, by Zonal Railways on Indian Railway track

Ref:- Railway Bd's letter No.2020/CEDO/SR/25, dated 27.01.2021

Please refer to Board's letter of even number, dated 27.01.2021 wherein sanction of Ministry of Railways, Railway Board was communicated for introduction of BG Bogie Open Wagon type 'BOXNS' having maximum axle load of 25T over the routes to be identified by GM of Zonal Railways and notified by Railway Board, at a maximum speed up to 85 kmph in empty and 45 kmph in loaded condition, by Zonal Railways on Indian Railway track.

Inadvertently in the letter under reference above, RDSO's '*Final Speed Certificate (FSC) No. MW/SPD/BG/BOXNHL 25T, dated 30.10.2015 read along with its Amendment no. issued vide RDSO's letter no. MW/SPD/BG/BOXNS, dated 24.08.2016'* has been mentioned instead of '*RDSO's Final Speed Certificate (FSC) No. MW/SPD/BG/BOXNS, dated 24.08.2016*'.

In view of above, RDSO Final Speed Certificate (FSC) mentioned in letter under reference above, should be read as '*RDSO's Final Speed Certificate (FSC) No. MW/SPD/BG/BOXNS, dated 24.08.2016'*.

Issue pls
26/03/2021

26/3/21

Prem Sagar
26/03/21
ओ/C (प्रेम सागर गुप्ता)
कार्यकारी निदेशक सिविल इंजी. (जी) /रेलवे बोर्ड
[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow
2. Executive Director (Standards)Motive Power, RDSO, Lucknow
3. Executive Director ME(Fr.), Railway Board

Prem Sagar
26/03/21
ओ/C (प्रेम सागर गुप्ता)
कृते, सचिव रेलवे बोर्ड

(174)

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड) (Railway Board)

No. [illegible] 2021/CEDO/SR/11(MEMU-BHEL) New Delhi, Dated 19.03.2021

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub: Introduction of 8/12-car formation MEMU stock fitted with on-board 3-phase IGBT based propulsion system and pneumatic suspension in secondary stage manufactured by M/s BEML to Drawing No. GR-3826 (MEMU/DMC/CS/BEHL) & GR-3999 (MEMU/TC/CS/BEHL), up to maximum speed of 110 kmph, over Indian Railway

Ref : (i) CCRS;s letter No. Q.12011@16@2020&21&r-fo , dated 16.03.2021
(ii) RDSO's letter No. MC/MEMU/3-phase/BEML, Dated 21.01.2021

Chief Commissioner of Railway Safety, Lucknow; while forwarding the case for the sanction of the Railway Board for introduction of 8/12-car formation MEMU stock fitted with on-board 3-phase IGBT based propulsion system and pneumatic suspension in secondary stage manufactured by M/s BEML to Drawing No. GR-3826 (DMC) & GR-3999 (TC) up to a maximum speed of 110 kmph, over Indian Railway, has recommended certain measures to be taken before introduction of the above rolling stocks, reproduced as under:

a. Necessary changes in the TCMS (Train Control Management System) software should be made for not allowing the traction (provision of traction cut-off) with indication to motorman in case more than 50% of the bogies are in isolated condition.

b. Provision of smoke detectors should be made inside HT compartment & electrical cubicles. In case of smoke, suitable audio/visual alarm should appear on the driver's desk for early detection of smoke.

c. Suitable Boards/ stickers showing sequence of operation before entering into HT room should be displayed on the door of the HT compartment

d. Stainless steel pipes of BP, MR, air bellow, auxiliary reservoir, brake cylinder, compressor etc. should be color coded for easy identification by maintenance staff.

e. Ventilator type grill cover provided over junction box should be closed to protect dust ingress as well as preventing passengers from dumping the garbage

f. Metallic grommet should be provided in alarm chains.

g. A large one piece end wall panelhas been provided in the DMC. As this will occupy a lot of passenger space when opened, it should, therefore, be replaced by two or more small panels.

h. All information boards/stickers in passenger area are only in English/Hindi. Trilingual Boards/stickers in Regional language, Hindi, English should be provided wherever required.

i. Passenger Information Display Boards inside the DMC & TC may injure the passenger standing near it. They should be suitably modified so as not to cause any injury to the passenger.

j. Florescent/retro reflective strips should be provided in the aisle area of TC/DMC to guide the passenger during evacuation in case of black out due to power failure caused by accident/derailment.

k. There were sharp edges in metallic moulding of seats. The same should be removed.

l. Provision should be made for 'Divyangjan' and Senior Citizens as per prescribed norms. Trilingual (Local language, Hindi, English) stickers indicating the same should be pasted at appropriate locations.

m. Provision of Volume Control in PA/PIS should be provided from both the cabs.

n. In case of ACP alarm bell in cab rings continuously. Provision should be made to manually reset the passenger alarm bell by the driver.

o. Pre- recorded Passenger safety announcement in three languages (Regional, Hindi & English) should be made during run to sensitize passengers about personal safety norms to be observed during travel

p. Training must be imparted to crew on following aspects

   i. To uncouple the semi-permanent Schaku coupler in about 15 min in case of emergency. Necessary tools required for this operation must be made a part of driver/guard tool kit.

   ii. Sequence of operations to be performed before entering into HT room

   iii. Action to be taken in case of Passenger Alarm chain pulling as per extant norms keeping in view the emergencies like fire etc. in which immediate action is required for passenger safety.

s. LED display board is presently available on the top side of the MEMU rake just above cab front view glass. In case of defective LED unit or otherwise, it will create inconvenience to passengers. To avoid this situation, provision of manual display system also should be made available in the MEMU DMC.

t. Detailed Maintenance Manual having coloured photograph should be made available to maintenance staff

RDSO is requested to examine the issues involved and submit comments at the earliest.

DA: as above.

Prem Sagar
19/03/21

(प्रेमसागरगुप्ता)
कार्यकारीनिदेशकसिविलइंजी.(जी)/रेलवेबोर्ड
[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

Copy forwarded for information to :

1. Executive Director (Standards) Motive Power, RDSO, Lucknow
2. Executive Director EE(G), Railway Board

848854/2021/CEDO SECTION

भारत सरकार
नागर विमानन मंत्रालय
(रेल सुरक्षा आयोग)
GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

फोन/Ph.: 0522-2232087, 2233103 (P&T)
N.E.Rly. 31-140, N.Rly. 23-280
फैक्स/Fax-0522-2233095, 2233087
E-mail: chiefcom@rediffmail.com

पूर्वोत्तर रेलवे, मं.रे.सु. कार्यालय परिसर
16, अशोक मार्ग, लखनऊ-226001

N.E. Railway, DRM OFFICE CAMPUS
16, Ashok Marg, Lucknow-226 001

संख्या–Q.12011/16/2020–21–त.वि

दिनांक–16.03.2021

सेवा में,

सचिव (सिविल इंजी.)
रेल मंत्रालय (रेलवे बोर्ड)
रेल भवन
नई दिल्ली

[ध्यानार्थ EDCE(G)]

विषय: Introduction of 8/12-car formation MEMU stock fitted with on-board 3-phase IGBT based propulsion system and pneumatic suspension in secondary stage manufactured by M/s BEML to Drg No. GR-3826(DMC) & GR-3999(TC) up to a maximum speed of 110 kmph over Indian Railways on track maintained as per provisions of Indian Railways Permanent Way Manual, June-2020, containing track geometry standards under Para 522

संदर्भ: (i) DG/RDSO's letter No. MC/MEMU/3-phase/BEML, Dated 21.01.2021
(ii) RDSO's Final Speed Certificate (FSC) no. MC/MEMU/3-phase/BEML, Dated 20.01.2021
(iii) This office's letter of even no. Dated 03.02.2021
(iv) RDSO's letter No. MC/MEMU/3-phase/BEML, Dated 26.02.2021

Vide reference (i), RDSO has approached this office seeking Railway Board's sanction for introduction of subject rolling stock up to a maximum speed of 110 kmph over Indian Railways on track maintained as per provisions of Indian Railways Permanent Way Manual, June-2020 containing track geometry standards under Para 522 for use by Railways on the basis of RDSO's Final Speed Certificate mentioned under reference (ii). Vide reference (iii) [copy enclosed], RDSO was asked to furnish certain clarifications on the subject case. Clarifications on the issues were given by RDSO to this office vide reference (iv) [copy enclosed].

Unique Transportation Code, Layout Drawing No., Tare weight, Gross Weight & Max. Axle Load of proposed coaches are as under:

SN	Type of coach	Unique Transportation Code	Layout Drawing No.	Operational Axle Load	Tare Weight	Gross Weight
1	Driving Motor Coach	MEMU/DMC/CS/BEML	GR-3826	18.35 t	60.99 t	73.41 t
2	Trailer Coach	MEMU/TC/CS/BEML	GR-3999	14.00 t	36.50 t	56.60 t

Proposed train formation of 8-car formation MEMU stock is: DMC+TC+ TC+ TC+ TC+ TC+ TC+DMC and for 12-Car formation is DMC+TC+ TC+ TC+ TC+ TC+ TC+DMC+ TC+ TC+ TC+DMC.

Case has been examined by this office and is found to be in order. Accordingly, the same is being forwarded to Railway Board for necessary action with the recommendation for the sanction of the Central Government for operation of **8/12-car formation MEMU stock fitted with on-board 3-phase IGBT based propulsion system and pneumatic suspension in secondary stage manufactured by M/s BEML**, up to a maximum speed of **110 [ONE HUNDRED TEN]** kmph over Indian Railways on track maintained as per provisions of Indian Railways Permanent Way Manual, June-2020, containing track geometry standards under Para 522 with conditions mentioned in **Annexure-1**.

Observations from CCRS Inspection Report about 'Measures to be taken before introduction of 8/12-car formation MEMU rolling stock having 3-phase on-board IGBT based propulsion system' are enclosed as **Annexure-2.** The compliance of the same should be submitted to the Commission.

Further, 'Measures for future improvement of the subject rolling stock' are attached as **Annexure-3.**

This letter is issued with the approval of CCRS.

16/3/2021
(अहमद नदीम सिद्दीकी)
उप रेल सुरक्षा आयुक्त (यांत्रिक)
कृते मुख्य रेल सुरक्षा आयुक्त

संलग्नक: यथोक्त
प्रतिलिपि:

महानिदेशक (सवारी डिब्बा)
सवारी डिब्बा निदेशालय (एनेक्सी–1),
अनुसंधान, अभिकल्प एवं मानक संगठन,
मानक नगर, लखनऊ–226011

848854/2021/CEDO SECTION

[of GCRS Office's Letter No. Q.12011/16/2020-21-RTS, Dated 16.03.2021]

Conditions to be ensured by the Railway for operation of the 8/12-car formation MEMU stock fitted with on-board 3-phase IGBT based propulsion system and pneumatic suspension in secondary stage manufactured by M/s BEML, up to a maximum speed of 110 kmph over Indian Railways on track maintained as per provisions of Indian Railways Permanent Way Manual, June-2020, containing track geometry standards under Para 522

1. Observance of all conditions laid down in RDSO's Final Speed Certificate No. MC/MEMU/3-phase/BEML, Dated 21.01.2021, **Remarks of the Railway against each para of this Speed Certificate shall be submitted to the Commission before the start of actual operation of rolling stock.**
2. As per para 6.1.2 of Revised Policy Circular-6 Dated 31.10.2018, trains will be introduced in the sections at the speeds as per provision of General Rules 1976-Rule 4.08 1(a).
3. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.
4. Maximum speed of the 8-car formation MEMU shall be restricted as per speeds proposed therein or the maximum permissible speed of the section, whichever is less.
5. While running through a station, speed of the train shall be restricted to the maximum permissible speed as per standard of interlocking provided at the station.
6. Location of bridges on which speed restrictions have been imposed shall be notified by the Railways and incorporated in the working timetable.
7. Railway shall comply all the stipulations mentioned in EIG (Northern Railway) Sanction no. 232-Elect/EMU/3/7-BEML, Dated 25.02.2021 for 12- Car formation MEMU rake. All electrical equipment shall be maintained in good condition and necessary safety precautions shall be taken by Railways.
8. Before starting the operation, the PCME of the concerned Railway shall certify the track worthiness and safety of the rolling stock and shall also ensure proper maintenance of the rolling stock.
9. Brakes of the rolling stock shall be in good working order during the operation.
10. In case air spring gets deflated, the speed shall be limited to 60 kmph. This has to be manually implemented by the driver.

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Annexure-2/Page 1 of 1

[of CCRS Office's Letter No. Q.12011/16/2020-21-mfg., Dated 16.03.2021]

Measures to be taken before introduction of 8/12-car formation MEMU rolling stock having 3-phase on-board IGBT based propulsion system

Statutory inspection of the rolling stock by the CCRS was carried out on 13.03.2021 at Delhi Safdarjung Station, Northern Railway. Para 2 of CCRS Inspection Report suggests about following measures for improvement of inspected rolling stock. Extract of this para is given below for taking necessary action for its implementation:

a. Necessary changes in the TCMS (Train Control Management System) software should be made for not allowing the traction (provision of traction cut-off) with indication to motorman in case more than 50% of the bogies are in isolated condition.

b. Provision of smoke detectors should be made inside HT compartment & electrical cubicles. In case of smoke, suitable audio/visual alarm should appear on the driver's desk for early detection of smoke.

c. Suitable Boards/ stickers showing sequence of operation before entering into HT room should be displayed on the door of the HT compartment

d. Stainless steel pipes of BP, MR, air bellow, auxiliary reservoir, brake cylinder, compressor etc. should be color coded for easy identification by maintenance staff.

e. Ventilator type grill cover provided over junction box should be closed to protect dust ingress as well as preventing passengers from dumping the garbage

f. Metallic grommet should be provided in alarm chains.

g. A large one piece end wall panel has been provided in the DMC. As this will occupy a lot of passenger space when opened, it should, therefore, be replaced by two or more small panels.

h. All information boards/stickers in passenger area are only in English/Hindi. Tri-lingual Boards/stickers in Regional language, Hindi, English should be provided wherever required.

i. Passenger Information Display Boards inside the DMC & TC may injure the passenger standing near it. They should be suitably modified so as not to cause any injury to the passenger.

j. Florescent/retro reflective strips should be provided in the aisle area of TC/DMC to guide the passenger during evacuation in case of black out due to power failure caused by accident/derailment.

k. There were sharp edges in metallic moulding of seats. The same should be removed.

l. Provision should be made for 'Divyangjan' and Senior Citizens as per prescribed norms. Trilingual (Local language, Hindi, English) stickers indicating the same should be pasted at appropriate locations.

m. Provision of Volume Control in PA/PIS should be provided from both the cabs.

n. In case of ACP alarm bell in cab rings continuously. Provision should be made to manually reset the passenger alarm bell by the driver.

o. Pre- recorded Passenger safety announcement in three languages (Regional, Hindi & English) should be made during run to sensitize passengers about personal safety norms to be observed during travel

p. Training must be imparted to crew on following aspects

   (i) To uncouple the semi-permanent Schaku coupler in about 15 min in case of emergency. Necessary tools required for this operation must be made a part of driver/guard tool kit.

   (ii) Sequence of operations to be performed before entering into HT room

   (iii) Action to be taken in case of Passenger Alarm chain pulling as per extant norms keeping in view the emergencies like fire etc. in which immediate action is required for passenger safety.

q. LED display board is presently available on the top side of the MEMU rake just above cab front view glass. In case of defective LED unit or otherwise, it will create inconvenience to passengers. To avoid this situation, provision of manual display system also should be made available in the MEMU DMC.

r. Detailed Maintenance Manual having coloured photograph should be made available to maintenance staff

***

848854/2021/CEDO SECTION

Annexure-3/Page 1 of 1

[of CCRS Office's Letter No. Q.12011/16/2020-21-II/a, Dated 16.03.2021]

Measures for future improvement of the subject rolling stock

Statutory Inspection of the rolling stock by the CCRS was carried out on 13.03.2021 at Delhi Safdarjung Station, Northern Railway. Para 3 of CCRS Inspection Report suggests about following measures for future improvement of the coach. Extract of this para is given below for taking necessary action by the Railway for its implementation:

a. Presently, these coaches are made from Corten Steel (IRSM-41). Corrosion resistance structural steel. In future, they may be replaced by Stainless Steel coaches (IRSM-44)

b. **On 13.03.2021 a fire broke out in C-5 coach of Dehradun Shatabdi Exp (Train no 02017) near Kansrao in Uttarakhand. Due to provision of aspiration type smoke & fire detection system called VESDA (Very Early Smoke Detector Apparatus) system in the coach, smoke was detected very early and emergency brakes were applied. All passengers were safely evacuated and no injuries/casualties were reported. In view of the above, a suitable Fire & Smoke Detection System, as per EN 45545-1-2013, should be provided in the passenger areas of the rakes to avoid any loss of life in case of fire incident. In light of this unusual, passenger alarm chain pulling system and action to be taken by crew (in case emergency brakes are not automatically applied) should be reviewed.**

c. Feasibility of completely sealed vestibule area like that of Train-18 may be explored in future designs

d. Necessary provision should be made to record the conversation between motorman & guard and announcement done by motorman through PA/PIS for reference during enquiry of any unusual incident/accident

e. CCTV cameras should be installed to capture live feed from inside as well as outside the coach

f. Furnishing of coaches should be similar to presently operational LHB coaches

g. Modular stainless steel toilets like those in LHB coaches should be provided

h. Mobile charging point should be provided as per prescribed provisions

i. Ergonomically designed driver's cabs having standard layout across all types of MEMUs may be provided in the rakes produced in future for driver's comfort.

j. It was informed that rollback protection does not work in case holding brakes are disabled. Ideally, rollback protection should also act as backup for holding brakes failure. Therefore, rollback protection should be independent of holding brakes.

k. Chairs provided in Driver's Cab need to be redesigned to maximize the space available inside the cab. Feasibility of providing the foldable chairs may be explored

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848854/2021/CEDO SECTION

INSPECTION REPORT OF 12-CAR FORMATION MEMU ROLLING STOCK HAVING 3-PHASE ONBOARD IGBT BASED PROPULSION SYSTEM AND PNEUMATIC SUSPENSION IN SECONDARY STAGE MANUFACTURED BY M/s BEML AS PER BEML Drg No GR-3826(DMC) & GR-3999(TC) UP TO MAXIMUM OPERATING SPEED OF 110KMPH OVER INDIAN RAILWAYS

1. Director General / RDSO vide letter no. MC/MEMU/3-Phase /BEML dated 21.01.2021 submitted a proposal for introduction of 8/12-car formation MEMU rolling stock having 3-phase on-board IGBT based propulsion system and pneumatic suspension in secondary stage manufactured by M/s BEML as per BEML Drg no GR-3826(DMC) &GR-3999(TC)up to a maximum operating speed of 110 kmph for use by Railways.

   Team of officers consisting of Dy.CRS/Electrical/LKO, CSTE/Safety/NDLS, Dy.CRS/Mechanical/LKO accompanied by ED/Carriage/RDSO, ED/PS&EMU/RDSO and other officials of Northern Railway, RDSO &BEML conducted the speed trial of the subject rolling stock in GZB-SKQ section of NR and NCR from 1300 hrs. to 1500 hrs. of 13.03.2021. Various tests as listed in Annexure 1 were also conducted in between GZB-SKQ and SKQ-DSJ section of NR & NCR.

   After the above mentioned trials and tests the detailed inspection of subject rolling stock was conducted in terms of provisions of Section27 of The Railways Act, 1989at Safdarjung station (DSJ), New Delhi, Northern Railway on 13.03.2021.

   Based on the inspection of rolling stock, speed trial, and the documents submitted by the RDSO, the subject rolling stock is recommended for sanction of Central Govt subject to compliance of the conditions as mentioned in Para 2 & 3 below :

2. **Measures to be taken before introduction of 8/12-car formation MEMU rolling stock having 3-phase on-board IGBT based propulsion system:**

   a. Necessary changes in the TCMS (Train Control Management System) software should be made for not allowing the traction (provision of traction cut-off) with indication to motorman in case more than 50% of the bogies are in isolated condition.
   b. Provision of smoke detectors should be made inside HT compartment & electrical cubicles. In case of smoke, suitable audio/visual alarm should appear on the driver's desk for early detection of smoke
   c. Suitable Boards/ stickers showing sequence of operation before entering into HT room should be displayed on the door of the HT compartment
   d. Stainless steel pipes of BP, MR, air bellow, auxiliary reservoir, brake cylinder, compressor(Photograph No.9) etc. should be color coded for easy identification by maintenance staff
   e. Ventilator type grill cover provided over junction box (Photograph No.12) should be closed to protect dust ingress as well as preventing passengers from dumping the garbage
   f. Metallic grommet should be provided in alarm chains (Photograph No. 7).
   g. A large one piece end wall panel (Photograph No.14) has been provided in the DMC. As this will occupy a lot of passenger space when opened. It should, therefore, be replaced by two or more small panels.
   h. All information boards/stickers in passenger area are only in English/Hindi. Tri-lingual Boards/stickers in Regional language, Hindi, English should be provided wherever required.

16/2/2021

i. Passenger Information Display Boards (Photograph No.6) inside the DMC & TC may injure the passenger standing near it. They should be suitably modified so as not to cause any injury to the passenger.

j. Floresoent/retro reflective strips should be provided in the aisle area of TC/DMC to guide the passenger during evacuation in case of black out due to power failure caused by accident/derailment.

k. There were sharp edges in metallic moulding of seats (Photograph No.13). The same should be removed.

l. Provision should be made for 'Divyangjan' and senior citizen as per prescribed norms. Trilingual (Local language, Hindi, English) stickers indicating the same should be pasted at appropriate locations.

m. Provision of Volume Control in PA/PIS should be provided from both the cabs.

n. In case of ACP alarm bell in cab rings continuously. Provision should be made to manually reset the passenger alarm bell by the driver.

o. Pre- recorded Passenger safety announcement in three languages(Regional, Hindi & English) should be made during run to sensitize passengers about personal safety norms to be observed during travel

p. Training must be imparted to crew on following aspects
   (i) To uncouple the semi-permanent Schaku coupler in about 15 min in case of emergency Necessary tools required for this operation must be made a part of driver/guard tool kit.
   (ii) Sequence of operations to be performed before entering into HT room
   (iii) Action to be taken in case of Passenger Alarm chain pulling as per extant norms keeping in view the emergencies like fire etc. in which immediate action is required for passenger safety.

q. LED display board is presently available on the top side of the MEMU rake(photograph No.2) just above cab front view glass. In case of defective LED unit or otherwise, it will create inconvenience to passengers. To avoid this situation, provision of manual display system also should be made available in the MEMU DMC.

r. Detailed Maintenance Manual having coloured photograph should be made available to maintenance staff

3. **Measures for future improvement of the subject rolling stock:**

a. Presently, these coaches are made from Corten Steel (IRSM-41).Corrosion resistance structural steel. In future, they may be replaced by Stainless Steel coaches(IRSM-44)

b. On 13.03.2021 a fire broke out in C-5 coach of Dehradun Shatabdi Exp (Train no 02017) near Kansrao in Uttarakhand. Due to provision of aspiration type smoke & fire detection system called VESDA (Very Early Smoke Detector Apparatus) system in the coach, smoke was detected very early and emergency brakes were applied. All passengers were safely evacuated and no injuries/casualties were reported. In view of the above, a suitable Fire & Smoke Detection System, as per EN 45545-1-2013, should be provided in the passenger areas of the rakes to avoid any loss of life in case of fire incident. In light of this unusual, passenger alarm chain pulling system and action to be taken by crew (in case emergency brakes are not automatically applied) should be reviewed.

c. Feasibility of completely sealed vestibule area like that of Train-18 may be explored in future designs

16/3/2021

d. Necessary provision should be made to record the conversation between motorman & guard and announcement done by motorman through PA/PIS for reference during enquiry of any unusual incident/accident
e. CCTV cameras should be installed to capture live feed from inside as well as outside the coach
f. Furnishing of coaches should be similar to presently operational LHB coaches
g. Modular stainless steel toilets like those in LHB coaches should be provided
h. Mobile charging point should be provided as per prescribed provisions
i. Ergonomically designed driver's cabs having standard layout across all types of MEMUs may be provided in the rakes produced in future for driver's comfort.
j. It was informed that rollback protection does not work in case holding brakes are disabled. Ideally, rollback protection should also act as backup for holding brakes failure. Therefore, rollback protection should be independent of holding brakes.
k. Chairs provided in Driver's Cab need to be redesigned to maximize the space available inside the cab. Feasibility of providing the foldable chairs may be explored

4. **Details of 8/12 car formation MEMU stock having 3-phase on-board mounted IGBT based propulsion system:**
   a. Unique Transportation Code of the Driving Motor Coach (DMC) and Trailer Coach (TC) of MEMU rolling stock are MEMU/DMC/CS/BEML and MEMU/TC/CS/BEML respectively.
   b. DMC and TC of MEMU rolling stock have been manufactured by M/s BEML as per BEML's layout drawing no. GR-3826 (for DMC) & GR-3999 (for TC) having max. axle load of 18.35t & 14.00t respectively.
   c. MEMU rolling stock is a bi-directional 12-car rake formation consisting of three DMCs and nine TCs in which two DMCs are on either side and one DMC & nine TCs are in between two DMCs.
   d. The mode of traction of the vehicle is self-propelled 3-Phase IGBT based propulsion system.
   e. Complete 12car Rake formation has been provided with vestibules for easy movement of passengers during run and in case of emergency.
   f. The body of shell of coaches is made up of Corrosion resistance Structural Steel.

