GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS

(RAILWAY BOARD)

2014/CE-III/BR/BSC/83/Seminar/pt **New Delhi, dt. 04.10.2016.**

General Manager (Const.), N.F.Railway, Guwahati.
Principal Chief Engineer, All Indian Railways
CAO/Const., All Indian Railways.
FA & CAO, All Indian Railways.

Director General, RDSO/Alambagh, Lucknow
General Manager (Engg)- ICF/Chennai, RCF/Kapurthala, DLW/Varanasi, CLW/Chittranjan, W&AP/Yelahanka, Bangalore & DMW/Patiala
Chief Commissioner of Railway Safety, Lucknow.

Chairman Cum Managing Director, Konkan Railway Corporation Ltd, Navi Mumbai.
Chairman Cum Managing Director, IRCON, New Delhi.
Chairman Cum Managing Director, RITES, New Delhi.
Managing Director, DMRC, Metro Bhawan, Barakhamba Road, New Delhi
Managing Director, CONCOR, New Delhi.
Chairman Cum Managing Director, RVNL, New Delhi.
Managing Director, DFCCIL, New Delhi.
Managing Director, Pipavav rail corporation ltd, New Delhi.
Managing Director, MRVC, Mumbai
Vice Chairman, RLDA, New Delhi

Director, IRICEN, Pune.
Director, IRIEEN, Nasik.
Director, IRISET, Secunderabad.
Director, IRIMEE, Jamalpur.
Director, IRITM, Manak Nagar, Lucknow.
Director General, National Academy of Indian Railways, Vadodara.

Genl. Secy., AIRF, NFIR, IRPOF, FROA, AIRPFA, DAI (Railways) Rail Bhawan, New Delhi.

Sub: *Advance Correction Slip* ***No.34 to*** *Indian Railways Bridge Manual.*

Ministry of Railways (Railway Board) have decided that correction/addition/modification as indicated in the enclosed Advance Correction Slip No.34 dated 04.10.2016 to relevant para of the IRBM be made.

Receipt of this letter may please be acknowledged.

DA: As above

(V.K.Jain)
Director Civil Engg.(B&S),
Railway Board

2014/CE-III/BR/BSC/83/Seminar/pt New Delhi, dt. 04.10.2016

Copy to: CRB, ME, ML, MS, MM, MT, FC, Secretary

AM/CE, AM(W), AM(Budget), AM(Elect.), AM(Fin.), AM(Sig.), AM(Plg.), AM(RS), AM(Mech.), AM(PU), AM(Tele.), AM(Traffic), Adv.(Vig.), Adv.(L&A), Adv (Bridges), Adv(Safety)

EDCE(P), ED(Works), ED(PM), EDV(E), EDTK(M), EDTK(MC), EDTK(P), EDCE(G), ED(L&A), ED(L&A-II), ED(L&A-III), EDCE(B&S), EDCE(B&S-II), ED(WP), ED(PSU), EDF(X), EDFX-II & OSD/ME

DTK(MC), DTK(M), Dir(Works) I & II, Dir.(L&A), DVE-I & DVE-II, DCE(P), DTK(P), Dir(WCS), DCE(B&S-II), Dir(WP), DCE(G), Dir (PSU), Dir Infra (PPP)

GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
(Railway Board)

INDIAN RAILWAYS BRIDGE MANUAL

EDITION – 1998

ADDENDUM & CORRIGENDUM SLIP NO. 34 Dated 04.10.2016

Following Para may be added

Para 224 TRACTIVE EFFORT LIMITATION-

1. For allowing higher powered locomotives on old bridges, the Tractive Effort (TE) may have to be limited for multiple loco operation. Such bridges shall be identified by Chief Bridge Engineer. A list of such bridges, where Tractive Effort is limited to 30t per Loco in Double and Multi-headed operations is to be notified in the working Time Table.