5. **Coupler:**
   The coaches are fitted with semi-permanent Schaku couplers.

6. **Suspension:**
   Primary Suspension -Helical coil spring
   Secondary Suspension-Pneumatic air springs (140 kN).

7. **Power and propulsion system:**
   On – board 12 car Rake of MEMU is powered by 3-Phase IGBT based AC-AC propulsion system. It is made up of 3 basic units with each unit of 4 cars each. Configuration of each basic unit is DMC-TC-TC-TC. Each basic unit has one motor car and 3 trailer cars. Overall, MEMU rake has 25% powering. DMC is leading car in each basic unit. Continuous power rating of each DMC provided with 4 traction motor is 247x4=988kW. Total continuous power rating of 12 car formation having 3 DMC is 3x988=2964kw.

The maximum tractive effort per axle as mentioned in FSC is 3.35t

IGB

8. **Brake System:**

MEMU is equipped with Electro Pneumatic (EP) air Brake system having twin pipe with "s_ id by" auto brake arrangement (purely pneumatic). Brake system consist of following:

i. EP Service & Emergency Brake
ii. Auto Brake-Service & Emergency Brake through BP drop.
iii. Parking brake

i. Electro Pneumatic Service Brake & Emergency Brake: MEMU has provision for applying service brakes & emergency brake through Electro pneumatically operated mechanism with clasp type brakes having composite brake block. The service & Emergency Brakes are applied on all wheels through a graduated hand control valve using Master controller on driver's desk.

ii. Auto Brake- Service Brake & Emergency Brake: MEMU has provision for applying service Brake & emergency brake through pneumatically operated mechanism. The braking system has four distinct positions i.e. release, minimum reduction, full service and emergency.

iii. Parking Brake (PB): Two parking brakes per bogie are provided on diagonally opposite wheels in DMC. Parking brake is operative when air is drained out from parking brake cylinder and applied by heavy coiled spring. Parking brake is released once the air pressure is fed to the parking brake cylinder. It is a failsafe design.

All types of brakes mentioned above were checked during the inspection and found working satisfactorily.

9. Deadman's Device & Guard Emergency brake valve are provided in driver cabs of DMC.

10. **Safety fittings:**

i. Twin beam headlights are provided at both ends of MEMU. Two numbers of LED type Aux. Head lights and tail lights are provided at each end of MEMU.
ii. MEMU is equipped with a speedometer in each cab. The speed is indicated and also recorded in the recorder and can be download on external memory for investigation etc.
iii. Flasher light is provided at both ends of the MEMU.
iv. Two wipers and one foot operated horn are provided.
v. 7 ACP points in each DMC and 8 ACP points in each TC are provided.
vi. VCB along with earthing switch and HT room interlocking system are provided for safety.
vii. Protection plate/guards are provided for Air spring linkages, drain cocks of air reservoirs.

Working of all lights, wipers and horns and availability of other items mentioned above were checked and found ok.

11. **Driving Cab:**

Driving cabs are provided on both ends of MEMU. The controls in both cabs are the same. Cab occupation feature has been provided to prevent unauthorized operation from other cab. *Signal visibility from either side of the cab is found to be good.*

The indications for various alarms/parameters are available on driver's desk in each cab. These indications cover the following.

i. Brake Pipe / Feed Pipe pressure gauge
ii. Brake Cylinder Pressure gauge
iii. Speed Indicator cum Recorder

iv. TCMS Display with HMI
v. Battery voltage test
vi. Audio-Visual
vii. Flasher Light
viii. Parking brake release
ix. Parking brake Apply
x. Head light failure
xi. Single unit operation
xii. Train Control Network (TCN) failure
xiii. Emergency brake
xiv. Emergency OFF
xv. Min. 1 Brake applied
xvi. Not all Panto UP
xvii. Not all MC ON
xviii. Min 1 Air suspension Failed
xix. Rescue Drive Mode (RDM) Active
xx. Min 1 Panto UP (applicable for Rescue Drive Mode only)
xxi. Min 1 MC ON (applicable for Rescue Drive Mode only)

12. **Doors:**

All doors remain in the floor level of the vehicle. Double leaf mild steel sliding doors with user friendly lock and latch are provided in the middle of the Trailer coach

Six nos. of body side pivot door & 2 nos. of emergency window in DMC coach.

Four nos. of double sliding door & 4 nos. of pivot door with 4nos. of emergency window in Trailer coach.

13. **Fire prevention and evacuation:**

Passenger area is isolated from high voltage HT compartment.

Two portable fire extinguishers of 6 kg capacity are provided in on-board electrical equipment room. One fire extinguisher is provided in each driving cab. All fire extinguishers were found within due date of periodical checking.

Double leaf sliding doors (one on each side in TC) have been provided for quick evacuation of passengers (side evacuation) in case of emergency. Moreover, wider vestibules shall facilitate easy and faster evacuation.

14. **Layout of equipment:**

All major equipment are provided in DMC. Traction control convertor, Auxiliary convertor and Electrical control cabinet (ECC), Electrical Distribution cabinet (EDC) are mounted on board. Traction motor, Main compressor, EP brake unit, Traction Transformer and Battery box are mounted under slung. Electrical cables are suitably located and secured in cable trays. In TC, electrical panel is provided on board and brake valves are provided under slung.
All equipment are suitably located/protected so as to not hinder the movement/working of the maintenance team.

15. **Maintenance:**

MEMU rolling stock shall be maintained as per periodical maintenance schedule laid down by RDSO. EMU car shed, Ghaziabad has required facilities for maintaining the subject rolling stock

16. **Number of crew:**

Two nos.– one driver & one guard.

17. **Sample check of dimensions in MEMU rolling stock:**

a. The following sample dimensions were checked in DMC& TC:

S.No.	Dimension	DMC		TC	
		Value as per Drawing	Measured values*	Value as per Drawing	Measured values*
1	Maximum length over body (in mm)	21337	21332	21337	21332
2	Maximum width (in mm)	3245	3242	3245	3244
3	Max. Height above Rail level for centers of coupler for unloaded vehicles (In mm)	1035	1030	1035	1030
4	Minimum Height above rail level-Traction motor gear case (in mm)	91 (For fully loaded)	145(In empty condition)	--	--
5	Max. distance apart of bogie centers	14783	14790	14783	14790
6	Wheel Gauge, or distance apart for all wheel flanges	1599 (Min.) 1602 (Max.)	1600.20 (for axle 1)	--	--
7	Wheel base	2896	2900	2896	2900

*All measurements were taken on pit line with tapes: there may be slight variation due to accuracy of tape, leveling of track, undulation of coach body and access to locations.

All measurements were found within limits.

b. MMD Infringement:

The design of MEMU rolling stock infringes clause no 14 of chapter IV (A) of IRSOD (BG) Revised 2004 and the same has been condoned by Railway Board vide letter no. 2019/CEDO/SD/RS/09 dated 01.01.2021.

18. Rolling stock was tested by running upto maximum speed of 120 kmph between Ghaziabad-Aligarh section in UP/DN both directions During the run, riding of the vehicle was found satisfactory. Working of various safety items/logics were checked during run and found satisfactory. Details of various tests conducted during run are enclosed at Annexure-1.

19. Some of the photographs taken during above inspection are enclosed at Annexure-2.

29/3/21

16/3/2021

(Shailesh Kumar Pathak)
Chief Commissioner of Railway Safety

Test done during the run in CCRS Inspection on 13th March 2021 between GZB & SKQ in UP/DN routes:

From:	**GZB**	**To:**	**SKQ**	**DEP:** 12:57	**ARR:** 13:45
From:	**SKQ**	**To:**	**DSJ**	**DEP:** 14:15	**ARR:** 16:00

Motorman Name: Shri Dinesh Kumar, GZB Lobby

Guard Name: Shri Deepak, GZB Lobby

Train composition: 12 car formation MEMU

1. Brake Application:

1.1. Purpose & Procedure

This test is done to verify brake application by various means.

1.2. Procedure

Following means were used for brake application:

a) **Emergency Brake was applied by service controller at 120 kmph:**
Result: In the above case, emergency brake was applied successfully and traction was prohibited. Train stopped and started again. Train speed was reduced from 120 kmph to 0 kmph and EBD was 700 mtrs(approx.) and time taken was 43 sec by releasing deadman handle at 120 kmph

b) **Service brake application:**
Result: Train stopped and started again. Train speed was reduced from 120 kmph to 0 kmph and EBD was around 650 mtrs. Time taken-39 seconds

c) **Auto brake application:**
Result: Train speed was reduced from 80 kmph to 0 kmph and EBD was around 500 mtrs. Time taken-28 seconds

2. Emergency OFF Loop

2.1 Purpose and Procedure

This test was done to demonstrate that in case of emergency situation such as OHE wire broken case power related faults inside train, power can be isolated immediately.

2.2 Procedure

For doing emergency OFF, one mushroom type push button is provided. If this push button is pressed pantograph will be down and VCB will be open. While train was in motion, Emergency off switch button was pressed.

2.3 Results

As per requirement when emergency off push button was pressed, it was observed that VCB opened and pantograph came down in both the DMCs. Indications were available in HMI for EOL in red colour.

3. Deflation of Secondary Air Suspension

3.1 Purpose

This test is done to ensure that during train operation, if any of the air spring is deflated, train speed shall be restricted to predefined limit (60 kmph in this case) to ensure passenger comfort.

3.2 Procedure

Under normal condition the air spring pressure in the DMC rake around 3.5 bar and when the air spring pressure goes below 1 bar, the air spring suspension failure is detected, and the speed is restricted to 60 Kmph.

This test was done through simulation, when train was in operation at 120kmph, threshold pressure for detection of air spring deflation was increased from 1 bar to 3.5 bar.

3.3 Results

Air spring deflation was detected in DMC car, the traction was prohibited, and the brake were applied to bring the speed below 60 kmph. Once speed came below 60 kmph, traction was allowed again, with a speed restriction of 60 kmph.

4. Neutral Section Negotiation

4.1 Purpose

This test is done to demonstrate that if neutral section push button is pressed at 250 meters mark, TCMS automatically takes care of opening and closing of VCB without any manual intervention.

4.2 Procedure

When train was operating at near about 85 kmph, neutral section push button was pressed at 250meters mark.

4.3 Results

ENS Function was checked for front & rear DMC and it was observed that VCB automatically opened before neutral section and closed successfully after crossing neutral section (it was in sequence and normal) without any manual intervention.

5. Cruise Control

5.1 Purpose

This test is done to demonstrate that when cruise control command is given. TCMS automatically maintained demanded speed.

5.2 Procedure

Cruise control push button was pressed at multiple speed.

Ans

5.3 Results

Whenever cruise control push button was pressed at particular speeds of 14 & 60 & 120kmph, TCMS maintained that speed.

6. Over speed detection

6.1 Purpose

This test is done to demonstrate that, if train crosses over speed set by system, system prohibit traction and apply brake to bring speed less than maximum speed. Once train speed comes below maximum set speed, traction is again allowed.

6.2 Procedure

Maximum speed was set at 120 kmph. Train was accelerated above 120 kmph to create over speed.

6.3 Results

Once train speed crossed 120 kmph. Motoring prohibited and over speed alarm was generated.

7. Passenger Alarm

7.1 Purpose

This test is done to demonstration of functioning of passenger alarm device.

7.2 Procedure

Passenger alarm was pulled several times.

7.3 Results

Alarm chain pulling was checked and found working satisfactorily. ACP was reset and normalized. The alarm bell in driver's cab keeps on ringing till PEAV (Passenger Emergency Alarm Valve) is manually reset. However the bell can be silenced by tripping the MCB provided in the Cab Rear Wall (CRW) Panel. Provision should be made to manually reset it similar to visual indication for PEAV

8. TCMS Redundancy

8.1 Purpose

The TCMS system is providing the infrastructure via MVB and IP network for train wide communication, within each Basic Unit and within in a complete rake. The architecture is divided into a basic unit level and a train level. The basic unit level is responsible for control and monitoring of all TCMS related functions in one basic unit. The train level is responsible for collecting data from all basic units and distributing commands to all basic units.

Train Level:

The TCMS architecture on train level consists of a train wide MVB, train wide IP network and train lines. All process data to control and supervise all train functions is transmitted on train wide MVB and on train wide IP. If train wide MVB fails, the data transmitted over IP is used. So full control functionality is available with one of the bus systems running

CCU1 (Central Control Unit1) and CCU2 (Central Control Unit1) are redundant. The CCU1 is acting as master and CCU2 as slave. If CCU1 is failed, CCU2 will automatically take over the complete functionality of the rake without any manual intervention.

Basic Unit Level:

The TCMS architecture on basic unit level consists of two completely separated MVB each with A+B channels. They are called primary MVB and secondary MVB. The primary MVB is connected to all I/O devices and to the propulsion equipment. The secondary MVB is connected to the redundant I/O equipment. Redundant I/O is available for EP brake, train control, passenger area lights and fans control. There are two control units on basic unit level: The DBCU (drive and brake control unit) connected to the primary MVB and the RBCU (redundant brake control unit) connected to the secondary MVB.

8.2 Procedure

The following failure conditions were created to check the TCMS redundancy

1) CCU 1 failed
2) CCU 2 failed
3) IP Communication failed
4) MVB communication failed
5) CCU1 and CCU2 failed

8.3 Results

1 When CCU 1 is failed, CCU 2 becomes master automatically. No functionality in the train is hampered.
2 When CCU 2 is failed, CCU 1 becomes master automatically. No functionality in the train is hampered.
3 When IP communication is failed, the complete functionality of the train is controlled over MVB network. No functionality in the train is hampered.
4 When MVB communication is failed, the complete functionality of the train is controlled over IP network. No functionality in the train is hampered.
5 When both CCU 1 and CCU 2 are failed, the train is operated in RDM mode using trainlines having maximum speed limit of 60 kmph.

9. Following other tests were also conducted and found satisfactory

i. Parking Brake Test
ii. Holding Brake Test
iii. Reverse Direction Speed Limit Test at a speed of 15 kmph
iv. HT Compartment Interlock Test
v. PA/PIS announcement and driver guard communication test

10. Acceleration measurement

10.1 Purpose

To see the performance of train during acceleration.

10.2 Procedure

Train was accelerated from 0 kmph to 120 kmph between GZB and MIU.

10.3 Results

S.No.	Speed	Measured time in seconds	Average Acceleration (m/sec2)
1	0 to 40 kmph	16	0.69
2	40 to 60 kmph	20	0.28
3	60-80 kmph	31	0.17
4	80-100 kmph	63	0.09
5	100-110 kmph	60	0.05
6	110-120 kmph	65	0.04

11. Deceleration measurement

11.1 Purpose

To see the performance of train during Deceleration.

11.2 Procedure

Train was decelerated to 0kmph from 120kmph by applying 100% braking through master controller.

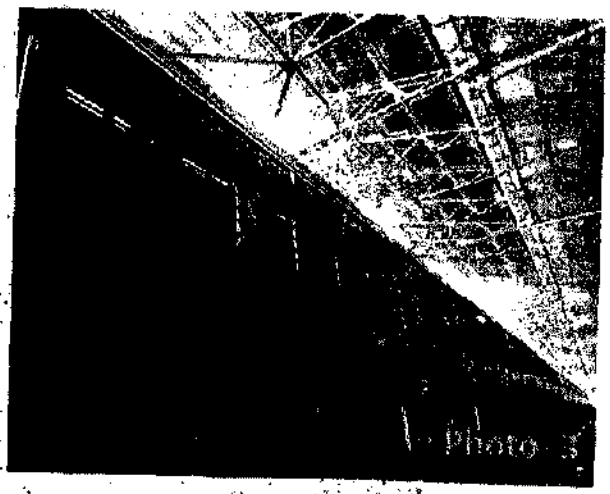
11.3 Results

Sl.No.	Speed	Measured time in seconds	Average Deceleration (m/sec2)
1	120 to 0 kmph	39	-0.71

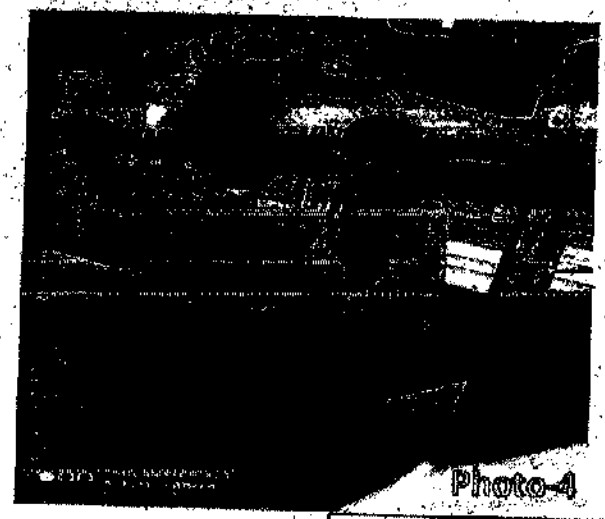
16/3/2021
Dy. CRS/M





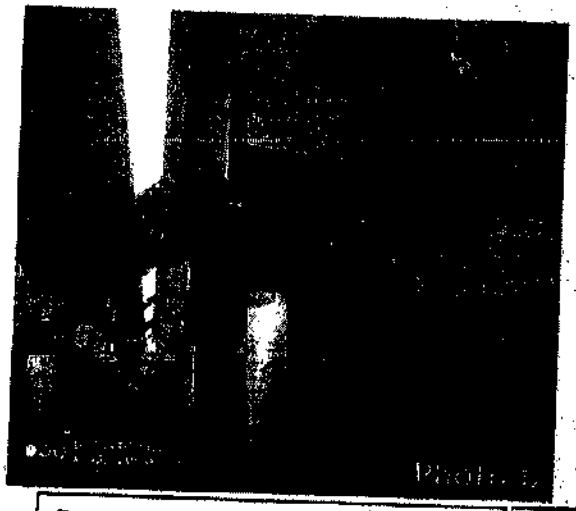


12 Car formation MEMU stock having 3-phase on-board mounted IGBT based propulsion system





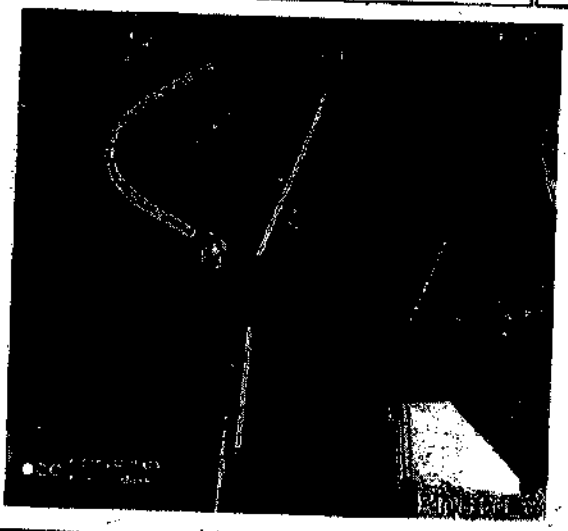
Inspection of upper gear and passenger



Passenger Information System



Emergency Exit Windows and Alarm Chain Handle









Inspection of Undergear Equipments

848854/2021/CEDO SECTION

Annexure 2 (Page 3 of 3)


Photo-12


Photo-13


Photo-14

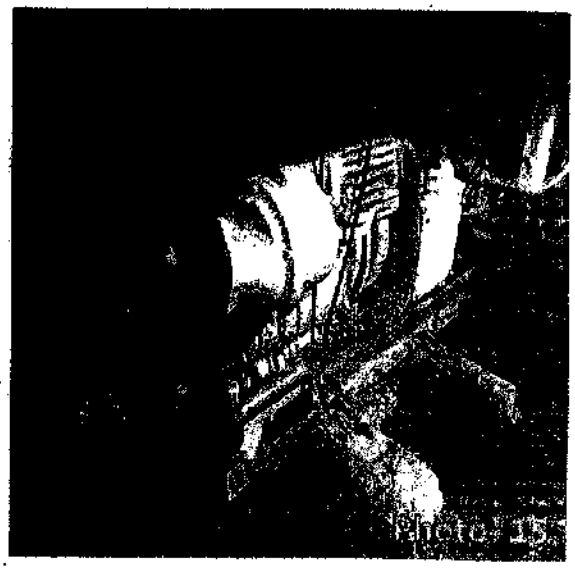

Photo-15


Photo-16


Photo-17

(195)

भारत सरकार **Government of India**
रेल मंत्रालय **Ministry of Railways**
(रेलवे बोर्ड) **(Railway Board)**

No. 2021/CEDO/SR/10(Dwarf) New Delhi, dated 17.03.2021

The General Manager
Western Railway
Church Gate, Mumbai

The General Manager
Central Railway
CSTM, Mumbai

Sub:- Approval for introduction of Double Stack Dwarf Container (DSDC) on existing BG Low Platform Bogie Container Flat Wagon type BLC/BLCM on (i) Vasai Road-Diva-Panvel-JNPT Section (**Central Railway**) & (ii) KLV-VASAI ROAD & MSH-SBIB-ADI sections (**Western Railway**), by respective Zonal Railways

Ref:-(i)WR Letter No. WBOW/4/2019E670-Vol.II
WR- HQ0ENGG(WBOW)/6/2020, dated 05.03.21
(ii) CR Letter No. W/681/Y/135/BR/Double Stack Container, dated 24.12.20

With reference to above applications & clearance studies submitted by Western Railway & Central Railway; approval of the Ministry of Railways, Railway Board is hereby communicated for introduction of '*20.32t axle load Double Stack Dwarf Container (DSDC) on existing BG Low Platform Bogie Container Flat Wagon type BLC*' as per RDSO Speed Certificate No. MW/Container, dated 04.11.2019 and '*22t axle load Double Stack Dwarf Container (DSDC) on existing BG Low Platform Bogie Container Flat Wagon type BLCM*' as per RDSO Speed Certificate no. MW/Container, dated 04.11.2019 on (i) Vasai Road-Diva-Panvel-JNPT Section (**Central Railway**) & (ii) KLV-VASAI ROAD & MSH-SBIB-ADI Sections (**Western Railway**) by General Managers of respective Zonal Railways, following Policy Circular No. 6 and Policy instructions of Board for running Double Stack Dwarf containers (DSDC) issued vide letter no. 2019/CEDO/SR/07/0 dated 18.04.2019, subject to stipulations as under:

i) Compliance of all conditions stipulated in RDSO speed certificates No.MW/Container, dated 04.11.2019 for BLC (20.32 t) and BLCM (22 t) wagons.

ii) Restriction on movement of DSDC on BLC/BLCM wagon at any enroute station shall be incorporated in the Station Working Rule of that station and working timetable. In addition,

18/08/2021

17/03/21

O/C Prem Sagar 17/03/21

(196)

Railways shall also ensure that such restrictions are effectively communicated to all concerned, before operation of DSDC train on the route.

iii) As stipulated in Railway Board letter no.2019/CEDO/SR/01/0 dated 18.04.2019, Chief Bridge Engineer of the Zonal Railway shall co-ordinate for seeking approval of General Manager for introduction of DSDC on BLC/BLCM Wagon over above routes.

Prem Sagar
17/03/21
O/C (प्रेम सागर गुप्ता)
कार्यकारी निदेशक / सिविल इंजीनियरिंग(जी) / रेलवे बोर्ड
[Rly no. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

No. 2021/CEDO/SR/10(Dwarf) New Delhi, dated 17.03.2021

Copy forwarded for information to :

1. ED Standards (Motive Power), RDSO, Manak Nagar, Lucknow
2. EDME (Fr.), Railway Board, New Delhi

O/C Prem Sagar
17/03/21
(प्रेम सागर गुप्ता)
कृते सचिव, रेलवे बोर्ड

(197)

भारतसरकार **Government of India**
रेलमंत्रालय **Ministry of Railways**
(रेलवेबोर्ड) (Railway Board)

No. 2020/CEDO/SR/14 New Delhi, Dated 03.03.2021

The Executive Director (Motive Power)
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub:- Introduction of Broad Gauge Bogie POL Tank wagon type 'BTFLN' Maximum Axle Load: 20.32t] to M/s RITES's Drawing no. MDD-FTW-6315-002 Alt.-1 up to a maximum speed of 100 kmph in Empty / Loaded condition over IR BG routes and Eastern & Western Dedicated Freight Corridors of DFCCIL routes.

Ref:- RDSO's letter No. MW0SPD(TANK)/2/2020, Dated 21.08.2020 & its Amendment No. 1 dated 02.09.2020

1. RDSO has issued Final Speed Certificate dated 21.08.2020 and its Amendment No.1 dated 02.09.2020, for introduction of Broad Gauge Bogie POL Tank wagon type 'BTFLN' Maximum Axle Load: 20.32t] to M/s RITES's Drawing no. MDD-FTW-6315-002 Alt.-1 up to a maximum speed of 100 kmph in Empty / Loaded condition over IR BG routes and Eastern & Western Dedicated Freight Corridors of DFCCIL routes.

2. For DFC, Para 3.2.9 (b) of above speed certificate stipulates as :

   'In loaded condition all spans of BGML, RBG & MBG are restricted to 85 kmph'.

3. Since, bridges on DFC routes are with DFC loading standard and not BGML, RBG or MBG loading, RDSO is requested to re-examine the about stipulation and issue Amendment to above final speed certificate if necessary.

Prem Sagar
03/03/21
(प्रेम सागर गुप्ता)
कार्यकारी निदेशक / सिविल इंजीनियरिंग(जी) / रेलवे बोर्ड
[Rly no. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

ole
Issue pls
12/03/2021

12/3/21

3342348

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
रेलवे बोर्ड Railway Board

(198)

No.2021/CEDO/SR/08(BLCS-S/S) New Delhi, Dated 03.03.2021

The Director General
Research Designs & Standards
Organisation, Manak Nagar,
Lucknow-226011.

The General Manager,
All Indian Railways

Sub: Introduction of BG low platform Bogie Container Flat Wagon type **'BLCS' (A-Car & B-Car)** having **maximum permissible axle load of 22.32t** to RDSO's Drawing Nos. WD-15011-S-02 Alt.3 (A-Car) & WD-15012-S-02 Alt.4 (B-Car) and WD-18093-S-1 for operation upto provisional maximum speed of **65 kmph** without any container and with empty/loaded containers in **single stack** condition over IR routes, *by Zonal Railways*

Ref: (i) RDSO's Provisional Speed Certificate (PSC) No. MW/CONTR/BLC25-S, dated 18.03.2019 and its Amendment no. 1 dated 23.09.2020 & Amendment no. 2 dated 26.02.2021
(ii) RDSO's letter no. MW/CONTR/BLC25-S, dated 05.01.2021
(iii) CCRS office letter no. Q.12011/1/2019-20–त.वि, dated 29.01.2021

With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of BG low platform Bogie Container Flat Wagon type **'BLCS' (A-Car & B-Car)** having **maximum permissible axle load of 22.32t** to RDSO's Drawing Nos. WD-15011-S-02 Alt.3 (A-Car) & WD-15012-S-02 Alt.4 (B-Car) and WD-18093-S-1 for operation upto provisional maximum speed of **65 kmph** without any container and with empty/loaded containers in single stack condition over IR routes, *by Zonal Railways,* with followings stipulations:

i. Observance of all the conditions laid down in RDSO's Provisional Speed Certificate No. MW/CONTR/BLC25-S dated 18.03.2019 its Amendment no. 1 dated 23.09.2020 & Amendment no. 2 dated 26.02.2021, shall be ensured on the Railway while seeking the sanction of General Manager for introduction of rolling stock on the Railway. All the documents required for the sanction of General Manager as per CE(G) Directorate/Railway Board Policy Circular No.6, dated 31.10.2018, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure.
ii. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.
iii. Location of bridges on which speed restrictions have been imposed shall be notified by the Railways and incorporated in the working timetable so that all operating staff aware of the instructions.

Prem Sagar
3/3/21

iv. USFD testing should be carried out at a frequency, one grade higher than the specified frequency in the USFD manual. On section with GMT more than 60, the existing stipulated frequency of once in one and a half month as per USFD manual may be continued.

v. As per Clause 2.1.2.1.1(i) of RDSO's FSC No. MW/CONTR/BLC25-S, dated 27.03.2019 after incorporating modified paras upto Amendment no. 2 dated 26.02.2021, for operation in Loaded condition upto 60 kmph for minimum standard of 52kg (90UTS) rail, **De-stressing temperature for LWR in Temperature Zone IV would be reduced by 5 degree Celsius (Tm to Tm+5).**

vi. Further, as per clause 2.1.2.2(i) for operation in Loaded condition for speed above 60 kmph and upto 65 kmph for minimum standard of 60kg (90UTS) rail, for temperature Zone IV as per IRPWM June 2020, de-stressing of LWR at reduced temperature (Tm to Tm+5) shall be completed before onset of winter season. If **De-stressing in Zone IV is not done at lower temperature, loaded wagon will run at 60 kmph during the winter period of 1st November to 28th /29th of February of next calendar year.**

vii. CC+6+2/22.32t routes will be prioritized for rail grinding at stipulated frequency depending upon the availability of rail grinding machines over Indian Railway. However, rail grinding is not a prerequisite for operation of CC+6+2 / 22.32t axle load trains.

viii. Railway should ensure installation of way side lubricators as per provision of IR P.Way manual in a time bound manner.

ix. Before initiating the operation, PCME of the concerned Railway shall arrange to certify the track worthiness and ensure safety of rolling stock. Proper maintenance of the rolling stock shall also be ensured.

x. Air brake system of wagons with twin-pipe shall be in working order during operation.

xi. Adequate number of WILD and 'Weigh Bridges' shall be progressively installed and their working closely monitored. 100% weighment of loaded wagons except consignments exempted from weighment shall be ensured at the loading points to avoid running of overloaded wagons on track.

xii. No overdue in track/rolling stock maintenance shall be permitted.

xiii. Right powering of loaded trains running with 22.32t axle loaded wagons shall be ensured.

xiv. Single stacking of 20' long & 8'-6" (2591 mm) high and 40' long & 9'-6" (2896 mm)/ 8'- 6" (2591 mm) high ISO (as per ISO:668) containers on BLCS wagon shall follow the instructions mentioned in para 2.4.3 of RDSO's provisional speed certificate No. MW/CONTR/BLC25-S, dated 18.03.2019 after incorporating modified para upto Amendment no. 2 dated 26.02.2021.

xv. Railway shall ensure that containers are lifted and lowered vertically to avoid any damage to inter-box connector locks /Automatic Twist Locks (ATL). Railway shall also ensure proper locking of inter-box connector locks/ATL at the starting station as well as at any station where loading/unloading is done.

Prem Sagar
3/3/21

xvi. BLCS wagon is designed for 25t, but would be operated at 22.32 t axle load on Indian Railway track. Railways may devise suitable measures to prevent overloading in containers.

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Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement no. Q.13011/15/2009-T.W(Part)., Dated 18.12.2020
2. Executive Director (Standards)Motive Power, RDSO, Lucknow
3. Executive Director (Standards)Track-I, RDSO, Lucknow
4. Executive Director ME(Fr) , Railway Board

Prem Sagar
O/C 3/3/21
(प्रेमसागरगुप्ता)
कृते, सचिवरेलवेबोर्ड

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भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
रेलवे बोर्ड Railway Board

201

No.2021/CEDO/SR/09(BLCS-D/S) New Delhi, Dated 03.03.2021

The Director General
Research Designs & Standards
Organisation, Manak Nagar,
Lucknow-226011.

The General Manager,
All Indian Railways

Sub: Introduction of BG low platform Bogie Container Flat Wagon type **'BLCS' (A-Car & B-Car)** having maximum **permissible axle load at 22.32t [Maximum Designed Axle Load 25.0t]** to RDSO's Drawing Nos. WD-15011-S/02 Alt.3 (A-Car) & WD-15012-S/02 Alt.4 (B-Car) and WD 18093-S-1 for operation upto provisional maximum speed of **65 kmph** without any container and with empty/loaded containers *(each container having 2591/2896 mm height & 2400 mm width)* in **double stack** condition having overall height upto 6809 mm, by Zonal Railways

Ref: (i) RDSO's Provisional Speed Certificate (PSC) No. MW/CONTR/BLC25-S, dated 27.03.2019 and its Amendment no. 1 & Amendment no. 2 dated 23.09.2020 & 26.02.2021
(ii) RDSO's letter no. MW/CONTR/BLC25-S, dated 24.04.2019
(iii) CCRS office letter no. Q.12011/4/2019-20-r.w, dated 29.01.2021

With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of BG low platform Bogie Container Flat Wagon type 'BLCS' (A-Car & B-Car) having maximum permissible axle load at 22.32t [Maximum Designed Axle Load 25.0t] to RDSO's Drawing Nos. WD-15011-S/02 Alt.3 (A-Car) & WD-15012-S/02 Alt.4 (B-Car) and WD 18093-S-1 for operation upto provisional maximum speed of 65 kmph without any container and with empty/loaded containers *(each container having 2591/2896 mm height & 2400 mm width)* in double stack condition having overall height upto 6809 mm, over the following routes, *(i) Jaipur- Phulera-Ajmer-Marwar Jn.-Palanpur-Mahesana-Viramgam-Surendra Nagar-Botad-Pipavav Port route, (ii) Palanpur-Samakhiali route, (iii) Palanpur-Kandla port / Mundra port route, (iv) Rewari-Ringas-Phulera route & (v) Gurgaon-Rewari route of Indian Railways, by Zonal Railways,* with followings stipulations:

i. Observance of all the conditions laid down in RDSO's Provisional Speed Certificate No. MW/CONTR/BLC25-S, dated 27.03.2019 with its Amendment no.1 & Amendment no. 2 dated 23.09.2020 & 26.02.2021, shall be ensured on the Railway while seeking the sanction of General Manager for introduction of rolling stock on the Railway. All the documents required for the sanction of General Manager as per CE(G) Directorate/Railway Board Policy Circular No. 6, dated 31.10.2018, along with sanction letter, shall be submitted to the

o/c Prem Sagar 3/3/21

Commission before the start of actual operation of rolling stock, as per extant procedure.

ii. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.

iii. Location of bridges on which speed restrictions have been imposed shall be notified by the Railways and incorporated in the working timetable so that all operating staff is aware of the instructions.

iv. USFD testing should be carried out at a frequency, one grade higher than the specified frequency in the USFD manual. On section with GMT more than 60, the existing stipulated frequency of once in one and a half month as per USFD manual may be continued.

v. CC+6+2/22.32t routes will be prioritized for rail grinding at stipulated frequency depending upon the availability of rail grinding machines over Indian Railway. However, rail grinding is not a prerequisite for operation of CC+6+2 / 22.32t axle load trains.

vi. Railway should ensure installation of way side lubricators as per provision of IR P.Way manual in a time bound manner.

vii. Before initiating the operation, PCME of the concerned Railway shall arrange to certify the track worthiness and ensure safety of rolling stock. Proper maintenance of the rolling stock shall also be ensured.

viii. Air brake system of wagons with twin-pipe shall be in working order during operation.

ix. Adequate number of WILD and 'Weigh Bridges' shall be progressively installed and their working closely monitored. 100% weighment of loaded wagons except consignments exempted from weighment shall be ensured at the loading points to avoid running of overloaded wagons on track.

x. No overdue in track/rolling stock maintenance shall be permitted.

xi. Right powering of loaded trains running with 22.32t axle loaded wagons shall be ensured. Traction power supply shall be suitably augmented to cater for additional load.

xii. As per Clause 2.1.2.1.1(i) of RDSO's FSC No. MW/CONTR/BLC25-S, dated 27.03.2019 after incorporating modified paras upto Amendment no. 2 dated 26.02.2021, for operation in Loaded condition upto 60 kmph for minimum standard of 52kg (90UTS) rail, **De-stressing temperature for LWR in Temperature Zone IV would be reduced by 5^0C (Tm to Tm+5).**

xiii. Further, as per clause 2.1.2.2 for operation in Loaded condition for speed above 60 kmph and upto 65 kmph for minimum standard of 60kg (90UTS) rail, for temperature Zone IV as per IRPWM June 2020, de-stressing of LWR at reduced temperature (Tm to Tm+5) shall be completed before onset of winter season. **If De-stressing in Zone IV is not done at lower temperature, loaded wagon will run at 60 kmph during the winter period of 1st November to 28th /29th of February of next calendar year.**

xiv. The movement of the wagon shall be avoided on platform line.

xv. The flat type (Car A & Car B) with double stack are infringing the IRSOD, hence movement on all type of Open Web Girder Bridges & Tunnels are prohibited.

xvi. Double stacking of 20' long & 8'-6" (2591 mm) high and 40' long & 9'-6" (2896 mm)/ 8'- 6" (2591 mm) high ISO (as per ISO:668) containers on BLCS wagon shall follow the instructions mentioned in para 2.4.3 of RDSO's

Arun Sagar
3/3/21

provisional speed certificate no. MW/CONTR/BLC25-S, dated 27.03.2019 after incorporating modified paras upto Amendment no. 2 dated 26.02.2021.

xvii. In order to ensure safe operation of 22.32t axle load flat BLCS wagons loaded with 9'6"/8'6" container in double stack, horizontal and vertical clearances mentioned in condition no. 2.5.5 of RDSO's provisional speed certificate No. MW/CONTR/BLC25-S, dated 27.03.2019 after incorporating modified paras upto Amendment no. 2 dated 26.02.2021 shall be ensured.

xviii. Following precaution shall be taken in case of abnormal wind condition:

a. When Containers are EMPTY, and wind speed increases more than 50 kmph measured at 10m height from ground level, train to be moved at a speed of 30 kmph and stabled at nearest possible station/yard.
b. When containers are LOADED, and wind speed increases more than 80 kmph measured at 10m height from ground level, the train speed to be reduced to 40 kmph. Train to be stabled at nearest possible station/yard if the wind speed increases more than 100 kmph.

xix. Railway shall ensure that containers are lifted and lowered vertically to avoid any damage to inter-box connector locks /Automatic Twist Locks (ATL). Railway shall also ensure proper locking of inter-box connector locks/ATL at the starting station as well as at any station where loading/unloading is done.

xx. BLCS wagon is designed for 25t, but would be operated at 22.32 t axle load on Indian Railway track. Railways shall devise suitable measures to prevent overloading in containers.

xxi. Railway Board vide letter no. 2019/CEDO/SD/RS/02 dated 11.03.2019 has allowed the operation of Containers (2591/2896 mm height & 2400 mm width) in Double Stack on BG low platform Bogie Container Flat Wagon type 'BLCS' (A-Car & B-Car) over following identifies routes :

a. Jaipur-Phulera-Ajmer-Marwar Jn.- Palanpur Mahesana – Viramgam Surendra Nagar Botad- Pipavav Port route.
b. Palanpur- Samakhiali route.
c. Palanpur- Kandla port/ Mundra port route.
d. Rewari- Ringas- Phuiera route.
e. Gurgaon- Rewari route.

Operation on other than above routes, shall require the prior sanction of Railway Board.

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[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement no. Q.13011/15/2009-T.W(Part)., Dated 18.12.2020
2. Executive Director (Standards)Motive Power, RDSO, Lucknow
3. Executive Director (Standards)Track-I, RDSO, Lucknow
4. Executive Director ME(Fr) , Railway Board

o/c ISSUE P.C.S.

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o/c (प्रेमसागरगुप्ता)
कृते, सचिवरेलवेबोर्ड

FTS- 3342178

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भारतसरकार **Government of India**
रेलमंत्रालय **Ministry of Railways**
(रेलवेबोर्ड) (Railway Board)

No. 2021/CEDO/SR/07(Gemac) New Delhi, Dated 26.02.2021

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

The General Manager,
All Indian Railways

Sub:- Provisional introduction of Points and Crossing Tamping Machine Model CDC-16 III, manufactured by M/s Gemac Engineering Machinery Co. Ltd., China up to a **maximum speed of 50 kmph when running on its own power and 65 kmph when running in train** formation over IR, *by Zonal Railways*

Ref:-(i) RDSO's letter No. TM/HM/11/47/PCT/GEMAC, Dated 26.01.2020
(ii) CCRS's letter No. Q.12011/29/2019-20-t.w, Dated 29.01.2021

With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for **Provisional** introduction of Points and Crossing Tamping Machine Model CDC-16 III, manufactured by M/s Gemac Engineering Machinery Co. Ltd., China, up to a maximum speed of 50 kmph when running on its own power and 65 kmph when running in train formation over IR, *by Zonal Railways*, with the following stipulations :

i. Observance of all conditions laid down in RDSO's Provisional Speed Certificate no. TM/HM/11/47/PCT/GEMAC, dated 26.11.2019 for operation up to a maximum speed of 50 [FIFTY] kmph on its own power and 65 [SIXTY-FIVE] kmph when running in train formation. Remarks of the Railway against each para of the Speed Certificate shall be submitted to the Commission before start of actual operation of rolling stock.

ii. Observance of all permanent and temporary speed restrictions already in force and /or those that may be imposed from time to time on various accounts.

iii. Location of bridges on which speed restrictions have been imposed shall be notified by the Railways and incorporated in the working timetable.

iv. Before starting the operation, the Principal Chief Engineer of the concerned Railway shall arrange to certify the track worthiness and safety of the Rolling stock and they shall also ensure proper maintenance of the rolling stock.

v. Brakes of the rolling stock shall be in good working order during the operation.

vi. When the machine is being moved either on its own power or hauled in train, it shall be ensured that all the protruding parts are withdrawn and suitably locked, so that during

Prem Sagar
26.02.21

the run, there is no possibility of any infringement occurring to the Standard Moving Dimensions.

vii. Signages/stickers having description should be provided on all push buttons, indicators and gauges etc. provided in cabins of the machine.

viii. Machine operators need to be properly trained for the working of machine.

ix. Pamphlets describing safety related instructions including DO's and DONT's, for operation and working of the machine shall be laid down and displayed in all the cabins for the machine operators. In addition to this, one more pamphlet regarding "Troubleshooting" should also be pasted in each cabin so that operator is able to clear the block section in case of failure of the machine.

26/2

o/c (प्रेम सागर गुप्ता)
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e-mail address :edceg@rb.railnet.gov.in

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement no. Q.12011/29/2019-20- t.w, Dated 29.01.21
2. Executive Director (Standards) Motive Power, RDSO, Lucknow
3. Principal Executive Director/TMM, RDSO, Lucknow
4. Executive Director TK(M&MC), Railway Board

o/c 26/2

(प्रेम सागर गुप्ता)
कृते, सचिव रेलवे बोर्ड

02/03/21 Issued
02/03/2021

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भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
रेलवे बोर्ड Railway Board

No. 2020/CEDO/SD/IRSOD/O/ACS-30 **New Delhi, Dated 26.02.2021**

Addressed to:
(As per list mentioned below)

Sub: Addendum & Corrigendum Slip (ACS) No. 30 to the Indian Railways Schedule of Dimensions 1676 mm Gauge (BG) Revised, 2004

The Ministry of Railways (Railway Board) have decided that the Item No. 1 & Item 8(iii) of Chapter-I: General, Schedule I; Item 1 & Item 11 of Chapter II: Station Yard, Schedule I, of Indian Railways Schedule of Dimensions 1676 mm Gauge (BG) Revised, 2004 be amended as shown in the enclosed Addendum & Corrigendum Slip (ACS) No. 30.

Enclosure: **ACS No. 30**

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(प्रेम सागर गुप्ता)
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[Phone: Rly: 030-44803, MTNL011-23383379]

List for Distribution:
1. General Managers, All Indian Railways & Production Units
2. Principal Chief Engineers and Chief Administrative Officers (Con.), All Indian Railways
3. Director General, RDSO, Manak Nagar, Lucknow
4. Director General, NAIR, Vadodara
5. Chief Commissioner of Railway Safety, Ashok Marg, Lucknow
6. Commissioner of Railway Safety, All Circles
7. Director, IRICEN, Rail Path, Pune – 411001 (Maharashtra)
8. Director, IRIEEN, P.B. No. 233, Nasik Road – 422101 (Maharashtra)
9. Director, IRISET, Taar Naka Road, Lalla Guda, Secunderabad
10. Director, IRIMEE, Jamalpur – 811214 (Bihar)
11. Director, IRITM, IRITM Campus, Manak Nagar, Lucknow

3/3/21

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2/3/2021

Copy to:
1. Concerned PSO for kind information of Chairman cum CEO, M/Infra, M/T&RS, M/O&BD, M/Finance, Railway Board
2. Chief Vigilance Officers, All Indian Railways.
3. DG(RHS), DG(RPF), AM(CE), AM(Works), AM(B), AM(Elec.), AM(RS), AM(ME), AM/Tele, AM/C&IS, AM/Sig., AM(Plg.), AM/L&A, PED(B&S), PED(Vigilance), EDCE(G), PEDCE(P), EDTK(M&MC), EDCE(B&S), EDF(X)-I, EDF(X)-II, ED(Works), EDW(Plg.), ED/Project(Mon.), ED(L&A), ED(PSU), EDVE, ED(Safety), ED (Sig. Dev.), ED(Tele), EDRS(G), EDRE, EDEE(G), EDFE, EDE(N), ED(Accounts), ED/T&MPP, EDME(Chg.), EDME(Frt.), ED/Plg., JS(conf), JS(P), JS(G), JS(D), Vigilance-III, Vig(Conf) of Railway Board.

Addendum & Corrigendum Slip (ACS) No. 30
To
Schedule-I, Indian Railways Schedule Of Dimensions (B.G.) Revised, 2004

I. Amendment to Item 1 of Chapter-I, Schedule I: General

Item 1 shall be read as under:

Spacing of Tracks:-

1. Minimum distance centre to centre of straight tracks

(i)	For existing works	4265mm
(ii)	For new works/addition to existing works	5300mm

Note:

(a) See Appendix for extra clearance required on curves.
(b) For spacing of tracks in tunnels, Road Over Bridges/Flyovers, through and semi through girder bridges, see item 13(i).
(c) New/Additional works cover laying of new line and new running loops. Extension of existing line or replacement of points & crossings will not be treated as new work.
(d) OHE mast and Signal post shall not preferably be provided in between tracks. However, under unavoidable circumstances, the clearances mentioned in Para 1 (ii) above shall be increased by equal to the width of such provisions/structures/foundation, as the case may be.
(e) In case of tunnels, ROBs, flyovers, through & semi-through girder bridges, where centre to centre distance lesser than 5300mm between tracks has been provided, lesser centre to centre distance between tracks can be provided on approaches also up to adequate distance to facilitate gradual increase in centre to centre distance up to minimum 5300mm.
(f) Further, in case lesser than 5300mm centre to centre distance between tracks has been provided in the existing station yard, lesser centre to centre distance between tracks can be provided on approaches towards block section also, up to adequate distance to facilitate gradual increase in centre to centre distance up to minimum 5300mm.

II. Amendment to Item 8(iii) of Chapter-I, Schedule I: General

Item 8(iii) shall be read as under:

iii	a. Below the rail level up to the formation level of the track on straight and curves up to radius of 875m	2575mm
	b. Below the rail level up to the formation level of the track on curves with radius less than 875m	2725mm

Prem Sagar
26.02.21

Note:

(a) The required clearances as mentioned under item 8(iii) (a) and (b) above will be applicable in case of new lines/doubling/electrification.

(b) The various fixtures which are attached to the track like traction bonds etc. and are required to be filled with the rail can be provided and the clearance as mentioned in item 8(iii) (a) & (b) above will not be applicable to these fixtures.

(c) The clearances as mentioned in item no. 8(iii) (a) and (b) above will not be applicable in case of bridges, tunnels & ballastless track (including washable apron).

III. Amendment to Item 1 of Chapter II, Schedule I: Station Yards

Item 1 shall be read as under:

1.	Minimum distance centre to centre on straight tracks	
	(i) For existing works	4265mm
	(ii) For new works/addition to existing works	5300mm

Note:

(a) See Appendix for 'extra clearance required on curves'.

(b) ** deleted

(c) In case new OHE masts/Signal posts are required to be provided in between tracks under unavoidable circumstances, the clearance maintained in 1(ii) above shall be increased by equal to the width of such provisions/ structures/ foundations, as the case may be.

(d) For "New Works/additions to existing works such as conversion of existing loop lines into main line, laying of new loop lines and/or shifting of existing lines etc" in the **existing yard**, if the stipulation mentioned in 1(ii) and Note (c) above are not likely to be achieved due to existing field constraints, then minimum horizontal distance from center of track to any structure, as mentioned in Note (c) of Para 11(B) of Chapter-II, IRSOD-2004 shall be ensured.

(e) In completely new yard or portion of existing yard, where "New Work" is being done independent of the existing yard, stipulation under 1(ii) above shall be ensured.

(f) In case of tunnels, ROBs, flyovers, through & semi-through girder bridges, where centre to centre distance lesser than 5300mm has been provided, lesser centre to centre distance can be provided on approaches also up to adequate distance to facilitate gradual increase in centre to centre distance up to 5300mm.

Prem Sagar
26.02.21

IV. Amendment to Item 11 of Chapter-II, Schedule I: Station Yard

Item 11 shall be read as under:

11. Minimum Horizontal Distance from Centre of Track to Any Structure:

A. For existing works:

i. From rail level to 305mm above rail level	1675mm
ii. From 305mm to 3355mm above rail level	2135mm
iii. From 3355mm to 4115mm above rail level	2135mm decreasing to 1980mm
iv. From 4115 mm to 6250mm above rail level	1600mm
v. Below the rail level and up to the formation level of the track on straight and curves up to radius of 875m	2575mm
vi. Below the rail level and up to the formation level of the track on curves with radius less than 875 m	2725mm

Note:

(a) See Appendix for 'extra clearances required on curves'.

(b) On lines other than main lines or existing main lines where electric traction is not likely to be introduced, the horizontal distance of 1370 mm for height from 4115mm to 6100 mm above rail level may be allowed to continue.

(c) The various fixtures which are attached to the track like lock bar, point machine, traction bonds, point and signal rodding *etc.* and are required to be fitted with the rail, can be provided and the clearance, as mentioned in item (v) and (vi) above will not be applicable to these items.

(d) In case of electrification works in existing yards, no foundation/mast/signal post/any other structure shall be provided between two tracks. In case **it is inescapable**, the minimum distance of edge of foundation/mast/signal post/any other structure at and above formation level up to rail level from centre of track, shall be 2360mm on straight track & on curve having radius 875m & more and 2510 mm in case of curve having radius less than 875m.

(e) Items (v) and (vi) above shall not be applicable in case of bridges, tunnels, ballastless track (including washable apron).

Prem Sagar
26.02.21

B. For new works or alteration to existing works:

(i)	From rail level to 305mm above rail level	1905mm
(ii)	From 305mm to 1065mm above rail level	1905mm increasing to 2360mm
(iii)	From 1065mm to 3735mm above rail level	2360mm
(iv)	From 3735mm to 4420mm above rail level	2360mm decreasing to 2135mm
(v)	From 4420mm to 4610 mm above rail level	2135mm decreasing to 1980mm
(vi)	From 4610mm to 6250 mm above rail level	1600mm
(vii)	Below the rail level and up to formation level of the track on straight and curves up to radius of 875m	2575mm
(viii)	Below the rail level and up to the formation level of the track on curves with radius less than 875m	2725mm

Note:

(a) See Appendix for 'extra clearances required on curves'.

(b) Items (vii) & (viii) above shall not be applicable in case of bridges, tunnels, ballastless track (including washable apron).

(c) For addition/ alteration to works in existing yard the minimum horizontal distance shall be maintained as 2360mm on straight track and on curve having radius 875m & more and 2510mm in case of curve having radius less than 875m, if it is difficult to provide prescribed clearances as mentioned in items (vii) and (viii) above due to existing field constraints.

(d) The various fixtures which are attached to the track like traction bonds etc. and are required to be fitted with the rail can be provided and the clearance as mentioned in item (vii) and (viii) above will not be applicable to these fixtures.

Prem Sagar
26.02.21

3343034 (U)

211

भारत सरकार **Government of India**
रेल मंत्रालय **Ministry of Railways**
(रेलवे बोर्ड) **(Railway Board)**

No. 2021/CEDO/PC-6/31.10.18/SECTIONALSPEED New Delhi, Date 22.02.2021

The General Managers,
All Indian Railways.

Sub: Procedure for Increase in Sectional Speed up to 130 kmph

1. Presently, different Zonal Railways are following different procedure for increasing the sectional speed of Sections. To expedite and to have uniform procedure over different Zonal Railways for increasing the sectional speed of a Section, Railways may follow the following procedure:

1.1 The Section where sectional speed is to be increased shall be identified by Division based on the fulfilment of different instructions issued by Railway Board time to time.

1.2 The concerned Branch officers of the Engineering, Electrical, Mechanical, S&T and Operating departments of the Division shall sign a Joint Safety Certificate for carrying out OMS run/s in the Section up to speed 10% more than the proposed sectional speed (*except for curves where max. permissible speed shall be worked out as per IRPWM)* and further subject to observance of permanent and temporary speed restrictions. The above OMS run/s shall be carried out in special train/s run for this purpose.

1.3 On signing of above Joint Safety Certificate Divisional Railway Manager (DRM) shall authorize above OMS run/s. DRM while authorising above OMS run/s, shall also stipulate precautions, if any, to be taken during above OMS run/s and also nominate officer/s who shall accompany above OMS run/s.

1.4 SrDEN/C of the Division shall coordinate for above OMS run/s.

1.5 The results of OMS run/s shall be analyzed by Division and if satisfactory, SrDEN/C with the approval of DRM shall submit proposal along with all details of the Section to Principal Chief Engineer, for approaching CRS for increase in sectional speed of the Section.

O/C
ISSUE PLS
23.02.2021

Prem Sagar
22.02.21

1.6 The proposal shall be examined by Zonal Railway HQ. and if justified, Engineering Department would process for signing of Joint Safety Certificate at the level of PHODs for submission of same to CRS, along with all other documents required to be submitted to CRS for increase in sectional speed.

2. For increasing sectional speed of a Section, it is not necessary to carry out COCR. However, for introduction of first passenger carrying train at 130 kmph, COCR is necessary as per Policy Circular No. 6.

3. This is issued with the approval of Board (M/O&BD, M/T&RS, M/Infra).

Prem Sagar
22.02.21

(प्रेम सागर गुप्ता)
कार्यकारी निदेशक / सिविल इंजीनियरिंग(जी) / रेलवे बोर्ड
[Rly no. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow
2. The Commissioner of Railway Safety, All Circles

3336686

(213)

भारतसरकार Government of India
रेलमंत्रालय Ministry of Railways
(रेलवेबोर्ड) (Railway Board)

No. 2020/CEDO/SD/RS/02 New Delhi, dated 12.02.2021

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub:- Condonation of infringements w.r.t IRSOD (BG) Revised, 2004 by **wheel diameter (840mm)** of 22.9t axle load Broad Gauge Bogie Open Hopper wagon type **'BOBSNS'** as per RDSO Drawing No. WD-18076-S-02(Alt-2) for operation on Indian Railways

Ref:- (i) RDSO's letter No. CT/DG/LW/BOBS, dated 06.11.2020
(ii) CCRS's letter No. Q.14011/04/2020-21-T.W, dated 05.12.2020

With reference to your above application, dated 06.11.2020{ref. (i)}, sent through the Chief Commissioner of Railway Safety, Lucknow; the sanction of Ministry of Railways, Railway Board is hereby communicated for condonation of infringement w.r.t. Chapter-IV(A), Schedule-I of IRSOD (BG) Revised, 2004 by **wheel diameter (840mm)** of 22.9t axle load Broad Gauge Open Hopper wagon type **'BOBSNS'** to RDSO Drawing No. WD-18076-S-02(Alt-2), as shown in details enclosed with above mentioned application, details of infringements as under:

Clause 2(ii) – Minimum diameter on the tread of new carriage or wagon wheel, measured at 63.5mm from wheel gauge face by 74mm (i.e. 840mm instead of 914mm)

Further, above sanction of condonation is subject to the following stipulations :

"(i) Instruction related to the movement of the rolling stock on Curves, Points and Crossing/Turnouts and Diamond Crossing should be incorporated in the Speed Certificate for its operation, whenever being issued by RDSO.

(ii) The limit of wheel flat to be reduced from 60 mm to 50mm for 840mm diameter wheel."

Prem Sagar
12/02/21
o/c
(प्रेम सागर गुप्ता)
कार्यकारी निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड
[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

No. 2020/CEDO/SD/RS/02 New Delhi, dated 12.02.2021
Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Compound of DRM/NER, Ashok Marg, Lucknow-1 w.r.t. his endorsement No.Q.14011/04/2020-21-T.W, dated 05.12.2020
2. Commissioner of Railway Safety, all Circles
3. ED Standards (Track-1), RDSO, ManakNagar,Lucknow
4. EDME(Freight)/Railway Board, New Delhi

Issue ple
12/02/2021

15/02/21

o/c Prem Sagar
12/02/21
(प्रेम सागर गुप्ता)
कृते, सचिव रेलवे बोर्ड

FTS⇒ 3336346

भारत सरकार **Government of India**
रेल मंत्रालय **Ministry of Railways**
(रेलवे बोर्ड) (Railway Board)

214

No. 2019/CEDO/SR/05

New Delhi, Dated 08.02.2021

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

The General Manager,
All Indian Railways

Sub:- Sanction for introduction of operation of Air-Conditioned Self-Propelled Inspection car **'SPICAC' [Maximum Axe Load:**14.62t**]** to ICF's Drawing no. SPICAC-9-0-001 **upto maximum speed of 105 kmph,** *by Zonal Railways*, on track maintained as per standards specified under Para 522 of Indian Railways Permanent Way Manual, June 2020 over Indian Railway system

Ref:- (i) RDSO's letter No. MC/SPIC/US/ICF, dated 16.10.2020 & 20.01.2021
(ii) CCRS's letter No. Q-12011/08/2018-19-T.W., dated 26.11.2020

(A) With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of operation of Air- Conditioned Self-Propelled Inspection car 'SPICAC' [Maximum Axe Load:14.62t] to ICF's Drawing no. SPICAC-9-0-001 **upto maximum speed of 105 kmph,** by Zonal Railways, on track maintained as per standards specified under Para 522 of Indian Railways Permanent Way Manual, June 2020 over Indian Railway system, with the following stipulations :

i. Observance of all the conditions laid down in RDSO Final Speed Certificate No.MC/SPIC/US/ICF, dated 09.10.2020 and its amendment no. 1 dated 20.01.2021, remarks of the Railway against each Para of the RDSO's speed certificate shall be submitted to the Commission before actual start of the operation of the subject rolling stock.

ii. Observance of all permanent and temporary speed restrictions already in force and/ or those that may be imposed from time to time on various accounts.

iii. Location of bridges on which speed restrictions have been imposed shall be notified by the Railways and incorporated in the working timetable so that all operating staff is aware of the instructions.

iv. Brakes of the subject rolling stock shall be in good working order during the operations.

v. Before initiating the operation, PCME of the concerned railway shall arrange to certify the track worthiness and ensure safety of rolling stock. Proper maintenance of the rolling stock shall also be ensured.

O/C
ISSUE PLS
8/2/21
9/2/21
Prem Sagar
08.02.21

vi. The pit line maintenance standard of SPICAC shall be in accordance of passenger coaching stock/DMU.

vii. In case of dead condition/window trailing inspection, the SPICAC may be attached in passenger train running up to a maximum speed of 105 kmph.

viii. **Air Conditioned Self-Propelled Inspection Car (SPICAC) shall not be used for recording of accelerations using portable accelerometer during Window Trailing Inspections.**

(B) This supersedes Railway Board's Letter No. 2019/CEDO/SR/05, dated 15.04.2019.

Prem Sagar
8/2/21

o/c (प्रेम सागर गुप्ता)
कार्यकारी निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड
[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement no. Q-12011/08/2018-19-T.W., dated 26.11.2020
2. Executive Director (Standards) Motive Power, RDSO, Lucknow
3. Executive Director (Standards) Track-I, RDSO, Lucknow
4. Executive Director ME (Chg.) , Railway Board

o/c Prem Sagar
8/2/21
(प्रेम सागर गुप्ता)
कृते, सचिव रेलवे बोर्ड

FTS – 3342178

(216)

भारतसरकार **Government of India**
रेलमंत्रालय **Ministry of Railways**
(रेलवेबोर्ड) (Railway Board)

No. 2021/CEDO/SR/07(Gemac) New Delhi, Dated 05.02.2021

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Sub:- Provisional introduction of Points and Crossing Tamping Machine Model CDC-16 III, manufactured by M/s Gemac Engineering Machinery Co. Ltd., China up to a maximum speed of 50 kmph when running on its own power and 65 kmph when running in train formation *by Zonal Railways*

Ref:-(i) RDSO's letter No. TM/HM/11/47/PCT/GEMAC, Dated 26.01.2020
(ii)CCRS's letter No. Q.12011/29/2019-20–त.वि, Dated 29.01.2021 (copy enclosed)

With reference to ref.(ii) above, CCRS has forwarded the RDSO application dated 26.01.2020, for sanction of the Ministry of Railways, Railway Board for **Provisional** introduction of Points and Crossing Tamping Machine Model CDC-16 III, manufactured by M/s Gemac Engineering Machinery Co. Ltd., China up to a maximum speed of 50 kmph when running on its own power and 65 kmph when running in train formation *by Zonal Railways*, with the some stipulations.

Stipulations nos.(vii)(a) & (viii)(a) require compliance from RDSO, before processing the case further.

RDSO may examine the issues involved and submit compliance at the earliest.

DA: as above.

Prem Sagar
05/02/21
(प्रेमसागरगुप्ता)
कार्यकारीनिदेशकसिविलइंजी.(जी)/रेलवेबोर्ड
[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

Copy forwarded for information to :

1. Executive Director (Standards)Motive Power, RDSO, Lucknow
2. Executive Director/Track Machine, RDSO, Lucknow

o/c
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5/2/2021

813521/2021/CEDC SECTION

भारत सरकार
नागर विमानन मंत्रालय
(रेल संरक्षा आयोग)
GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

फोन/Ph.: 0522-2233087, 2233108 (PBX)
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217

पूर्वोत्तर रेलवे, मं.रे.प्र. कार्यालय परिसर
16, अशोक मार्ग, लखनऊ-226001

N.E. Railway, DRM OFFICE CAMPUS
16, Ashok Marg, Lucknow-226 001

संख्या–Q.12011/29/2019-20–त.वि.

दिनांक–29.01.2021

सचिव (सिविल इंजी.)
रेल मंत्रालय (रेलवे बोर्ड)
रेल भवन
नई दिल्ली।

[ध्यानार्थ:EDCE(G)]

विषय: Introduction of Points and Crossing Tamping Machine Model CDC-16 III, manufactured by M/s Gemac Engineering Machinery Co. Ltd., China up to a maximum speed of 50 kmph when running on its own power and 65 kmph when running in train formation by Zonal Railways.

संदर्भ: (i) DG/RDSO's letter no. TM/HM/11/47/PCT/GEMAC, Dated 26.01.2020.
(ii) RDSO's Provisional Speed Certificate No. TM/HM/11/47/PCT/GEMAC, Dated 26.11.2019
(iii) This office's letter of even no., Dated 31.01.2020
(iv) RDSO's letter no. TM/HM/11/47/PCT/GEMAC, Dated 29.05.2020
(v) This office's letter of even no., Dated 05.06.2020
(vi) RDSO's letter no. TM/HM/11/47/PCT/GEMAC, Dated 29.07.2020

Vide reference (i), RDSO has approached this office with the proposal for sanction of Railway Board through CCRS for operation of subject rolling stock on the basis of RDSO's Provisional Speed Certificate mentioned under reference (ii). Vide reference (iii) & (v) [copies enclosed], RDSO was asked by this office to furnish certain clarifications on the subject case. Clarifications on the issues were given by RDSO to this office vide reference (iv) & (vi) [copies enclosed].

Statutory inspection of the subject rolling stock by the CCRS was carried out on 20.01.2021 at Delhi Safdarjung Station, Northern Railway. Inspection report of the machine is enclosed as **Annexure-1**.

Case has been examined by this office and is found to be in order. Accordingly, the same is forwarded for necessary action with the recommendation for the sanction of the Central Government for **PROVISIONAL** operation of Points and Crossing Tamping Machine Model CDC-16 III, manufactured by M/s Gemac Engineering Machinery Co. Ltd., China up to a maximum speed of 50 [FIFTY] kmph when running on its own power and 65 [SIXTY FIVE] kmph when running in train formation by Zonal Railways with conditions mentioned in the **Annexure-2.**

Moreover, at the time of issue of Final Speed Certificate after Five years or within that time, the speed potential as designed or raised from the present 50/65 kmph should be achieved for optimum utilization of the machine.

This is issued with the approval of Chief Commissioner of Railway Safety.

29.01.2021
(उत्तम प्रकाश)
विशेष कार्याधिकारी/संरक्षा/यांत्रिक

संलग्नक: यथोक्त

प्रतिलिपि :
महानिदेशक (ट्रैक मशीन),
ट्रैक मशीन निदेशालय,
अनुसंधान, अभिकल्प एवं मानक संगठन,
मानक नगर, लखनऊ–226011

813521/2021/CEDO SECTION

(218)

[of CCRS Office's Letter No. Q.12011/29/2019-20-II/II, Dated 29.01.2021 regarding PCT Model CDC-16 III]

Conditions to be ensured for operation of Points and Crossing Tamping Machine Model CDC-16 III, manufactured by M/s Gemac Engineering Machinery Co. Ltd., China up to a maximum speed of 50 kmph when running on its own power and 65 kmph when running in train formation by Zonal Railways

1. Observance of all conditions laid down in RDSO's Provisional Speed Certificate no. TM/HM/11/47/PCT/GEMAC, Dated 26.11.2019 for operation up to a maximum speed of 50 [FIFTY] kmph on its own power and 65 [SIXTY FIVE] kmph when running in train formation. **Remarks of the Railway against each para of the Speed Certificate shall be submitted to the Commission before start of actual operation of rolling stock.**
2. Observance of all permanent and temporary speed restrictions already in force and /or those that may be imposed from time to time on various accounts.
3. Location of bridges on which speed restrictions have been imposed shall be notified by the Railways and incorporated in the working timetable.
4. Before starting the operation, the Principal Chief Engineer of the concerned Railway shall arrange to certify the track worthiness and safety of the Rolling stock and they shall also ensure proper maintenance of the rolling stock.
5. Brakes of the rolling stock shall be in good working order during the operation.
6. When the machine is being moved either on its own power or hauled in train, it shall be ensured that all the protruding parts are withdrawn and suitably locked, so that during the run, there is no possibility of any infringement occurring to the standard moving dimensions.
7. As per Railway Board's letter no. 2017/Infra/6/33 Dated 18.09.2019, MD/DFCCIL has been empowered to sanction, over DFC lines, the use of a locomotive or rolling stock already sanctioned by Central Government (Railway Board). In terms of this letter, Points and Crossing Tamping Machines Model CDC-16 III may also run on DFCCIL network after sanction of Railway Board. Under such situation, following issues shall be ensured:
   (a) Present Speed Certificate no. TM/HM/11/47/PCT/GEMAC, Dated 26.11.2019 issued by RDSO is applicable for IR network only. Hence, to enable running of this rolling stock over DFCCIL routes, an amendment to the Speed Certificate TM/HM/11/47/PCT/GEMAC, Dated 26.11.2019 needs to be issued by RDSO duly covering conditions for DFCCIL network also.
   (b) As DFCCIL SOD is different, fresh examination for any infringement as per DFCCIL SOD should also be done.
8. In addition to the conditions mentioned above, Railway shall take following measures in the Point & Crossing Tamping Machine Model CDC-16 III before its introduction:
   (a) Emergency Brake Valve (EBV) has been provided near the driver desk in an enclosure having a gate. Due to this, driver takes longer time to access the EBV. Gate of the enclosure must be removed so that driver can access the EBV immediately. This must be ensured by the Railway before introducing operation of machine.
   (b) Signages/stickers having description should be provided on all push buttons, indicators and gauges etc. provided in cabins of the machine.
   (c) Speed of the machine in self-propelled mode is mentioned as 80 kmph (Proposed maximum speed is 50 kmph) on outer panel of the machine. This needs to be corrected by mentioning both the speeds i.e. on its own power as well as in train formation to be finally sanctioned by the Railway Board.

29.01.2021

(d) Knowledge of the operator regarding working of the machine was checked. Machine operators need to be properly trained as far as working of machine is concerned.

(e) Pamphlets describing safety related instructions including DO's and DONT's, for operation and working of the machine shall be laid down and displayed in all the cabins for the machine operators. In addition to this, one more pamphlet regarding "Troubleshooting" should also be pasted in each cabin so that operator is able to clear the block section in case of failure of the machine.

***

29.01.2021

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
रेलवे बोर्ड Railway Board

220

No. 70/WDO/ORI/RO/IVol.VII

New Delhi, date 27.01.2021

The General Managers,
All Indian Railways

SUB: Increase in Speed of Loop lines from Presently 15 kmph to 30 kmph

1. Railway Board vide Gazette Notification No. G.S.R. 168(E), dated 12.03.2020 has amended Para 4.10(1) of G&SR. The amended Para is as under:

"(1) The speed of trains over non-interlocked facing points shall not exceed 30 kilometres an hour in any circumstances and the speed over turn-outs and crossovers shall not exceed its permissible speed or 30 kilometres an hour whichever is less, unless otherwise prescribed by approved special instructions, which may permit a higher speed."

2. After above amendment of G&SR, CRSs are of the view that now increase in speed of loop lines from 15 kmph to 30 kmph is within ambit of Zonal Railways.
3. It has therefore been decided by Board (M/Infra, M/O&BS, M/T&RS) that Zonal Railways can increase the speed over loop lines from 15 kmph to 30 kmph after following procedure as mentioned below:
    a. The Sr DEN/C and Sectional Sr DEN shall certify that all the provisions of IRPWM as incorporated in para 408 have been complied with.
    b. The trial run along with OMS shall be carried out through loop lines at speed of 30 kmph by divisional branch officers of Electrical, Mechanical, S&T, Operating and Engineering department. During trial run the visibility of signals shall also be observed. Based on the trial run, above branch officers shall jointly certify the safe running of trains over turnouts, turn-in-curves and loop lines, as well as adequacy of visibility of Signals. In addition, Engineering Officer shall also certify that the OMS peaks observed are within permissible limits.
    c. Divisional Railway manager shall forward the proposal for increase of speed over loop lines with above certificates to the Chief Track Engineer of Zonal Railway along with relevant details like track structure on loop lines, turn-in-curve, type of turnout, yard diagrams, OMS run results, joint report of branch officers etc.
    d. The Chief Track Engineer shall issue Track Certificate certifying that the tracks over turnouts, turn-in-curves and loop lines are fit for increasing the speed on loop lines to 30 kmph.

29/1/21

Prem Sagar
27.01.21

e. PHODs of Engineering, Electrical, Mechanical, S&T and Operating department shall issue Joint Safety Certificate certifying that it is safe to increase speed over loop lines to 30 kmph.
f. Based on above, General Manager shall authorize increase of speed over loop lines up to 30 kmph.
g. Chief Track Engineer shall coordinate and issue authorization letter under his signatures to all concerned for incorporating the same in working time table.

4. Sufficient publicity in loco lobbies, announcement at railway stations should be made for some time to alert passengers standing on platforms.
5. For the sections having loop line speed 30 kmph, Zonal Railway shall ensure availability of functional speed-recordable speedometers in the locomotives.

Prem Sagar
27/01/21
o/c (प्रेम सागर गुप्ता)
कार्यकारी निदेशक / सिविल इंजीनियरिंग(जी) / रेलवे बोर्ड
[Rly no. 030-44803, MTNL No.-011-23383379]
e-mail address :edceg@rb.railnet.gov.in

No. 70/WDO/ORI/RO/IVol.VII **New Delhi, date 27 .01.2021**

Copy forwarded for information to:

1. Chief Commissioner of Railway Safety, N.E. Railway, DRM Office Campus, 16 Ashok Marg, Lucknow-226001
2. Commissioner of Railway Safety, All Circles

Prem Sagar
27.01.21
o/c (प्रेम सागर गुप्ता)
कार्यकारी निदेशक / सिविल इंजीनियरिंग(जी) / रेलवे बोर्ड
[Rly no. 030-44803, MTNL No.-011-23383379]

FTS - 3336333

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
रेलवे बोर्ड Railway Board

222

No. 2020/CEDO/SR/22 **New Delhi, dated 27.01.2021**

The Director General,
RDSO,
Manak Nagar, -226011

The General Manager,
All Indian Railways

Sub : Introduction of BG Bogie Open Wagon type **'BOYEL'** having **maximum axle load of 25T** over the routes to be identified by GM of Zonal Railways and notified by Railway Board at a **maximum speed up to 85 kmph in empty** and **45 kmph in loaded condition**, by Zonal Railways on Indian Railways track

Ref : (i) Final Speed Certificate no. MW/SPD/BG/BOXNEL & BOYEL, dated 11.04.2016
(ii) Railway Board letter no. 2019/CE-II/TS/25t dated 01.09.2020
(iii) CCRS letter no. Q14011/02/2007-T.W, dated 29.10.2020, addressed to RDSO.
(iv) CCRS letter no. M.15014/01/2017-18-T.W., dated 24.05.2017

Sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of BG Bogie Open Wagon type **'BOYEL'** having maximum **axle load of 25T** over routes notified by Railway Board, at a **maximum speed up to 85 kmph in empty** and **45 kmph in loaded condition**, by Zonal Railways on Indian Railways track, subject to terms and conditions as given in RDSO's Final Speed Certificate (FSC)No. MW/SPD/BG/BOXNEL & BOYEL, dated 11.04.2016, for operation up to a maximum speed of 85 kmph in empty and 45 kmph in loaded condition with Board's stipulations as under :

(i) Observance of all permanent and temporary speed restrictions already in force and/ or those that may be imposed from time to time on various accounts.
(ii) WILDs need to be installed on priority and detachment / maintenance protocols on critical alarms as per JPO issued on WILD vide Railway Board's letter no. 2002/M(N)/960/1 Pt. dated 29/07/2008 or as amended from time to time by Board (M/T&RS, M/I, M/O&BD) to be followed. 25 ton axle load wagon can run on the notified routes on 60 kg 90 UTS rail at 45 kmph, if WILD is installed and in working condition.
(iii) Compulsory weighment of every rake along with action on overloaded wagons/rakes as per protocols of JPO issued on weigh bridges (2009) vide Railway Board's letter no. 2007/CE-II/TS/8 dated 02/04/2009 must be ensured. In all cases of un-weighed rakes, except for the exempt category rakes, the existing instruction of running at restricted speeds up to next EIMWB should be strictly followed and these should be part of WTT in case not already so on any Zone. Also, whenever overloading is detected, load adjustment should be compulsorily done and certified so by the station/yard in charge of the location where load adjustment has been done.
(iv) Adequate powering of train must be ensured and monitored by Zonal Railways.
(v) Improvement to track structure, formation, bridges being accelerated in the nominated route.
(vi) No overdue in track/rolling stock maintenance being permitted.

ISSUE PLS
3/2/2021

27.01.21

(vii) Double distant signals being progressively provided in view of higher NBD/EBD.
(viii) Traction power supply being augmented to cater for additional load.
(ix) GM of the Zonal railways shall identify the routes on which 25 ton axle load wagon can run, having 60 kg 90 UTS rail and other pre-requisite as mentioned above. Fitness of bridges should also be checked for running at 45 kmph. However, these routes will be notified by Railway Board on the recommendation of Zonal Railways.

Prem Sagar
27.01.21
o/c (प्रेम सागर गुप्ता)
कार्यकारी निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड
[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement no. M.15014/01/2017-18-T.W., dated 24.05.2017
2. Executive Director (Standards)Motive Power, RDSO, Lucknow.
3. Executive Director (Standards) Track, RDSO, Lucknow.
4. Executive Director ME(Fr.) , Railway Board.

Prem Sagar
27.01.21
o/c (प्रेम सागर गुप्ता)
कृते, सचिव रेलवे बोर्ड

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भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
रेलवे बोर्ड Railway Board

No. 2020/CEDO/SR/23 **New Delhi, dated 27.01.2021**

The Director General,
RDSO,
Manak Nagar, -226011.

The General Manager,
All Indian Railways

Sub: Introduction of BG Bogie Open Wagon type '**BOXNEL**' having **maximum axle load of 25T** over the routes to be identified by GM of Zonal Railways and notified by Railway Board at a **maximum speed up to 85 kmph in empty and 45 kmph in loaded condition**, by Zonal Railways on Indian Railways track

Ref: (i) ED/Wagon/ RDSO letter no. MW/SPD/BG/BOXNEL, dated 05.11.2020,
(ii) Final Speed Certificate no. MW/SPD/BG/BOXNEL & BOYEL, dated 11.04.2016
(iii) Railway Board letter no. 2019/CE-II/TS/25t dated 01.09.2020
(iv) CCRS letter no. Q14011/03/2007-T.W, dated 29.10.2020, addressed to RDSO
(v) CCRS letter no. M.15014/01/2017-18-T.W., dated 24.05.2017
(vi) Railway Board's letter no. 2007/CE-II/TS/8 dated 02/04/2009
(vii) Railway Board's letter no. 2002/M(N)/960/1 Pt. dated 29/07/2008

With reference to RDSO above application no. MW/SPD/BG/BOXNEL, dated 05.11.2020; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of BG Bogie Open Wagon type '**BOXNEL**' having **maximum axle load of 25T**over routes notified by Railway Board, at a **maximum speed up to 85 kmph in empty and 45 kmph in loaded condition**, by Zonal Railways on Indian Railways track, subject to terms and conditions as given in RDSO's Final Speed Certificate no. MW/SPD/BG/BOXNEL & BOYEL, dated 11.04.2016 for operation up to a maximum speed of 85 kmph in empty and 45 kmph in loaded condition with Board's stipulations as under:

i. Observance of all permanent and temporary speed restrictions already in force and/ or those that may be imposed from time to time on various accounts.

ii. WILDs need to be installed on priority and detachment / maintenance protocols on critical alarms as per JPO issued on WILD's vide Railway Board's letter no. 2002/M(N)/960/1 Pt. dated 29/07/2008 or as amended from time to time by Board (M/T&RS, MI and M/O&BD) to be followed. 25 ton axle load wagon can run on the above routes on 60 kg 90 UTS rail at 45 kmph, if WILD is installed and in working condition.

iii. Compulsory weighment of every rake along with action on overloaded wagons/rakes as per protocols of JPO issued on weigh bridges (2009) vide Railway Board's letter no. 2007/CE-II/TS/8 dated 02/04/2009 must be ensured. In all cases of unweighed rakes, except for the exempt category rakes, the existing instruction of running at restricted speeds upto next ElMWB should be strictly followed and these should be part of WTT in case not already so on any Zone. Also, whenever overloading is detected, load adjustment should be compulsorily done and certified so by the station/yard in charge of the location where load adjustment has been done.

29/01/21

o/c Prem Sagar
27.01.21

iv. Adequate powering of train must be ensured and monitored by Zonal Railways.

v. Improvement to track structure, formation, bridges being accelerated in the nominated route.

vi. No overdue in track/rolling stock maintenance being permitted.

vii. Double distant signals being progressively provided in view of higher NBD/EBD.

viii. Traction power supply being augmented to cater for additional load.

ix. GM of the Zonal railways shall identify the routes on which 25 ton axle load wagon can run, having 60 kg 90 UTS rail and other pre-requisite as mentioned above. Fitness of bridges should also be checked for running at 45 kmph. **However, these routes will be notified by Railway Board on the recommendation of Zonal Railways.**

Prem Sagar
27.01.21
o/c (प्रेम सागर गुप्ता)
कार्यकारी निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड
[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement no. M.15014/01/2017-18-T.W., dated 24.05.2017 & CCRS letter no. Q14011/03/2007-T.W, dated 29.10.2020.
2. The Commissioner of Railway Safety, All Circles
3. Executive Director (Standards)Motive Power, RDSO, Lucknow.
4. Executive Director (Standards) Track, RDSO, Lucknow.
5. Executive Director ME(Fr.), Railway Board.

o/c Prem Sagar
27.01.21
(प्रेम सागर गुप्ता)
कृते, सचिव रेलवे बोर्ड

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भारत सरकार Government of India

रेल मंत्रालय Ministry of Railways

रेलवे बोर्ड Railway Board

No. 2020/CEDO/SR/25 **New Delhi, dated 27.01.2021**

The Director General,
RDSO,
Manak Nagar, -226011

The General Manager,
All Indian Railways

Sub : Introduction of BG Bogie Open Wagon type **'BOXNS'** having maximum **axle load of 25T** over the routes to be identified by GM of Zonal Railways and notified by Railway Board at a **maximum speed up to 85 kmph in empty** and **45 kmph in loaded condition**, by Zonal Railways on Indian Railway track.

Ref : (i) ED/Wagon/RDSO letter no. MW/SPD/BG/BOXNS, dated 06.11.2020
(ii) Final Speed Certificate no. MW/SPD/BG/BOXNS, dated 24.08.2016
(iii) Railway Board letter no. 2019/CE-II/TS/25t dated 01.09.2020
(iv) CCRS letter no. M.15014/01/2017-18-T.W., dated 24.05.2017
(v) Railway Board's letter no. 2007/CE-II/TS/8 dated 02/04/2009
(vi) Railway Board's letter no. 2002/M(N)/960/1 Pt. dated 29/07/2008

With reference to RDSO above application no. MW/SPD/BG/BOXNS, dated 06.11.2020; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of BG Bogie Open Wagon type **'BOXNS'** having maximum **axle load of 25T** over routes notified by Railway Board, at **a maximum speed up to 85 kmph in empty** and **45 kmph in loaded condition, by** Zonal Railways on Indian Railways track, subject to terms and conditions as given in RDSO's Final Speed Certificate (FSC) No. MW/SPD/BG/BOXNHL25T, dated 30.10.2015 read along with its Amendment no.1 issued vide RDSO's letter no. MW/SPD/BG/BOXNS, dated 24.08.2016 for operation up to a maximum speed of 85 kmph in empty and 45 kmph in loaded condition with Board's stipulations as under:

i. Observance of all permanent and temporary speed restrictions already in force and/ or those that may be imposed from time to time on various accounts.
ii. WILDs need to be installed on priority and detachment / maintenance protocols on critical alarms as per JPO issued on WILD's vide Railway Board's letter no. 2002/M(N)/960/1 Pt. dated 29/07/2008 or as amended from time to time by Board (M/T&RS, M/I and M/O&BD) to be followed. 25 ton axle load wagon can run on the above routes on 60 kg 90 UTS rail at 45 kmph, if WILD is installed and in working condition.

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O/C Prem Sagar
27.01.21

iii. Compulsory weighment of every rake along with action on overloaded wagons/rakes as per protocols of JPO issued on weigh bridges (2009) vide Railway Board's letter no. 2007/CE-II/TS/8 dated 02/04/2009 must be ensured. In all cases of unweighed rakes, except for the exempt category rakes, the existing instruction of running at restricted speeds upto next EIMWB should be strictly followed and these should be part of WTT in case not already so on any Zone. Also, whenever overloading is detected, load adjustment should be compulsorily done and certified so by the station/yard in charge of the location where load adjustment has been done.

iv. Adequate powering of train must be ensured and monitored by Zonal Railways.

v. Improvement to track structure, formation, bridges being accelerated in the nominated route.

vi. No overdue in track/rolling stock maintenance being permitted.

vii. Double distant signals being progressively provided in view of higher NBD/EBD

viii. Traction power supply being augmented to cater for additional load.

ix. GM of the Zonal railways shall identify the routes on which 25 ton axle load wagon can run, having 60 kg 90 UTS rail and other pre-requisite as mentioned above. Fitness of bridges should also be checked for running at 45 kmph. **However, these routes will be notified by Railway Board on the recommendation of Zonal Railways.**

Prem Sagar
27.01.21
o/c

(प्रेम सागर गुप्ता)
कार्यकारी निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड
[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement no. M.15014/01/2017-18-T.W., dated 24.05.2017
2. The Commissioner of Railway Safety, All Circle
3. Executive Director (Standards)Motive Power, RDSO, Lucknow
4. Executive Director (Standards)Motive Power, RDSO, Lucknow
5. Executive Director ME(Fr.) , Railway Board

Prem Sagar
27.01.21
o/c

(प्रेम सागर गुप्ता)
कृते, सचिव रेलवे बोर्ड

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228

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
रेलवे बोर्ड Railway Board

No. 2020/CEDO/SR/26 **New Delhi, Dated 27.01.2021**

The Director General
Research Designs & Standards
Organisation, Manak Nagar,
Lucknow-226011.

Managing Director, DFCCIL,
5th Floor, Pragati Maidan,
Metro Station Building
Complex,
New Delhi – 110001.

The General Manager,
All Indian Railways

Sub:- Introduction of Broad Gauge Bogie Open wagon type **'BOXNLWM2'** [Maximum Axle Load: **22.82t**] to RDSO's Drawing no. WD-20015-S-01 Alt.-Nil upto a maximum speed of **100 kmph in Empty and 75 kmph in Loaded condition, over IR BG routes** by Zonal Railways, and upto a maximum speed of ***100 kmph in both empty and loaded conditions, over routes of Eastern and Western Dedicated Freight Corridors (DFCs)*** *by DFCCIL*

Ref:- (i) RDSO's letter No. MW/SPD/BG/BOXNLWM2, dated 03.11.2020
(ii) CCRS's letter No. Q-12011/04/2020-21-T.W., dated 11.12.2020 & 06.01.2021

With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of Broad Gauge Bogie Open wagon type **'BOXNLWM2'** [Maximum Axle Load: **22.82t**] to RDSO's Drawing no. WD-20015-S-01 Alt.-Nil upto a maximum speed of **100 kmph in Empty and 75 kmph in Loaded condition, over IR BG routes,** by Zonal Railways and upto a maximum speed of ***100 kmph in both empty and loaded conditions, over routes of Eastern and Western Dedicated Freight Corridors (DFCs),*** *by DFCCIL*, with following stipulations :

(i) Observance of all conditions laid down in RDSO's Final Speed Certificate No. MW/SPD/BG/BOXNLWM2, Dated 05.08.2020 with Amendment no. 1 & 2 dated 29.10.2020 & 18.11.2020 respectively for operation up to a maximum speed of 75 kmph in loaded condition and 100 kmph in empty condition, shall be ensured on the Railway while seeking the sanction of General Manager/ MD DFCCIL, as the case may be, for introduction of rolling stock on the Railway. All the documents required for the sanction of General Manager as per CE(G) Directorate/Railway Board Policy Circular No. 6, dated 31.10.2018, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure.

29/01/21

O/c Prem Sagar
27.01.21

(ii) **DFCCIL** shall introduce wagon over DFCs as per Railway Board's letter no. 2017/Infra/6/33 dated 18.09.2019 on the subject 'Operation of Rolling Stock on DFC'.

(iii) DFCCIL has also been advised to take certain maintenance measures vide Railway Board's DO letter no.2011/CE-II/TS/DFC dated 15.10.2018. DFCCIL would ensure the mitigating measures as included in the letter

(iv) In terms of Railway Board letter No. 2020/CE-II/TS/22.82 dt 20.08.2020, General Manager of Zonal Railway shall identify the route for operation of (CC+8+2)t/ (CC+6+2)t axle load wagon at 75kmph.

(v) Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.

(vi) CC+8+2 routes will be prioritized for rail grinding at stipulated frequency depending upon the availability of rail grinding machines over Indian Railway. However, rail grinding is not a prerequisite for operation of CC+8+2 / 22.9t axle load trains at 75 kmph.

(vii) For DFC routes, periodic rail grinding at stipulated frequency should be carried out on routes by ensuring the availability of traffic blocks, as per instruction issued by Railway Board/DFCCIL time to time. However, rail grinding is not a prerequisite for operation of CC+8+2/22.9t loaded train

(viii) Railway should ensure installation of way side lubricators as per provision of IR P.Way manual in a time bound manner.

(ix) For regular operation in loaded condition of BOXNLWM2 wagon, Railway shall ensure all the speed restrictions mentioned in para 3.3.3.2 (ii), (iii) & (iv) of RDSO's FSC No. MW/SPD/BG/BOXNLWM2, Dated 05.08.2020 after incorporating modified paras upto Amendment no. 2 dated 18.11.2020.

(x) Location of bridges on which speed restrictions have been imposed shall be notified by the Railways/DFCCIL and incorporated in the working timetable so that all operating staff is aware of the instructions.

(xi) Adequate number of WILD and 'Weigh Bridges' shall be progressively installed and their working closely monitored. 100% weighment of loaded wagons except consignments exempted from weighment shall be ensured at the loading points to avoid running of overloaded wagons on track.

(xii) Before initiating the operation, PCME of the concerned Railway/GGM (Mechanical) of the DFCCIL shall arrange to certify the track worthiness and ensure safety of rolling stock. Proper maintenance of the rolling stock shall also be ensured.

(xiii) No overdue in track/rolling stock maintenance shall be permitted.

Prem Sagar
27.01.21

(xiv) Right powering of loaded trains running with CC+8+2/22.82t axle loaded wagons shall be ensured. Traction power supply shall be suitably augmented to cater for additional load.

(xv) When the wagon is being moved, it shall be ensured that all protruding parts are withdrawn and suitably locked, so that during the run there is no possibility of any infringement occurring to the standard moving dimensions.

(xvi) Brakes of the locomotive and the rake of the BOXNLWM2 wagons shall be in good working order during the operation.

For Indian Railways:

(xvii) *As per Clause 3.1.2.1.1(i) of RDSO's FSC No. MW/SPD/BG/BOXNLWM2, dated 05.08.2020 after incorporating modified paras up to Amendment No. 2 dated 18.11.20, for operation in Loaded condition up to 60 kmph for minimum standard of 52kg (90UTS) rail, De-stressing temperature for LWR in Temperature Zone IV would be reduced by 5 ^{0} C (Tm to Tm+5).*

Further, as per clause 3.1.2.2 (i) for operation in Loaded condition for speed above 60 kmph and up to 75 kmph for minimum standard of 60kg (90UTS) rail, for temperature Zone IV as per IRPWM, de-stressing of LWR at reduced temperature (Tm to Tm+5) shall be completed before onset of winter season. If ***De-stressing in Zone IV is not done at lower temperature, loaded wagon will run at 60 kmph during the winter period of 1 st November to 28th /29th of February of next calendar year.***

o/c Prem Sagar 27.01.21

(प्रेम सागर गुप्ता)
कार्यकारी निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड
[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement no. Q-12011/04/2020-21-T.W., dated 11.12.2020 & 06.01.2021
2. Executive Director (Standards)Motive Power, RDSO, Lucknow
3. Executive Director (Standards)Track-I, RDSO, Lucknow
4. Executive Director ME(Fr) , Railway Board

o/c Prem Sagar 27.01.21

(प्रेम सागर गुप्ता)
कृते, सचिव रेलवे बोर्ड

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231

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
रेलवे बोर्ड Railway Board

No. 2020/CEDO/SR/28 **New Delhi, dated 27.01.2021**

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

The General Manager,
All Indian Railways

Sub:- Running of Broad Gauge Bogie open wagon type **BOXNM2** [Maximum Axle Load: **22.82t]** to RDSO's Drawing no. WD-05084-S-02 Alt.07 upto a maximum speed of **100 [HUNDRED] kmph in empty** and **75 [SEVENTY FIVE] kmph in loaded condition** over Indian Railway system

Ref:- (i)RDSO's letter No. MW/SPD/BG/BOXNM2, Dated 23.11.2020.
(ii) CCRS's letter No. Q-12011/19/2019-20-T.W., dated 17.12.2020
(iii) Railway Board's Letter No. 2020/CEDO/SR/04, dated 30.04.2020

(A) With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction/re-validation of Broad Gauge Bogie Open wagon type **BOXNM2** [Maximum Axle Load: **22.82t]** to RDSO's Drawing no. WD-05084-S-02 Alt.07 upto a maximum speed of **100 [HUNDRED] kmph in empty** and **75 [SEVENTY FIVE] kmph in loaded condition, by Zonal railways,** over Indian Railway system,with following stipulations :

i. Observance of all conditions laid down in RDSO's Final Speed Certificate No. MW/SPD/BG/BOXNM2, Dated 11.10.2019 with Amendment no. 1 & 2 dated 06.07.2020 & 12.11.2020 respectively, for operation up to a maximum speed of 75 kmph in loaded condition and 100 kmph in empty condition, shall be ensured on the Railway, while seeking the sanction of General Manager for introduction of rolling stock on the Railway. All the documents required for the sanction of General Manager as per CE(G) Directorate/Railway Board Policy Circular No. 6, dated 31.10.2018, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure.

ii. In terms of Railway Board letter No. 2020/CE-II/TS/22.82 dt 20.08.2020, General Manager of Zonal Railway shall identify the route for operation of (CC+8+2)t/ (CC+6+2)t axle load wagon at 75kmph.

iii. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.

iv. CC+8+2 routes will be prioritized for rail grinding at stipulated frequency depending upon the availability of rail grinding machines over Indian Railway. Howeyer, rail grinding is not a prerequisite for operation of CC+8+2 / 22.9t axle load trains at 75 kmph.

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Prem Sagar
27.01.21

v. Railway should ensure installation of way side lubricators as per provision of IR P.Way manual in a time bound manner.

vi. For regular operation in loaded condition of BOXNM2 wagon over IR routes, Railway shall ensure all the speed restrictions mentioned in para 2.2.4.1 (iii) of RDSO's Final Speed MW/SPD/BG/BOXNM2, Dated 11.10.2019 after incorporating modified paras upto Amendment no. 2 Dated 12.11.2020.

vii. Location of bridges on which speed restrictions have been imposed shall be notified by the Railways and incorporated in the working timetable so that all operating staff is aware of the instructions.

viii. Adequate number of WILD and 'Weigh Bridges' shall be progressively installed and their working closely monitored. 100% weighment of loaded wagons (except consignments exempted from weighment) shall be ensured at the loading points to avoid running of overloaded wagons on track.

ix. No overdue in track/rolling stock maintenance shall be permitted.

x. As per Clause 2.1.2.1.1(i) of RDSO's FSC No. MW/SPD/BG/BOXNM2, Dated 11.10.2019 after incorporating modified paras upto Amendment no. 2 Dated 12.11.2020, for operation in Loaded condition up to 60 kmph for minimum standard of 52kg (90UTS) rail, De-stressing temperature for LWR in Temperature Zone IV would be reduced by 5 ^{0}C (Tm to Tm+5).

Further, as per clause 2.1.2.2 for operation in Loaded condition for speed above 60 kmph and up to 75 kmph for minimum standard of 60kg (90UTS) rail, for temperature Zone IV as per IRPWM, de-stressing of LWR at reduced temperature (Tm to Tm+5) shall be completed before onset of winter season. **If De-stressing in Zone IV is not done at lower temperature, loaded wagon will run at 60 kmph during the winter period of 1 st November to 28th /29th of February of next calendar year.**

xi. Right powering of loaded trains running with 22.82t axle loaded wagons shall be ensured.

xii. When the wagon is being moved, it shall be ensured that all protruding parts are withdrawn and suitably locked, so that during the run there is no possibility of any infringement occurring to the standard moving dimensions.

xiii. The heap of loading should not exceed the Diagram No. 1D of Indian Railway Schedule of Dimensions (BG) Revised 2004.

xiv. Brakes of the locomotive and the rake of the wagons shall be in good working order during the operation.

xv. Before initiating the operation, PCME of the concerned Railway shall arrange to certify the track worthiness and ensure safety of rolling stock. Proper maintenance of the rolling stock shall also be ensured.

(B) This supersedes Railway Board's Letter No. 2020/CEDO/SR/04, dated 30.04.2020.

Prem Sagar
27.01.21
(प्रेम सागर गुप्ता)

कार्यकारी निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड

[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

Copy forwarded for information to (letter No. 2020/CEDO/SR/28, dated 27.01.2021) : (233)

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement no. Q-12011/19/2019-20-T.W., dated 17.12.2020
2. The Commissioner of Railway Safety, all Circles
3. Executive Director (Standards)Motive Power, RDSO, Lucknow
4. Executive Director (Standards) Track-I, RDSO, Lucknow
5. Executive Director ME(Fr), Railway Board

Prem Sagar
27.01.21
भ/c (प्रेम सागर गुप्ता)
कृते, सचिव रेलवे बोर्ड

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भारत सरकार Government of India

रेल मंत्रालय Ministry of Railways

रेलवे बोर्ड Railway Board

No. 2020/CEDO/SR/29 **New Delhi, dated 27.01.2021**

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

The General Manager,
All Indian Railways

Sub:- Introduction of Broad Gauge Bogie open wagon type '**BOXNR** [Maximum Axle Load: **22.9t**] to RDSO's Drawing no. WD-07001-S-02 Alt.-13 upto a maximum speed of **100 [HUNDRED] kmph in empty** and **75 [SEVENTY FIVE] kmph in loaded condition** over Indian Railway system

Ref:- (i) RDSO's letter No. MW/SPD/BG/BOXNR, Dated 23.11.2020
(ii) CCRS's letter No. Q-12011/17/2019-20-T.W., Dated 17.12.2020
(iii) Railway Board's Letter No. 2020/CEDO/SR/03, dated 30.04.2020

(A) With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction/re-validation of Broad Gauge Bogie open wagon type **'BOXNR'** [Maximum Axle Load: **22.9t**] to RDSO's Drawing no. WD-07001-S-02 Alt.-13 upto a maximum speed of **100 [HUNDRED] kmph in empty** and **75 [SEVENTY FIVE] kmph in loaded condition, by Zonal Railways,** over Indian Railway systemover Indian Railway system,with following stipulations :

i. Observance of all conditions laid down in RDSO's Final Speed Certificate No. MW/SPD/BG/BOXNR, Dated 11.09.2019 with Amendment no. 1 & 2 dated 14.08.2020 & 12.11.2020 respectively for operation up to a maximum speed of 75 kmph in loaded condition and 100 kmph in empty condition, shall be ensured on the Railway, while seeking the sanction of General Manager for introduction of rolling stock on the Railway. All the documents required for the sanction of General Manager as per CE(G) Directorate/Railway Board Policy Circular No. 6, dated 31.10.2018, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure.

ii. In terms of Railway Board letter No. 2020/CE-II/TS/22.82 dt 20.08.2020, General Manager of Zonal Railway shall identify the route for operation of (CC+8+2)t/ (CC+6+2)t axle load wagon at 75kmph.

iii. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.

iv. CC+8+2 routes will be prioritized for rail grinding at stipulated frequency depending upon the availability of rail grinding machines over Indian Railway. However, rail

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q/c
Prem Sagar
27.01.21

grinding is not a prerequisite for operation of CC+8+2 / 22.9t axle load trains at 75 kmph.

v. Railway should ensure installation of way side lubricators as per provision of IR P.Way manual in a time bound manner.

vi. For regular operation in loaded condition of BOXNR wagon over IR routes, Railway shall ensure all the speed restrictions mentioned in para 2.2.4.2 (ii), (iii) & (iv) of RDSO's Final Speed Certificate No. MW/SPD/BG/BOXNR, Dated 11.09.2019 after incorporating modified paras upto Amendment no. 2 Dated 12.11.2020.

vii. Location of bridges on which speed restrictions have been imposed shall be notified by the Railways and incorporated in the working timetable so that all operating staff is aware of the instructions.

viii. Adequate number of WILD and 'Weigh Bridges' shall be progressively installed and their working closely monitored. 100% weighment of loaded wagons shall be ensured at the loading points to avoid running of overloaded wagons on track.

ix. No overdue in track/rolling stock maintenance shall be permitted.

x. As per Clause 2.1.2.1.1(i) of RDSO's FSC No. MW/SPD/BG/BOXNR, Dated 11.09.2019 after incorporating modified paras up to Amendment No. 2 dated 12.11.2020, for operation in Loaded condition up to 60 kmph for minimum standard of 52kg (90UTS) rail, De-stressing temperature for LWR in Temperature Zone IV would be reduced by 5 ^{0}C (Tm to Tm+5).

Further, as per clause 2.1.2.2(i) for operation in Loaded condition for speed above 60 kmph and up to 75 kmph for minimum standard of 60kg (90UTS) rail, for temperature Zone IV as per IRPWM, de-stressing of LWR at reduced temperature (Tm to Tm+5) shall be completed before onset of winter season. **If De-stressing in Zone IV is not done at lower temperature, loaded wagon will run at 60 kmph during the winter period of 1 st November to 28th /29th of February of next calendar year.**

xi. Right powering of loaded trains running with 22.9t axle loaded wagons shall be ensured.

xii. When the wagon is being moved, it shall be ensured that all protruding parts are withdrawn and suitably locked, so that during the run there is no possibility of any infringement occurring to the standard moving dimensions.

xiii. The heap of loading should not exceed the Diagram No. 1D of Indian Railway Schedule of Dimensions (BG) Revised 2004.

xiv. Brakes of the locomotive and the rake of the wagons shall be in good working order during the operation.

xv. Before initiating the operation, PCME of the concerned Railway shall arrange to certify the track worthiness and ensure safety of rolling stock. Proper maintenance of the rolling stock shall also be ensured.

(B) This supersedes Railway Board's Letter No. 2020/CEDO/SR/03, dated 30.04.2020.

Prem Sagar
27.01.21

o/c (प्रेम सागर गुप्ता)
कार्यकारी निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड
[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

Copy forwarded for information to (letter No. 2020/CEDO/SR/29, dated 27.01.2021):

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement no. Q-12011/17/2019-20-T.W., dated 17.12.2020
2. The Commissioner of Railway Safety, all Circles
3. Executive Director (Standards)Motive Power, RDSO, Lucknow
4. Executive Director (Standards) Track-I, RDSO, Lucknow
5. Executive Director ME(Fr), Railway Board

Prem Sagar
27.01.21

o/c (प्रेम सागर गुप्ता)

कृते, सचिव रेलवे बोर्ड

FTS 3337763

237

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
रेलवे बोर्ड Railway Board

No. 2020/CEDO/SR/30 **New Delhi, dated 27.01.2021**

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

The General Manager,
All Indian Railways

Sub:- Introduction/Re-validation of Broad Gauge Bogie open wagon type **'BOXNRHS'** [Maximum Axle Load: **22.9t**] to RDSO's Drawing no. WD-07001-S-02 Alt.-13 upto a maximum speed of **100 [HUNDRED] kmph in empty** and **75 [SEVENTY FIVE] kmph in loaded condition,** over Indian Railway system

Ref:- (i) RDSO's letter No. MW/SPD/BG/BOXNRHS, Dated 23.11.2020
(ii) CCRS's letter No. Q-12011/16/2019-20-T.W., dated 17.12.2020
(iii) Railway Board's letter no 2020/CEDO/SR/02 Dated 30.04.2020.

(A) With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction/re-validation of Broad Gauge Bogie open wagon type **'BOXNRHS'** [Maximum Axle Load: **22.9t**] to RDSO's Drawing no. WD-07001-S-02 Alt.-13 upto maximum speed of **100 [HUNDRED] kmph in empty** and **75 [SEVENTY FIVE] kmph in loaded condition, by Zonal Railways,** over Indian Railway system,with following stipulations :

(i) Observance of all conditions laid down in RDSO's Final Speed Certificate No. MW/SPD/BG/BOXNRHS, Dated 11.09.2019 with Amendment no. 1 & 2 dated 14.08.2020 & 12.11.2020 respectively for operation up to a maximum speed of 75 kmph in loaded condition and 100 kmph in empty condition, shall be ensured on the Railway while seeking the sanction of General Manager for introduction of rolling stock on the Railway. All the documents required for the sanction of General Manager as per CE(G) Directorate/Railway Board Policy Circular No. 6, dated 31.10.2018, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure.

(ii) In terms of Railway Board letter No. 2020/CE-II/TS/22.82 dt 20.08.2020, General Manager of Zonal Railway shall identify the route for operation of (CC+8+2)t/ (CC+6+2)t axle load wagon at 75kmph.

(iii) Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.

02/02/2021

Prem Sagar
27.01.21

(iv) CC+8+2 routes will be prioritized for rail grinding at stipulated frequency depending upon the availability of rail grinding machines over Indian Railway. However, rail grinding is not a prerequisite for operation of CC+8+2 / 22.9t axle load trains at 75 kmph.

(v) Railway should ensure installation of way side lubricators as per provision of IR P.Way manual in a time bound manner.

(vi) For regular operation in loaded condition of BOXNRHS wagon, Railway shall ensure all the speed restrictions mentioned in para 2.2.4.2 (ii), (iii) & (iv) of RDSO's Final Speed Certificate No. MW/SPD/BG/BOXNRHS, Dated 11.09.2019 after incorporating modified paras upto Amendment no. 2 Dated 12.11.2020.

(vii) Location of bridges on which speed restrictions have been imposed shall be notified by the Railways and incorporated in the working timetable so that all operating staff is aware of the instructions.

(viii) Adequate number of WILD and 'Weigh Bridges' shall be progressively installed and their working closely monitored. 100% weighment of loaded wagons except consignments exempted from weighment shall be ensured at the loading points to avoid running of overloaded wagons on track.

(ix) As per Clause 2.1.2.1(i)of RDSO's FSC No. MW/SPD/BG/BOXNRHS, Dated 11.09.2019 after incorporating modified paras up to Amendment No. 2 dated 12.11.2020, for operation in Loaded condition up to 60 kmph for minimum standard of 52kg (90UTS) rail, De-stressing temperature for LWR in Temperature Zone IV would be reduced by 5 ^{0}C (Tm to Tm+5).
Further, as per clause 2.1.2.2(i) for operation in Loaded condition for speed above 60 kmph and up to 75 kmph for minimum standard of 60kg (90UTS) rail, for temperature Zone IV as per IRPWM, de-stressing of LWR at reduced temperature (Tm to Tm+5) shall be completed before onset of winter season. **If De-stressing in Zone IV is not done at lower temperature, loaded wagon will run at 60 kmph during the winter period of 1 st November to 28th /29th of February of next calendar year.**

(x) No overdue in track/rolling stock maintenance shall be permitted.

(xi) Right powering of loaded trains running with 22.82t axle loaded wagons shall be ensured. Traction power supply shall be suitably augmented to cater for additional load.

(xii) When the wagon is being moved, it shall be ensured that all protruding parts are withdrawn and suitably locked, so that during the run there is no possibility of any infringement occurring to the standard moving dimensions

(xiii) The heap of loading should not exceed the Diagram No. 1D of Indian Railway Schedule of Dimensions (BG) Revised 2004.

(xiv) Brakes of the locomotive and the rake of the wagons shall be in good working order during the operation.

Prem Sagar
27.01.21

(xv) Before initiating the operation, PCME of the concerned Railway shall arrange to certify the track worthiness and ensure safety of rolling stock. Proper maintenance of the rolling stock shall also be ensured.

(B) This supersedes Railway Board's letter no. 2020/CEDO/SR/02 Dated 30.04.2020.

Prem Sagar
27.01.21
(प्रेम सागर गुप्ता)
कार्यकारी निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड
[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement no. Q-12011/16/2019-20-T.W., dated 17.12.2020
2. The Commissioner of Railway Safety, all circle
3. Executive Director (Standards)Motive Power, RDSO, Lucknow
4. Executive Director (Standards)Track-I, RDSO, Lucknow
5. Executive Director ME(Fr) , Railway Board

Prem Sagar
27.01.21
(प्रेम सागर गुप्ता)
कृते, सचिव रेलवे बोर्ड

FTS 3338371

240

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
रेलवे बोर्ड Railway Board

No. 2020/CEDO/SR/31 New Delhi, Dated 27.01.2021

The Director General
Research Designs & Standards
Organisation, Manak Nagar,
Lucknow-226011.

Managing Director,DFCCIL,
5th Floor, Pragati Maidan,
Metro Station Building
Complex,
New Delhi – 110001.

The General Manager,
All Indian Railways

Sub:- Running of Broad Gauge Bogie Open wagon type **'BOSTHSM-2'** [Maximum Axle Load: **22.32t]** to RDSO's Drawing no. WD-08032-S-01 Alt.-3 upto a **maximum speed of 100 kmph in Empty and 75 kmph in Loaded condition, over IR BG routes** *by Zonal Railways* and upto ***100 kmph in both empty and loaded conditions, over routes of Eastern and Western Dedicated Freight Corridors (DFCs) by DFCCIL***

Ref:- (i) RDSO's letter No. MW/SPD/BG/BOSTHSM2, Dated 06.11.2020
(ii) CCRS's letter No. Q.13011/15/2009-T.W., Dated 18.12.20

(A) With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction/re-validation of Broad Gauge Bogie Open wagon type **'BOSTHSM-2'** [Maximum Axle Load: **22.32t]** to RDSO's Drawing no. WD-08032-S-01 Alt.-3 upto a maximum speed of **100 kmph in Empty and 75 kmph in Loaded condition, over IR BG routes by Zonal Railways** and upto ***100 kmph in both empty and loaded conditions,*** *over routes of Eastern and Western Dedicated Freight Corridors (DFCs) by DFCCIL*, with following stipulations :

(i) Observance of all conditions laid down in RDSO's Final Speed Certificate Nos. MW/SPD/BG/BOSTHSM2, Dated 19.08.2020 with Amendments no. 1 & 2 dated 29.10.2020 & 18.11.2020 respectively, for operation up to a maximum speed of 75 kmph in loaded condition and 100 kmph in empty condition over IR BG routes and upto 100 kmph in both empty and loaded conditions over routes of Eastern and Western Dedicated Freight Corridors (DFCs), shall be ensured on the Railway, while seeking the sanction of General Manager/ MD DFCCIL, as the case may be, for introduction of rolling stock on the Railway/DFC. All the documents required for the sanction of General Manager as per CE(G) Directorate/Railway Board Policy Circular No. 6, dated 31.10.2018, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure.

(ii) DFCCIL shall introduce wagon over DFCs as per Railway Board's letter no. 2017/Infra/6/33 dated 18.09.2019 on the subject 'Operation of Rolling stock on DFC'.

ISSUE PLS
2/2/2021

O/C Prem Sagar
27.01.21

(iii) In terms of Railway Board letter No. 2020/CE-II/TS/22.82 dt 20.08.2020, General Manager of Zonal Railway shall identify the route for operation of (CC+8+2)t/ (CC+6+2)t axle load wagon at 75kmph.

(iv) Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.

(v) CC+8+2 routes will be prioritized for rail grinding at stipulated frequency depending upon the availability of rail grinding machines over Indian Railway. However, rail grinding is not a prerequisite for operation of CC+8+2 / 22.9t axle load trains at 75 kmph.

(vi) Railway should ensure installation of way side lubricators as per provision of IR P.Way manual in a time bound manner.

(vii) For regular operation in loaded condition of BOSTHSM-2 wagons over IR routes, Railway shall ensure all the speed restrictions mentioned in para 3.2.3.2 (ii) of *RDSO's FSC No.* MW/SPD/BG/BOSTHSM2, Dated 19.08.2020 *after incorporating modified paras upto Amendment no. 2 dated 18.11.2020.*

(viii) Location of bridges on which speed restrictions have been imposed shall be notified by the Railways/DFCCIL and incorporated in the working timetable so that all operating staff is aware of the instructions.

(ix) Adequate number of WILD and 'Weigh Bridges' shall be progressively installed and their working closely monitored. 100% weighment of loaded wagons (except consignments exempted from weighment) shall be ensured at the loading points to avoid running of overloaded wagons on track..

(x) No overdue in track/rolling stock maintenance shall be permitted.

(xi) Right powering of loaded trains running with CC+6+2/22.32t axle loaded wagons shall be ensured. Traction power supply shall be suitably augmented to cater for additional load.

(xii) When the wagon is being moved, it shall be ensured that all protruding parts are withdrawn and suitably locked, so that during the run there is no possibility of any infringement occurring to the standard moving dimensions.

(xiii) The heap of loading should not exceed the Diagram No. 1D of Indian Railway Schedule of Dimensions (BG) Revised 2004.

(xiv) Brakes of the locomotive and the rake of the BOSTHSM2 wagons shall be in good working order during the operation.

(xv) Before initiating the operation, PCME of the concerned Railway/GGM (Mechanical) of the DFCCIL shall arrange to certify the track worthiness and ensure safety of rolling stock. Proper maintenance of the rolling stock shall also be ensured.

For Indian Railways:

(xvi) As per Clause 3.1.1.2(A)(i)(a) of RDSO's FSC No. MW/SPD/BG/BOSTHSM2, Dated 29.10.2020 after incorporating modified paras up to Amendment No. 2 dated 18.11.20, for operation in Loaded condition up to 60 kmph for minimum standard of 52kg (90UTS) rail, De-stressing temperature for LWR in Temperature Zone IV would be reduced by 5 ^{0} C (Tm to Tm+5).

Further, as per clause 3.1.1.2(B)(i) for operation in Loaded condition for speed above 60 kmph and up to 75 kmph for minimum standard of 60kg (90UTS) rail, for temperature Zone IV as per IRPWM, de-stressing of LWR at reduced

D/c Prem Sagar
27.01.21

temperature (Tm to Tm+5) shall be completed before onset of winter season. If De-stressing in Zone IV is not done at lower temperature, loaded wagon will run at 60 kmph during the winter period of 1 st November to 28th /29th of February of next calendar year.

242

(B) This supersedes Railway Board's Letter No. 2009/CEDO/SR/28, dated 24.09.2009.

Prem Sagar
27.01.21
o/c
(प्रेमसागरगुप्ता)
कार्यकारीनिदेशकसिविलइंजी.(जी)/रेलवेबोर्ड
[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement no. Q.13011/15/2009-T.W(Part)., Dated 18.12.2020
2. Executive Director (Standards)Motive Power, RDSO, Lucknow
3. Executive Director (Standards)Track-I, RDSO, Lucknow
4. Executive Director ME(Fr) , Railway Board

o/c Prem Sagar
27.01.21
(प्रेमसागरगुप्ता)
कृते, सचिवरेलवेबोर्ड

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243

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
रेलवे बोर्ड Railway Board

No. 2020/CEDO/SR/32 **New Delhi, Dated 27.01.2021**

The Director General
Research Designs & Standards
Organisation, Manak Nagar,
Lucknow-226011.

Managing Director,DFCCIL,
5th Floor, Pragati Maidan,
Metro Station Building
Complex,
New Delhi – 110001.

The General Manager,
All Indian Railways

Sub:- Introduction of Broad Gauge Bogie Open wagon type **'BOSTHSM3'** [Maximum Axle Load: **22.32t**] to RDSO's Drawing no. WD-20014-S-01 Alt.-Nil upto a maximum speed of **100 kmph in Empty and 75 kmph in Loaded condition, over IR BG routes** *by Zonal Railways* and upto ***100 kmph in both empty and loaded conditions, over routes of Eastern and Western Dedicated Freight Corridors (DFCs)*** *by DFCCIL*

Ref:- (i) RDSO's letter No. MW/SPD/BG/BOSTHSM3, Dated 06.11.2020
(ii) CCRS's letter No. Q.12011/04/2020-21-T.W(Part)., Dated 18.12.20

With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of Broad Gauge Bogie Open wagon type **'BOSTHSM3'** [Maximum Axle Load: **22.32t**] to RDSO's Drawing no. WD-20014-S-01 Alt.-Nil upto a maximum speed of **100 kmph in Empty and 75 kmph in Loaded condition, over IR BG routes by Zonal Railways** and upto ***100 kmph in both empty and loaded conditions, over routes of Eastern and Western Dedicated Freight Corridors (DFCs) by DFCCIL***, with following stipulations :

(i) Observance of all conditions laid down in RDSO's Final Speed Certificate Nos. MW/SPD/BG/BOSTHSM3, Dated 20.08.2020 with Amendments no. 1 & 2 dated 29.10.2020 & 18.11.2020 respectively, for operation up to a maximum speed of 75 kmph in loaded condition and 100 kmph in empty condition over IR BG routes and upto 100 kmph in both empty and loaded conditions over routes of Eastern and Western Dedicated Freight Corridors (DFCs), shall be ensured on the Railway, while seeking the sanction of General Manager/MD DFCCIL, as the case may be, for introduction of rolling stock on the Railway. All the documents required for the sanction of General Manager as per CE(G) Directorate/Railway Board Policy Circular No. 6, dated 31.10.2018, along with sanction letter, shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure.

(ii) DFCCIL shall introduce wagon over DFCs as per Railway Board's letter no. 2017/Infra/6/33 dated 18.09.2019 on the subject 'Operation of Rolling stock on DFC'.

29/01/21

O/C
Prem Sagar
27.01.21

(iii) In terms of Railway Board letter No. 2020/CE-II/TS/22.82 dt 20.08.2020, General Manager of Zonal Railway shall identify the route for operation of (CC+8+2)t/ (CC+6+2)t axle load wagon at 75kmph.

(iv) Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.

(v) CC+8+2 routes will be prioritized for rail grinding at stipulated frequency depending upon the availability of rail grinding machines over Indian Railway. However, rail grinding is not a prerequisite for operation of CC+8+2 / 22.9t axle load trains at 75 kmph.

(vi) Railway should ensure installation of way side lubricators as per provision of IR P.Way manual in a time bound manner.

(vii) For regular operation in loaded condition of BOSTHSM3 wagons over IR routes, Railway shall ensure all the speed restrictions mentioned in para 3.2.2.3 (b) of *RDSO's FSC No.* MW/SPD/BG/BOSTHSM3, Dated 20.08.2020 *after incorporating modified paras upto Amendment no. 2 dated 18.11.2020.*

(viii) Location of bridges on which speed restrictions have been imposed shall be notified by the Railways/DFCCIL and incorporated in the working timetable so that all operating staff is aware of the instructions.

(ix) Adequate number of WILD and 'Weigh Bridges' shall be progressively installed and their working closely monitored. 100% weighment of loaded wagons (except consignments exempted from weighment) shall be ensured at the loading points to avoid running of overloaded wagons on track.

(x) No overdue in track/rolling stock maintenance shall be permitted.

(xi) Right powering of loaded trains running with CC+6+2/22.32t axle loaded wagons shall be ensured. Traction power supply shall be suitably augmented to cater for additional load.

(xii) When the wagon is being moved, it shall be ensured that all protruding parts are withdrawn and suitably locked, so that during the run there is no possibility of any infringement occurring to the standard moving dimensions.

(xiii) The heap of loading should not exceed the Diagram No. 1D of Indian Railway Schedule of Dimensions (BG) Revised 2004.

(xiv) Brakes of the locomotive and the rake of the BOSTHSM2 wagons shall be in good working order during the operation.

(xv) Before initiating the operation, PCME of the concerned Railway/GGM (Mechanical) of the DFCCIL shall arrange to certify the track worthiness and ensure safety of rolling stock. Proper maintenance of the rolling stock shall also be ensured.

<u>For Indian Railways:</u>

(xvi) As per Clause 3.1.1.2(A)(a) of RDSO's FSC No. MW/SPD/BG/BOSTHSM3, Dated 20.08.2020 after incorporating modified paras up to Amendment No. 2 dated 18.11.20, for operation in Loaded condition up to 60 kmph for minimum standard of 52kg (90UTS) rail, De-stressing temperature for LWR in Temperature Zone IV would be reduced by 5 ^{0} C (Tm to Tm+5).

Further, as per clause 3.1.1.2 (i) for operation in Loaded condition for speed above 60 kmph and up to 75 kmph for minimum standard of 60kg (90UTS) rail, for temperature Zone IV as per IRPWM, de-stressing of LWR at reduced

o/c Prem Sagar
-2.01.21

temperature (Tm to Tm+5) shall be completed before onset of winter season. ***If De-stressing in Zone IV is not done at lower temperature, loaded wagon will run at 60 kmph during the winter period of 1st November to 28th /29th of February of next calendar year.***

245

Prem Sagar
27.01.21

o/c

(प्रेमसागरगुप्ता)
कार्यकारीनिदेशकसिविलइंजी.(जी)/रेलवेबोर्ड
[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement no. Q.12011/04/2020-21-T.W(Part), dated 18.12.2020
2. Executive Director (Standards)Motive Power, RDSO, Lucknow
3. Executive Director (Standards)Track-I, RDSO, Lucknow
4. Executive Director ME(Fr), Railway Board

Prem Sagar
27.01.21

o/c

(प्रेमसागरगुप्ता)
कृते, सचिवरेलवेबोर्ड

FTS 3336334

(246)

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
रेलवे बोर्ड Railway Board

No. 2020/CEDO/SR/19 **New Delhi, dated 27.01.2021**

The Director General,
RDSO,
Manak Nagar, -226011

The General Manager,
All Indian Railways

Managing Director,
DFCCL, 5th Floor, Pragati
Maidan, Metro Station
Building Complex,
New Delhi - 110001

Sub:- Introduction of BG Bogie Flat Steel wagon type **'BRNAM1'** [Maximum Axle Load: **20.32t**] to RDSO's Drawing no. WD-92004-S-02 Alt.6 having maximum speed of **100 kmph in Empty and Loaded condition,** by Zonal Railways, over IR BG routes and Eastern Dedicated Freight Corridor (EDFC) & Western Dedicated Freight Corridor (WDFC) of DFCCIL routes.

Ref:- (i) RDSO's letter No. MW/BRNA, dated 13.08.2020
(ii) CCRS's letter No. S.15019/01/2015-16-T.W., dated 03.11.2020

With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of BG Bogie Flat Steel wagon type **'BRNAM1'** [Maximum Axle Load: **20.32t**] to RDSO's Drawing no. WD-92004-S-02 Alt.6 up to maximum speed of **100 kmph in both, Empty and Loaded condition, by Zonal Railways,** over IR BG routes by Zonal Railways and Eastern Dedicated Freight Corridor (EDFC) & Western Dedicated Freight Corridor (WDFC) by DFCCIL, with Board's stipulations as under :

A. **Conditions for operation over IR routes:**

i) Observance of all conditions laid down in RDSO's Final Speed Certificate No. MW/BRNA, Dated 07.08.2020 for operation up to a maximum speed of 100 kmph in empty and loaded conditions, shall be ensured on the Railway while seeking the sanction of General Manager, for introduction of rolling stock on the Railway. All the documents required for the sanction of General Manager as per CE(G) Directorate/Railway Board Policy Circular No. 6, dated 31.10.2018, along with sanction letter,shall be submitted to the Commission before the start of actual operation of rolling stock, as per extant procedure

ii) Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.

iii) Location of bridges on which speed restrictions have been imposed shall be notified by the Railways and incorporated in the working timetable so that all operating staff are aware of the instructions.

iv) Brakes of the rake of the wagons shall be in good working order during the operation.

ISSUE PLS
2/2/2021

O/C Prem Sagar
27.01.21

v) Before initiating the operation, PCME of the concerned Railway shall arrange to certify the track worthiness and ensure safety of rolling stock. Proper maintenance of the rolling stock shall also be ensured.

vi) When the wagon is being moved, it shall be ensured that all the protruding parts are withdrawn and suitably locked, so that during the run there is no possibility of any infringement occurring to the standard moving dimensions.

B. Conditions for operation over DFCCIL routes:

i) Observance of all conditions laid down in RDSO's Final Speed Certificate No. MW/BRNA, Dated 07.08.2020 for operation up to the maximum speed of 100 kmph in Empty and Loaded both conditions, shall be ensured while seeking the sanction of MD/DFCCIL, for introduction of rolling stock on DFC routes.

ii) DFCCIL shall introduce wagon over DFCs as per Railway Board's letter no. 2017/Infra/6/33 dated 18.09.2019 on the subject 'Operation of Rolling stock on DFC'.

iii) Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.

iv) Location of bridges on which speed restrictions have been imposed shall be notified by DFCCIL and incorporated in the working timetable so that all operating staff aware of the instructions.

v) Brakes of the rake of the wagons shall be in good working order during the operation.

vi) Before initiating the operation, the GGM (Mechanical) of the DFCCIL shall arrange to certify the track worthiness and ensure safety of rolling stock. Proper maintenance of the rolling stock shall also be ensured.

Prem Sagar
27.01.21
o/c (प्रेम सागर गुप्ता)
कार्यकारी निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड
[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement no. S.15019/01/2015-16-T.W., dated 03.11.2020
2. Executive Director (Standards)Motive Power, RDSO, Lucknow
3. Executive Director (Standards) Track-I, RDSO, Lucknow
4. Executive Director ME(Fr) , Railway Board

Prem Sagar
27.01.21
o/c (प्रेम सागर गुप्ता)
कृते, सचिव रेलवे बोर्ड

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भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
रेलवे बोर्ड Railway Board

248

No. 2021/CEDO/SR/06(DFC) **New Delhi, Dated 27.01.2021**

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Managing Director, DFCCIL,
5th Floor, Pragati Maidan,
Metro Station Building Complex,
New Delhi – 110001.

Sub:- Introduction of Broad Gauge Bogie Open wagon type **'BOXNRHS' [Maximum Axle Load: 22.9t]** to RDSO's Drawing no. WD-07001-S-02 Alt.12 up to a maximum speed of **100 kmph in Empty and Loaded condition** on Eastern and Western Dedicated Freight Corridors of DFCCIL

Ref:- (i) RDSO's letter No. MW/SPD/BG/BOXNRHS/DFC, dated 19.02.2020

(ii) CCRS's letter No. Q.12011/16/2019-20-T.W., dated 06.01.2021

With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of Broad Gauge Bogie Open wagon type **'BOXNRHS' [Maximum Axle Load: 22.9t]** to RDSO's Drawing no. WD-07001-S-02 Alt.12 up to a **maximum speed of 100 kmph in Empty and Loaded condition** on Eastern and Western Dedicated Freight Corridors (DFCs), *by DFCCIL*, with the following stipulations :

i. **DFCCIL** shall introduce wagon over DFCs as per Railway Board's letter no. 2017/Infra/6/33 dated 18.09.2019 on the subject 'Operation of Rolling stock on DFC'.

ii. Observance of all conditions laid down in RDSO's Final Speed Certificate No. MW/SPD/BG/BOXNRHS, dated 07.01.2020 up to latest Amendment no. 2 dated 03.09.2020 for operation up to a maximum speed of **100 kmph in Empty and Loaded condition** over routes of Eastern and Western Dedicated Freight Corridors (DFCs), shall be ensured, while seeking the sanction of MD DFCCIL.

iii. DFCCIL has also been advised to take certain maintenance measures vide Railway Board's DO letter no.2011/CE-II/TS/DFC dated 15.10.2018. DFCCIL would ensure the mitigating measures as included in the letter.

iv. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.

v. Periodic rail grinding at stipulated frequency should be carried out on routes by ensuring the availability of traffic blocks, as per instruction issued by Railway Board/DFCCIL time to time. However, rail grinding is not a prerequisite for operation of CC+8+2/22.9t loaded train.

vi. DFCCIL should ensure installation of way side lubricators in a time bound manner.

29/01/21

o/c Prem Sagar
27.01.21

vii. Location of bridges on which speed restrictions have been imposed shall be notified by the DFCCIL and incorporated in the working timetable. DFCCIL shall also ensure that these are effectively communicated to all concerned in the field.

viii. Installation of WILD would be planned for monitoring of dynamic performance parameters of rolling stock for taking further necessary action. 'Weigh Bridges' shall be progressively installed and their working closely monitored. 100% weighment of loaded wagons except consignments exempted from weighment shall be ensured at the loading points to avoid running of overloaded wagons on track.

ix. No overdue in track/rolling stock maintenance shall be permitted.

x. Right powering of loaded trains running with 22.9t/22.82t axle loaded wagons shall be ensured.

xi. When the wagon is being moved, it shall be ensured that all the protruding parts are withdrawn and suitably locked, so that during the run there is no possibility of any infringement occurring to the standard moving dimensions.

xii. Brakes of the locomotive and the rake of the wagons shall be in good working order during the operation.

xiii. Before initiating the operation, the GGM (Mechanical) of the DFCCIL shall arrange to certify the track worthiness and ensure safety of rolling stock. Proper maintenance of the rolling stock shall also be ensured.

Prem Sagar
27.01.21
o/c
(प्रेमसागरगुप्ता)
कार्यकारीनिदेशकसिविलइंजी.(जी)/रेलवेबोर्ड
[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement no. Q.12011/16/2019-20-T.W., dated 06.01.2021
2. Executive Director (Standards)Motive Power, RDSO, Lucknow
3. Executive Director (Standards)Track-I, RDSO, Lucknow
4. Executive Director ME(Fr) , Railway Board

Prem Sagar
27.01.21
o/c
(प्रेमसागरगुप्ता)
कृते, सचिवरेलवेबोर्ड

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भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
रेलवे बोर्ड Railway Board

No. 2021/CEDO/SR/05(DFC) **New Delhi, Dated 27.01.2021**

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Managing Director, DFCCIL,
5th Floor, Pragati Maidan,
Metro Station Building Complex,
New Delhi – 110001.

Sub:- Introduction of Broad Gauge Bogie Open wagon type **'BOXNR' [Maximum Axle Load: 22.9t]** to RDSO's Drawing no. WD-07001-S-02 Alt.12 up to a maximum speed of **100 kmph in Empty and Loaded condition** on Eastern and Western Dedicated Freight Corridors of DFCCIL

Ref:-(i) RDSO's letter No. MW/SPD/BG/BOXNR/DFC, dated 19.02.2020

(ii) CCRS's letter No. Q.12011/17/2019-20-T.W., dated 06.01.2021

With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of Broad Gauge Bogie Open wagon type **'BOXNR' [Maximum Axle Load: 22.9t]** to RDSO's Drawing no. WD-07001-S-02 Alt.12 up to a **maximum speed of 100 kmph in Empty and Loaded condition** on Eastern and Western Dedicated Freight Corridors (DFCs), *by DFCCIL*, with the following stipulations :

i. **DFCCIL** shall introduce wagon over DFCs as per Railway Board's letter no. 2017/Infra/6/33 dated 18.09.2019 on the subject 'Operation of Rolling stock on DFC'.

ii. Observance of all conditions laid down in RDSO's Final Speed Certificate No. MW/SPD/BG/BOXNR, dated 07.01.2020 up to latest Amendment no. 2 dated 03.09.2020 for operation up to a maximum speed of **100 kmph in Empty and Loaded condition** over routes of Eastern and Western Dedicated Freight Corridors (DFCs), shall be ensured, while seeking the sanction of MD DFCCIL.

iii. DFCCIL has also been advised to take certain maintenance measures vide Railway Board's DO letter no.2011/CE-II/TS/DFC dated 15.10.2018. DFCCIL would ensure the mitigating measures as included in the letter.

iv. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.

v. Periodic rail grinding at stipulated frequency should be carried out on routes by ensuring the availability of traffic blocks, as per instruction issued by Railway Board/DFCCIL time to time. However, rail grinding is not a prerequisite for operation of CC+8+2/22.9t loaded train.

29/01/21

D/c Prem Sagar
27.01.21

vi. DFCCIL should ensure installation of way side lubricators in a time bound manner.

vii. Location of bridges on which speed restrictions have been imposed shall be notified by the DFCCIL and incorporated in the working timetable. DFCCIL shall also ensure that these are effectively communicated to all concerned in the field.

viii. Installation of WILD would be planned for monitoring of dynamic performance parameters of rolling stock for taking further necessary action. 'Weigh Bridges' shall be progressively installed and their working closely monitored. 100% weighment of loaded wagons except consignments exempted from weighment shall be ensured at the loading points to avoid running of overloaded wagons on track.

ix. No overdue in track/rolling stock maintenance shall be permitted.

x. Right powering of loaded trains running with 22.9t/22.82t axle loaded wagons shall be ensured.

xi. When the wagon is being moved, it shall be ensured that all the protruding parts are withdrawn and suitably locked, so that during the run there is no possibility of any infringement occurring to the standard moving dimensions.

xii. Brakes of the locomotive and the rake of the wagons shall be in good working order during the operation.

xiii. Before initiating the operation, the GGM (Mechanical) of the DFCCIL shall arrange to certify the track worthiness and ensure safety of rolling stock. Proper maintenance of the rolling stock shall also be ensured.

Prem Sagar
27.01.21
o/c (प्रेमसागरगुप्ता)
कार्यकारीनिदेशकसिविलइंजी.(जी)/रेलवेबोर्ड
[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement no. Q.12011/17/2019-20-T.W., dated 06.01.2021
2. Executive Director (Standards)Motive Power, RDSO, Lucknow
3. Executive Director (Standards)Track-I, RDSO, Lucknow
4. Executive Director ME(Fr) , Railway Board

Prem Sagar
27.01.21
o/c (प्रेमसागरगुप्ता)
कृते, सचिवरेलवेबोर्ड

3340358

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भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
रेलवे बोर्ड Railway Board

No. 2021/CEDO/SR/04(DFC) **New Delhi, Dated 27.01.2021**

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Managing Director, DFCCIL,
5th Floor, Pragati Maidan,
Metro Station Building Complex,
New Delhi – 110001.

Sub:- Introduction of Broad Gauge Bogie Open wagon type **'BOXNM2' [Maximum Axle Load: 22.82t]** to RDSO's Drawing no. WD-05084-S-02 Alt.6 up to a maximum speed of **100 kmph in Empty and Loaded condition** on Eastern and Western Dedicated Freight Corridors of DFCCIL

Ref:- (i) RDSO's letter No. MW/SPD/BG/BOXNM2/DFC, dated 19.02.2020
(ii) CCRS's letter No. Q.12011/19/2019-20-T.W., dated 06.01.2021

With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for Introduction of Broad Gauge Bogie Open wagon type **'BOXNM2' [Maximum Axle Load: 22.82t]** to RDSO's Drawing no. WD-05084-S-02 Alt.6 up to a **maximum speed of 100 kmph in Empty and Loaded condition** on Eastern and Western Dedicated Freight Corridors *(DFCs) by DFCCIL*, with the following stipulations :

i. **DFCCIL** shall introduce wagon over DFCs as per Railway Board's letter no. 2017/Infra/6/33 dated 18.09.2019 on the subject 'Operation of Rolling stock on DFC'.

ii. Observance of all conditions laid down in RDSO's Final Speed Certificate No. MW/SPD/BG/BOXNM2, dated 07.01.2020 up to latest Amendment no. 2 dated 03.09.2020 for operation up to a maximum speed of **100 kmph in Empty and Loaded condition** over routes of Eastern and Western Dedicated Freight Corridors (DFCs), shall be ensured while seeking the sanction of MD DFCCIL.

iii. DFCCIL has also been advised to take certain maintenance measures vide Railway Board's DO letter no.2011/CE-II/TS/DFC dated 15.10.2018. DFCCIL would ensure the mitigating measures as included in the letter.

iv. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.

v. Periodic rail grinding at stipulated frequency should be carried out on routes by ensuring the availability of traffic blocks, as per instruction issued by Railway Board/DFCCIL time to time. However, rail grinding is not a prerequisite for operation of CC+8+2/22.9 t loaded train.

vi. DFCCIL should ensure installation of way side lubricators in a time bound manner.

29/01/21

o/c Prem Sagar
27.01.21

vii. Location of bridges on which speed restrictions have been imposed shall be notified by the DFCCIL and incorporated in the working timetable. DFCCIL shall also ensure that these are effectively communicated to all concerned in the field.

viii. Installation of WILD would be planned for monitoring of dynamic performance parameters of rolling stock for taking further necessary action. 'Weigh Bridges' shall be progressively installed and their working closely monitored. 100% weighment of loaded wagons except consignments exempted from weighment shall be ensured at the loading points to avoid running of overloaded wagons on track.

ix. No overdue in track/rolling stock maintenance shall be permitted.

x. Right powering of loaded trains running with 22.9t/22.82t axle loaded wagons shall be ensured.

xi. When the wagon is being moved, it shall be ensured that all the protruding parts are withdrawn and suitably locked, so that during the run there is no possibility of any infringement occurring to the standard moving dimensions.

xii. Brakes of the locomotive and the rake of the wagons shall be in good working order during the operation.

xiii. Before initiating the operation, the GGM (Mechanical) of the DFCCIL shall arrange to certify the track worthiness and ensure safety of rolling stock. Proper maintenance of the rolling stock shall also be ensured.

Prem Sagar
27.01.21
o/c
(प्रेमसागरगुप्ता)
कार्यकारीनिदेशकसिविलइंजी.(जी)/रेलवेबोर्ड
[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement no. Q.12011/19/2019-20-T.W., dated 06.01.21
2. Executive Director (Standards)Motive Power, RDSO, Lucknow
3. Executive Director (Standards)Track-I, RDSO, Lucknow
4. Executive Director ME(Fr) , Railway Board

Prem Sagar
27.01.21
o/c
(प्रेमसागरगुप्ता)
कृते, सचिवरेलवेबोर्ड

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भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
रेलवे बोर्ड Railway Board

No. 2021/CEDO/SR/03(DFC) **New Delhi, Dated 27.01.2021**

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Managing Director, DFCCIL,
5th Floor, Pragati Maidan,
Metro Station Building Complex,
New Delhi – 110001.

Sub:- Introduction of Broad Gauge Bogie Open wagon type **'BOXNHSM2' [Maximum Axle Load: 22.82t]** to RDSO's Drawing no. WD-05084-S-01 Alt.7 up to a maximum speed of **100 kmph in Empty and Loaded condition** on Eastern and Western Dedicated Freight Corridors of DFCCIL

Ref:- (i) RDSO's letter No. MW/SPD/BG/BOXNHSM2/DFC, Dated 19.02.2020

(ii) CCRS's letter No. Q.12011/20/2019-20-T.W., Dated 06.01.2021

With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of Broad Gauge Bogie Open wagon type **'BOXNHSM2' [Maximum Axle Load: 22.82t]** to RDSO's Drawing no. WD-05084-S-01 Alt.7 up to a maximum speed of **100 kmph in Empty and Loaded condition** on Eastern and Western Dedicated Freight Corridors (DFCs), *by DFCCIL*, with the following stipulations :

(i) **DFCCIL** shall introduce wagon over DFCs as per Railway Board's letter no. 2017/Infra/6/33 dated 18.09.2019 on the subject 'Operation of Rolling stock on DFC'.

(ii) Observance of all conditions laid down in RDSO's Final Speed Certificate No. MW/SPD/BG/BOXNHSM2, dated 07.01.2020 up to latest Amendment no. 2 dated 03.09.2020 for operation up to a maximum speed of 100 kmph in Empty and Loaded condition **over routes of Eastern and Western Dedicated Freight Corridors (DFCs)**, shall be ensured, while seeking the sanction of MD DFCCIL.

(iii) DFCCIL has also been advised to take certain maintenance measures vide Railway Board's DO letter no.2011/CE-II/TS/DFC dated 15.10.2018. DFCCIL would ensure the mitigating measures as included in the letter.

(iv) Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.

(v) Periodic rail grinding at stipulated frequency should be carried out on routes by ensuring the availability of traffic blocks, as per instruction issued by Railway Board/DFCCIL time to time. However, rail grinding is not a prerequisite for operation of CC+8+2/22.9t loaded train.

29/01/21

D/C Prem Sagar
27.01.21

(vi) DFCCIL should ensure installation of way side lubricators in a time bound manner.

(vii) Location of bridges on which speed restrictions have been imposed shall be notified by the DFCCIL and incorporated in the working timetable. DFCCIL shall also ensure that these are effectively communicated to all concerned in the field.

(viii) Installation of WILD would be planned for monitoring of dynamic performance parameters of rolling stock for taking further necessary action. 'Weigh Bridges' shall be progressively installed and their working closely monitored. 100% weighment of loaded wagons except consignments exempted from weighment shall be ensured at the loading points to avoid running of overloaded wagons on track.

(ix) No overdue in track/rolling stock maintenance shall be permitted.

(x) Right powering of loaded trains running with 22.9t/22.82t axle loaded wagons shall be ensured.

(xi) When the wagon is being moved, it shall be ensured that all the protruding parts are withdrawn and suitably locked, so that during the run there is no possibility of any infringement occurring to the standard moving dimensions.

(xii) Brakes of the locomotive and the rake of the wagons shall be in good working order during the operation.

(xiii) Before initiating the operation, the GGM (Mechanical) of the DFCCIL shall arrange to certify the track worthiness and ensure safety of rolling stock. Proper maintenance of the rolling stock shall also be ensured.

Prem Sagar
27.01.21
o/c (प्रेमसागरगुप्ता)
कार्यकारीनिदेशकसिविलइंजी.(जी)/रेलवेबोर्ड
[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement no. Q.12011/20/2019-20-T.W., Dated 06.01.2021
2. Executive Director (Standards)Motive Power, RDSO, Lucknow
3. Executive Director (Standards)Track-I, RDSO, Lucknow
4. Executive Director ME(Fr) , Railway Board

Prem Sagar
27.01.21
o/c (प्रेमसागरगुप्ता)
कृते, सचिवरेलवेबोर्ड

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भारतसरकार **Government of India**
रेलमंत्रालय **Ministry of Railways**
(रेलवेबोर्ड) **(Railway Board)**

No. 2021/CEDO/SR/02(DFC) **New Delhi, Dated 25.01.2021**

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

Managing Director,
DFCCIL,
5th Floor, Pragati Maidan,
Metro Station Building
Complex,
New Delhi – 110001.

Sub:- Introduction of Broad Gauge Bogie Open wagon type **'BOXNHL' [Maximum Axle Load: 22.9t]** to RDSO's Drawing no. WD-05086-S-02 Alt.8 up to a maximum speed of **100 kmph in Empty and Loaded condition** on Eastern and Western Dedicated Freight Corridors of DFCCIL by DFCCIL

Ref:- (i) RDSO's letter No. MW/SPD/BG/BOXNHL/DFC, Dated 19.02.2020
(ii) RDSO's Final Speed Certificate No. MW/SPD/BG/BOXNHL, dated 03.10.2019 and its Amendment no. 1 & 2, dated 21.08.2020 & 03.09.2020
(iii) CCRS's letter No. Q.13011/38/2009-T.W., Dated 06.01.2021

With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of Broad Gauge Bogie Open wagon type **'BOXNHL' [Maximum Axle Load: 22.9t]** to RDSO's Drawing no. WD-05086-S-02 Alt.8 up to a **maximum speed of 100 kmph in Empty and Loaded condition** on Eastern and Western Dedicated Freight Corridors *(DFCs) by DFCCIL*, with the following stipulations :

i. **DFCCIL** shall introduce wagon over DFCs as per Railway Board's letter No. 2017/Infra/6/33 dated 18.09.2019 on the subject 'Operation of Rolling stock on DFC'.

ii. Observance of all conditions laid down in RDSO's Final Speed Certificate No. MW/SPD/BG/BOXNHL, dated 03.10.2019 up to latest Amendment no. 2 dated 03.09.2020 for operation up to a maximum speed of **100 kmph in Empty and Loaded condition** over routes of Eastern and Western Dedicated Freight Corridors (DFCs), shall be ensured, while seeking the sanction of MD DFCCIL.

iii. DFCCIL has also been advised to take certain maintenance measures vide Railway Board's DO letter no.2011/CE-II/TS/DFC dated 15.10.2018. DFCCIL would ensure the mitigating measures as included in the letter.

iv. Observance of all the permanent and temporary speed restrictions already in force and/or those that may be imposed from time to time on various accounts.

o/c Prem Sagar 25.01.21

v. Periodic rail grinding at stipulated frequency should be carried out on routes by ensuring the availability of traffic blocks, as per instruction issued by Railway Board/DFCCIL time to time. However, rail grinding is not a prerequisite for operation of CC+8+2/22.9 t loaded train.

vi. DFCCIL should ensure installation of way side lubricators in a time bound manner.

vii. Location of bridges on which speed restrictions have been imposed shall be notified by the DFCCIL and incorporated in the working timetable. DFCCIL shall also ensure that these are effectively communicated to all concerned in the field.

viii. Installation of WILD would be planned for monitoring of dynamic performance parameters of rolling stock for taking further necessary action. 'Weigh Bridges' shall be progressively installed and their working closely monitored. 100% weighment of loaded wagons except consignments exempted from weighment shall be ensured at the loading points to avoid running of overloaded wagons on track.

ix. No overdue in track/rolling stock maintenance shall be permitted.

x. Right powering of loaded trains running with 22.9t/22.82t axle loaded wagons shall be ensured.

xi. When the wagon is being moved, it shall be ensured that all the protruding parts are withdrawn and suitably locked, so that during the run there is no possibility of any infringement occurring to the standard moving dimensions.

xii. Brakes of the locomotive and the rake of the wagons shall be in good working order during the operation.

xiii. Before initiating the operation, the GGM (Mechanical) of the DFCCIL shall arrange to certify the track worthiness and ensure safety of rolling stock. Proper maintenance of the rolling stock shall also be ensured.

Prem Sagar
25.01.21
(प्रेमसागरगुप्ता)
कार्यकारीनिदेशकसिविलइंजी.(जी)/रेलवेबोर्ड
[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement no. Q.13011/38/2009-T.W., Dated 06.01.2021
2. Executive Director (Standards)Motive Power, RDSO, Lucknow
3. Executive Director (Standards)Track-I, RDSO, Lucknow
4. Executive Director ME(Fr) , Railway Board

28/01/21

Prem Sagar
25.01.21
(प्रेमसागरगुप्ता)
कृते, सचिवरेलवेबोर्ड

333 6332

भारत सरकार **Government of India**
रेल मंत्रालय **Ministry of Railways**
(रेलवे बोर्ड) (Railway Board)

258

No. 2020/CEDO/SR/21 New Delhi, dated 25.01.2021

The Director General,
RDSO,
Manak Nagar, -226011.

The General Manager,
All Indian Railways

Sub : Introduction of BG Bogie Open Wagon type **'BOXNHL25T'** having maximum **axle load of 25 T** over routes to be identified by GM of Zonal Railways and notified by Railway board at a **maximum speed up to 100 kmph in empty** and **45 kmph in loaded condition**, by Zonal Railways on Indian Railways track

Ref : (i) Final Speed Certificate no. MW/SPD/BG/BOXNHL25T, dated 30.10.2015 and Amendment No. 1 dated 04.11.2015
(ii) Railway Board letter No. 2019/CE-II/TS/25t dated 01.09.2020
(iii) CCRS letter No. Q.13011/01/2015-16-T.W, dated 29.10.2020, addressed to RDSO
(iv) CCRS letter no. M.15014/01/2017-18-T.W., dated 24.05.2017
(v) Railway Board's letter no. 2007/CE-II/TS/8 dated 02/04/2009
(vi) Railway Board's letter no. 2002/M(N)/960/1 Pt. dated 29/07/2008

Sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of BG Bogie Open Wagon type **'BOXNHL25T'** having maximum **axle load of 25T** over routes notified by Railway Board, at a **maximum speed up to 100 kmph in empty** and **45 kmph in loaded condition,** by Zonal Railways on Indian Railways track, subject to terms and conditions as given in RDSO's Final Speed Certificate (FSC) No. MW/SPD/BG/BOXNHL25T, Dated 30.10.15 read along with its Amendment no.1 issued vide RDSO's letter no. MW/SPD/BG/BOXNHL25T Dated 04.11.2015 for operation up to a maximum speed of 100 kmph in empty and 45 kmph in loaded condition with Board's stipulations as under:

i. Observance of all permanent and temporary speed restrictions already in force and/ or those that may be imposed from time to time on various accounts.

ii. WILDs need to be installed on priority and detachment / maintenance protocols on critical alarms as per JPO issued on WILD's vide Railway Board's letter no. 2002/M(N)/960/1 Pt. dated 29/07/2008 or as amended from time to time by Board (M/T&RS, MI and M/O&BD) to be followed. 25 ton axle load wagon can run on the above routes on 60 kg 90 UTS rail at 45 kmph, if WILD is installed and in working condition.

iii. Compulsory weighment of every rake along with action on overloaded wagons/rakes as per protocols of JPO issued on weigh bridges (2009) vide Railway Board's letter no. 2007/CE-II/TS/8 dated 02/04/2009 must be ensured. In all cases of unweighed rakes, except for the exempt category rakes, the

29/01/21

o/c Prem Sagar 25.01.21

existing instruction of running at restricted speeds upto next EIMWB should be strictly followed and these should be part of WTT in case not already so on any Zone. Also, whenever overloading is detected, load adjustment should be compulsorily done and certified so by the station/yard in charge of the location where load adjustment has been done.

iv. Adequate powering of train must be ensured and monitored by Zonal Railways.

v. Improvement to track structure, formation, bridges being accelerated in the nominated route.

vi. No overdue in track/rolling stock maintenance being permitted.

vii. Double distant signals being progressively provided in view of higher NBD/EBD

viii. Traction power supply being augmented to cater for additional load.

ix. GM of the Zonal railways shall identify the routes on which 25 ton axle load wagon can run, having 60 kg 90 UTS rail and other pre-requisite as mentioned above. Fitness of bridges should also be checked for running at 45 kmph. **However, these routes will be notified by Railway Board on the recommendation of Zonal Railways.**

Prem Sagar
25.01.21

o/c (प्रेम सागर गुप्ता)
कार्यकारी निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड
[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement no. M.15014/01/2017-18-T.W., dated 24.05.2017 & Q.13011/01/2015-16-T.W, dated 29.10.2020
2. The Commissioner of Railway Safety, All Circle
3. Executive Director (Standards) Motive Power, RDSO, Lucknow
4. Executive Director (Standards) Track-I, RDSO, Lucknow
5. Executive Director ME(Fr.), Railway Board

Prem Sagar
25.01.21

o/c (प्रेम सागर गुप्ता)
कृते, सचिव रेलवे बोर्ड

FTS - 3339304

260

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड) (Railway Board)

No. 2021/CEDO/SR/01 **New Delhi, dated 15.01.2021**

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011.

The General Manager,
All Indian Railways

Sub: Introduction of operation of LHB AC Vistadome coach [Unique Transportation Code: **LWCTZAC**; Maximum Axle Load: **16.25t**] fitted with pneumatic suspension (120 KN capacity) at the secondary stage on FIAT bogies to RDSO's Drawing no. CSC-1848 up to maximum speed of **160 kmph**, *by Zonal Railways,* on track maintained as per provisions of Indian Railway Permanent Way Manual, June 2020

Ref: Railway Board's letter No. **2021/CEDO/SR/01(1)** dated 08.01.2021

In Partial Modification of Railway Board's letter No. **2021/CEDO/SR/01(1)** dated 08.01.2021, Board has decided to modify the existing stipulations no. **'xv'** & **'xxiii'** as under:

xv. For running of train above 130 kmph, Zonal Railways shall ensure public announcements and demarcation through a yellow line on the platforms of run through lines, to alert passengers standing on such platforms.

xxiii. As only one end of the coach is having vestibule, Zonal Railway must ensure that these coaches are attached only at either end of the rake.

Issue Pls
15/1/2021

Prem Sagar 15.1.21
o/c (प्रेम सागर गुप्ता)
कार्यकारी निदेशक/ सिविल इंजी(जी)/ रेलवे बोर्ड
[Phone: 011-23383379; Rly no. 44803]
[Phone: 030-44803(Rly): 011-23383379(MTNL)]

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow
2. Executive Director (Standards)Motive Power, RDSO, Lucknow
3. Executive Director (Standards) Track-I, RDSO, Lucknow
4. Executive Director ME(Coaching) , Railway Board

15/01/21

Prem Sagar 15.1.21
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(261)

भारत सरकार Government of India

रेल मंत्रालय Ministry of Railways

रेलवे बोर्ड Railway Board

No. 2021/CEDO/SR/01(1) **New Delhi, dated 08.01.2021**

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011

The General Manager,
All Indian Railways

Sub: Introduction of operation of LHB AC Vistadome coach [Unique Transportation Code: **LWCTZAC**; Maximum Axle Load: **16.25t**] fitted with pneumatic suspension (120 KN capacity) at the secondary stage on FIAT bogies to RDSO's Drawing no. CSC-1848 up to maximum speed of **160 kmph**, *by Zonal Railways,* on track maintained as per provisions of Indian Railway Permanent Way Manual, June 2020

Ref: (i) RDSO's letter No. SV.FIAT(SC)/Sanction/LWCTZAC, dated 01.01.2021
(ii) RDSO's Final Speed Certificate (FSC) No. SV.FIAT(SC)/LWCTZAC/ 160 kmph, dated 01.01.2021
(iii) CCRS office's letter No. 12011/14/2020-21-T.W, dated 05.01.2021

With reference to RDSO above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board is hereby communicated for introduction of operation of LHB AC Vistadome coach [Unique Transportation Code: **LWCTZAC**; Maximum Axle Load: **16.25t**] fitted with pneumatic suspension (120 KN capacity) at the secondary stage on FIAT bogies to RDSO's Drawing No. CSC-1848 up to maximum speed of **160 kmph**, *by Zonal Railways,* on track maintained as per provisions of Indian Railway Permanent Way Manual, June 2020, containing track geometry standards under para 522 over Indian Railway system, with following stipulations :

i. Before introducing actual operation of LWCTZAC coaches, Railway shall fulfil all the conditions/stipulations given in RDSO's Final Speed Certificate No. SV.FIAT(SC)/LWCTZAC/160kmph, dated 01.01.2021 for operation up to a maximum speed of 160 kmph on track maintained as per provisions of Indian Railway Permanent Way Manual, June 2020, containing track geometry standards under para 522. **Remarks of the Railway against each para of the Speed Certificate shall be submitted to the Commission before the start of actual operation of rolling stock.**
ii. As per para 6.1.2 of Policy Circular-6 dated 31.10.2018, trains will be introduced in the sections at the speeds as per provision of General Rules 1976–Rule 4.08 1(a).
iii. Observance of all permanent and temporary speed restrictions already in force and /or those that may be imposed from time to time due to track, bridges, curves, signaling, interlocking, any specific local conditions etc.
iv. Location of bridges on which speed restrictions have been imposed shall be notified by the Railways and incorporated in the working timetable.

ISSUE Pls
8/1/2021

Pravin Sagar
08/01/21

v. For speed up to 130 kmph, Railway shall ensure provision of sturdy fencing at vulnerable locations to prevent accidents related to trespassing. Zonal Railways should also plan subways at suitable location to avoid trespass and ensure effectiveness of fencing provided.

For speed beyond 130 kmph and up to 160 kmph, Railway shall ensure provision of sturdy fencing all along the track to prevent accidents related to trespassing.

vi. Track geometry shall be monitored by Track Recording Car (TRC), Oscillograph Car and OMS at laid down frequency.

vii. Zonal Railway shall interpret the results of runs of OMS, TRC and Oscillograph Car and ensure corrective & preventive action, as considered necessary.

viii. Rail grinding at regular interval shall be done on the entire route for better riding behaviour and to avoid rail fracture/weld failures, as per instructions issued by Board from time to time.. Regular greasing of all the curves in the section shall be ensured.

ix. Stretches of existing weak formations (where permanent/temporary speed restriction is imposed), if any, shall be planned to be rehabilitated/strengthened first, before permitting higher speed.

x. All the provision contained in IRSEM Chapter VII, Section M, Para 7.131 (A&C slip no. 6) regarding standards of signalling and interlocking shall be complied with.

xi. Signalling to protect level crossings should be provided as per Section 'D' (Para 7.43 to 7.46), Chapter-VII of IRSEM. As per para 7.46.2 of IRSEM, there should be no LC gate within the Block Overlap (180m) from the Home signal. If it is there, Home signal should be relocated and placed beyond 180m. No new level crossing should be located within Signal/Block Overlap.

xii. Provision of Train Protection Warning System (TPWS) shall be ensured on the route for operation at 160 kmph.

xiii. Suitable and reliable communication shall be provided in the locomotive and guards van for communication between loco pilot, guard and adjacent station master.

xiv. Supervisors/officers shall not undertake push trolley inspection and working of rail dolly on the face of 160 kmph trains. Suitable guidelines shall be issued by the Railway in this regard.

xv. Railway shall ensure that run-through line is NOT the platform line.

xvi. Before initiating the operation, PCME of the concerned Railway shall certify the track worthiness and safety of the rolling stock.

xvii. In case air spring gets deflated, the speed shall be limited to 60 kmph. Failure Indication cum Brake Application (FIBA) device shall be provided in pneumatic circuit of Air Spring and Air Brake.

xviii. Brakes of the rolling stock shall be in good working order during the operation.

xix. The Wheel Slide Protection (WSP) device of all the coaches in the rake shall be 100% functional at the starting station.

xx. Proper maintenance of the Coach shall be ensured. Coach shall be maintained as per "Maintenance Manual for LHB Coaching Stock" issued by CAMTECH.

xxi. Before running of these coaches, Zonal Railways should assess the local conditions for safe operation at ghat sections/hilly terrain etc. especially during monsoon season.

xxii. Earthing in the coach body & all the panels shall always be properly maintained.

xxiii. As only one end of the coach is having vestibule, Zonal Railway must ensure that these coaches are attached only at the end of the rake.

xxiv. As stipulated in Railway Board's letter no. 97/M(C)/137/1 Volume-VI, dated 09.06.2004 and RDSO's Report no.CT-20 Rev.2 duly approved by Railway Board's letter no. 2014/CE-II/TK/HS dated 09.12.2014, the following maintenance facilities are required to be developed by Railways for operation at 160 kmph:

Prem Sagar
08.01.21

a. Well lighted all weather covered area for under gear examination and maintenance of sub-assemblies
b. Boundary wall for safety and security of the rake and the facilities
c. Automatic washing plant at entry point
d. Wheel profile measurement and re-profiling system
e. In-situ wheel changing facility
f. Automated and instrumented maintenance system in lieu of existing system based on visual inspection
g. A separate bay with capacity for lifting and change of complete bogie
h. Platform for attention to roof mounted AC equipments

o/c Prem Sagar
08.01.21
(प्रेम सागर गुप्ता)
कार्यकारी निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड
[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement no. 12011/14/2020-21-T.W, dated 05.01.2021
2. Executive Director (Standards)Motive Power, RDSO, Lucknow
3. Executive Director (Standards) Track-I, RDSO, Lucknow
4. Executive Director ME(Coaching) , Railway Board

Prem Sagar
o/c 08.01.21
(प्रेम सागर गुप्ता)
कृते, सचिव रेलवे बोर्ड

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264

भारत सरकार Government of India

रेल मंत्रालय Ministry of Railways

रेलवे बोर्ड Railway Board

No. 2021/CEDO/SR/01(2) **New Delhi, dated 08.01.2021**

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011

Sub:- Improvement measures for in future production of LHB AC Vistadome coach [Unique Transportation Code: **LWCTZAC**; Maximum Axle Load: **16.25t**] fitted with pneumatic suspension (120 KN capacity) at the secondary stage on FIAT bogies to RDSO's Drawing no. CSC-1848 up to maximum speed of **160 kmph** *by Zonal Railways*

Ref:- (i) Railway Bd's letter No. 2021/CEDO/SR/01(1), dated 08/01/2021
(ii) RDSO's letter No. SV.FIAT(SC)/Sanction/LWCTZAC, dated 01.01.2021
(iii) CCRS's letter No. 12011/14/2020-21-T.W, dated 05.01.2021

With reference to your above application, sent through the Chief Commissioner of Railway Safety, Lucknow; sanction of the Ministry of Railways, Railway Board has been communicated vide Railway Board's letter under reference (i) for introduction of operation of LHB AC Vistadome coach [Unique Transportation Code: **LWCTZAC**; Maximum Axle Load: **16.25t**] fitted with pneumatic suspension (120 KN capacity) at the secondary stage on FIAT bogies to RDSO's Drawing no. CSC-1848 up to maximum speed of **160 kmph**, *by Zonal Railways,* on track maintained as per provisions of Indian Railway Permanent Way Manual, June 2020.

The CCRS, while recommending for introduction of this Rolling Stock, has suggested ***following measures for improvement of the subject rolling stock***:

(i) During demonstration of fire indication, it was noticed that smoke detection & passenger announcement were available. It was observed that announcement content was not matching with the action taken by Fire Detection System. Content of the passenger announcement needs to be changed to accurately reflect the action taken by Fire Alarm System or action to be taken by passengers, if any.

(ii) Emergency push button switches need to be provided on both sides (compartment & doorway side) of the automatic sliding passenger compartment doors to override the automatic operation & to enable free manual operation of the door in case of faults.

(iii) Entry/Exit of compartment, where PA system & fire alarm indication panels are located, is very restrictive. It may be modified for easy access as these panels are sometimes required to be operated in emergency.

8/1/2021

O/C
ISSUE PLS
8/1/2021

Prem Sagar
08.01.21

RDSO is requested to examine the above and take necessary action as suggested by Commission for improvement of the subject rolling stock. The compliance of the same should also be submitted to CCRS.

Prem Sagar
08.01.21
(प्रेम सागर गुप्ता)
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[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

Copy forwarded for information to:

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement no. 12011/14/2020-21-T.W, dated 05.01.2021
2. Executive Director (Standards)Motive Power, RDSO, Lucknow
3. Executive Director (Standards) Track-I, RDSO, Lucknow
4. Executive Director ME(Coaching) , Railway Board

Prem Sagar
08.01.21
(प्रेम सागर गुप्ता)
कृते, सचिव रेलवे बोर्ड

E-Office # 3242755

266

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड) (Railway Board)

No. 2018/CEDO/SD/RS/01 **New Delhi, dated 01.01.2021**

The Director General
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226011

Sub:- Condonation of infringement w.r.t. IRSOD (BG) Revised, 2004 by **wheel diameter (840mm)** of 25t axle load Broad Gauge Bogie Open Wagon type **"BOXNS"** to RDSO Drawing No. WD-14014-S-01 Alt 6 to IRSOD (BG) Revised, 2004 **over Indian Railway Routes along with DFCCIL feeder routes**

Ref:- (i) RDSO letter No.MW/SPD/BG/BOXNS, dated 06.11.2020
(ii) CCRS letter No.Q-14011/01/2017-18-T.W., dated 03.01.2018 & 02.09.2020
(iii) RB's letter no 2018/CEDO/SD/RS/01 dated 25.11.2019

Railway Board's vide letter no. 2018/CEDO/SD/RS/01 dated 25.11.2019 has accord the sanction for condonation of infringement of wheel diameter (840mm) for operation of 25t axle load wagon type 'BOXNS' only for DFC feeder routes. In continuation of above, it has been decided by Board to *extent the sanction* of Ministry of Railways, Railway Board for condonation of above infringement w.r.t. Chapter-IV(A), Schedule-I of IRSOD (BG) Revised, 2004 by Broad Gauge Bogie Open Wagon type "BOXNS" to RDSO Drawing No. WD-14014-S-01 Alt 6, **over Indian Railways Routes also,** details of infringement as under:

Clause 2(ii)- Minimum diameter on the tread of new carriage of wagon wheel, measured at 63.5mm from wheel gauge face by 74mm (i.e. 840mm instead of 914mm).

Further, above sanction of condonation is subject to the following stipulations:

(i) Issue related to rail-wheel interaction & other specific issues regarding operation of proposed 25 t axle load wagon would be considered & addressed in speed certificate issued by RDSO.

(ii) The condemning wheel diameter shall be limited to 800mm minimum to reduce the ill effect of the wheel and other wagon defect.

(iii) The limit of wheel flat to be reduced from 60mm to 45mm for BOXNS wagons having smaller new wheel diameter as 840mm.

o/c
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5/1/2021

06/01/21

(प्रेम सागर गुप्ता)
कार्यकारी निदेशक सिविल इंजी.(जी)/रेलवे बोर्ड
[Phone: 030-44803(Rly) : 011-23383379(MTNL)]

o/c P.T.O.

(267)

No. 2018/CEDO/SD/RS/01 **New Delhi, dated 01.01.2021**

Copy forwarded for information to :

1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement no. Q-14011/01/2017-18-T.W., dated 03.01.2018
2. Commissioner of Railway Safety, all Circles
3. Executive Director (Standards) Track-1, RDSO, Lucknow
4. Executive Director ME(Fr) , Railway Board, New Delhi

o/c Prem Sagar
1.1.21
(प्रेम सागर गुप्ता)
कृते, सचिव रेलवे बोर्ड

E-Office ⇒ 3301732

(268)

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड) (Railway Board)

No. 2019/CEDO/SD/RS/09 **New Delhi, dated 01.01.2021**

The Director General,
Manak Nagar, RDSO,
Lucknow -226011

Sub : Condonation of infringements w.r.t. IRSOD (BG) Revised, 2004 by Driving Motor Coach (DMC) and Trailer Coach (TC) of 3- phase on-board MEMU stock to manufacturer M/s BEML's General Arrangement Drawing No. GR-3826 (**MEMU/DMC/CS/BEML**) and GR-3999 (**MEMU/TC/CS/BEML**) for DMC & TC respectively

Ref : (i) RDSO's letter No.CT/DEL/AC/EMU/BG/GENL, dated 13.09.2019

(ii) CCRS's letter No.Q-14011/05/2019-20-T.W.,dated 03.10.2019

With reference to your above application, dated 03.05.2019 {ref. (i)}, sent through the Chief Commissioner of Railway Safety, Lucknow; the sanction of Ministry of Railways, Railway Board is hereby communicated for condonation of infringements w.r.t. Chapter-IV(A), Schedule-I of IRSOD (BG) Revised, 2004 by Driving Motor Coach (DMC) and Trailer Coach (TC) of 3- phase on-board MEMU stock to manufacturer M/s BEML's General Arrangement Drawing No. GR-3826 and GR-3999 for DMC & TC respectively, as shown in details enclosed with above mentioned application, details of infringements as under :

(i) Clause 14 – Minimum height above rail level for centres of buffers & CBC couplers when fully loaded by:

(a) 70 mm at both ends of DMC & TC for Schaku coupler (i.e. 960 mm instead of 1030mm)

Further, above sanction of condonation is subject to the following stipulations:

Zonal Railway MUST ensure the removal of existing infringements on operating routes for running of subject rolling stock.

O/C
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5/1/2021

O/C (प्रेम सागर गुप्ता)
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1. The Chief Commissioner of Railway Safety, Office Compound of DRM/NER, Ashok Marg, Lucknow, w.r.t. his endorsement no. 14011/05/2019-20-T.W.,dated 03.10.2019.
2. Commissioner of Railway Safety, all Circles.
3. Executive Director (Standards)Motive Power, RDSO, Lucknow.
4. Executive Director (Standards) Track, RDSO, Lucknow.
5. Executive Director ME(Chg.) , Railway Board.
6. Executive Director EE(G) , Railway Board.

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सत्यमेव जयते

भारत सरकार - रेल मंत्रालय
अनुसंधान अभिकल्प और मानक संगठन
लखनऊ - 226 011

Government of India-Ministry of Railways
Research Designs & Standards Organisation
Lucknow - 226 011

2/9/19

No. EL/1.3.16.7/MEMU_OB/BEML

Date: 24.08.~~2019~~ 2020

24-08-2020

सचिव (विद्युत, सामान्य)
रेलवे बोर्ड, रेल भवन,
रेल मंत्रालय, नई दिल्ली– 110 001

(ध्यानाकर्षणः श्री तेज प्रताप नारायण, निदेशक विद्युत इंजि. (सा.))

DCEE/G

Sub: Condonation for infringements to Indian Railway Schedule of Dimensions (BG) – Revised 2004 of DMC & TC coaches of 3-phase on-board MEMU stock manufactured by M/s BEML.

Ref: i) RDSO letter No. CT/DEL/AC/EMU/BG dated 13.09.2019
ii) Railway Board's letter no. 2019/CEDO/SD/RS/09 dated 15.10.19 and 22.11.2019.
iii) This office letter of even no. dated 06.12.2019

1. RDSO, vide this office letter under reference (i) has requested Railway Board through CCRS/LKO to condone the infringement to IRSOD, revised 2004 of DMC & TC coaches of 3-phase on-board MEMU stock manufactured by M/s BEML and the same was forwarded by CCRS/LKO to Railway Board.

2. In terms of Railway Board letters under reference (ii), regarding allotment of transportation code, clarifications were submitted vide this office letter of even no. dated 06.12.2019. But the sanction of condonation is still awaited from Railway Board.

3. It is informed that prototype MEMU rake manufactured by M/s BEML is under commissioning at GZB EMU car shed and shall be moved for oscillation trials shortly. GM & CRS sanction for conducting oscillation and EBD trials has already been received vide letter No. 519-W/2004/Track dated 21.08.2020 and CRS/Northern Circle/New Delhi letter No. 2018/Q-17(15)/U. Pari/81 dated 08.07.2020 respectively.

4. In view of the above, it is requested to communicate the sanction of condonation for subject rolling stock.

This may be treated as URGENT

(रणविजय) 24/08/20

निदेशक/पीएस एंड ईएमयू
कृते कार्यकारी निदेशक/पीएस एवं ईएमयू0

CEDO