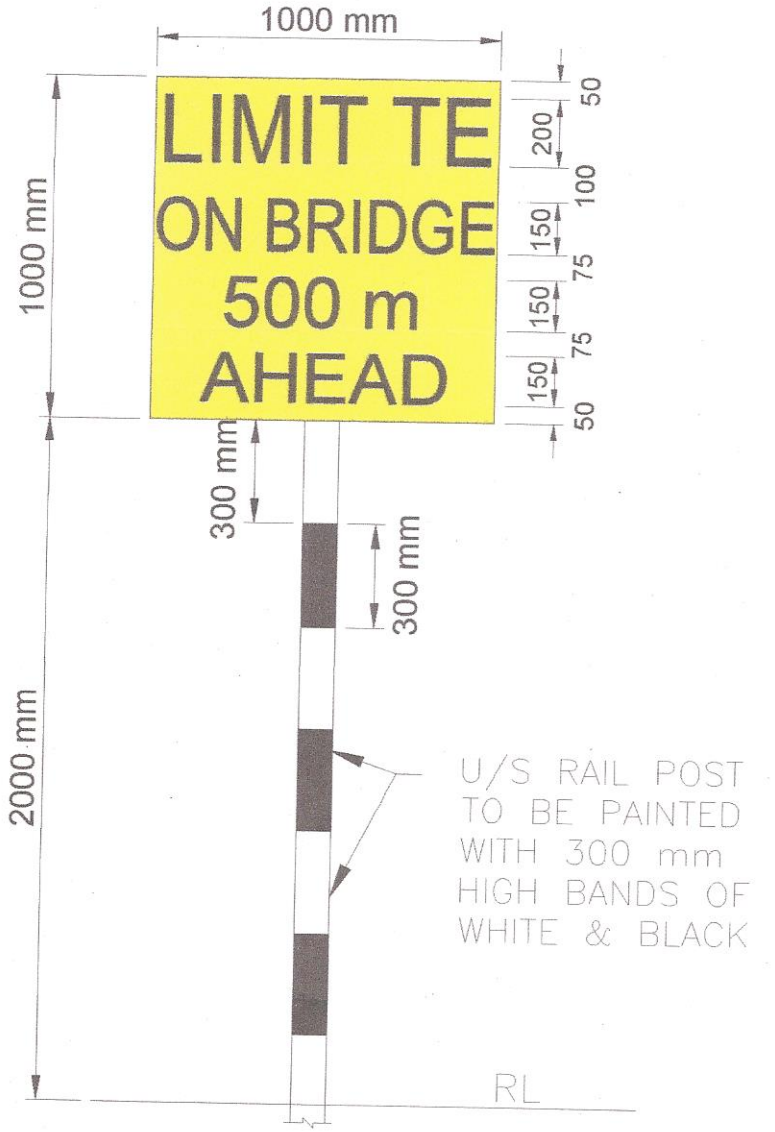
2. Locomotive which are thus restricted shall as far as possible be fitted with a "Tractive Effort Limiting Switch" (TELS) which, when operated, shall limit the tractive effort generated by each locomotive to 30T maximum. In Locomotive, where TELS is not provided, Tractive Effort shall be limited to 30T by controlling current (Amperage) of Traction Motor, which is indicated in the current/load meter on the control desk/panel of the locomotive.

3. To indicate the location where Tractive Effort Limiting Switch (TELS) is to be operated or where Tractive Effort is to be limited by controlling current of traction motors, caution indicator for TE Limitation, indicator for TE Limit operation and termination indicator for TE Limitation shall be provided as per the details and distances shown in Annexure-2/13 to 2/16. All the indicators shall be of retro-reflective type.

4. If locos are not able to haul the train, which gets stuck near or on the bridges where TE is limited and required tractive effort is more than 30t per Loco, the driver should not apply more tractive effort and should ask for assisting engine for clearing the train. This instruction should be incorporated in the Working Time Table so that all operating staff is aware of the instructions.

5. Operation of TE Limitation on such bridges as given above is to be made part of Learning of Loco Pilots and Astt. Loco Pilots. This item should be monitored by Loco Inspectors and Safety Counselors during their routine inspection.

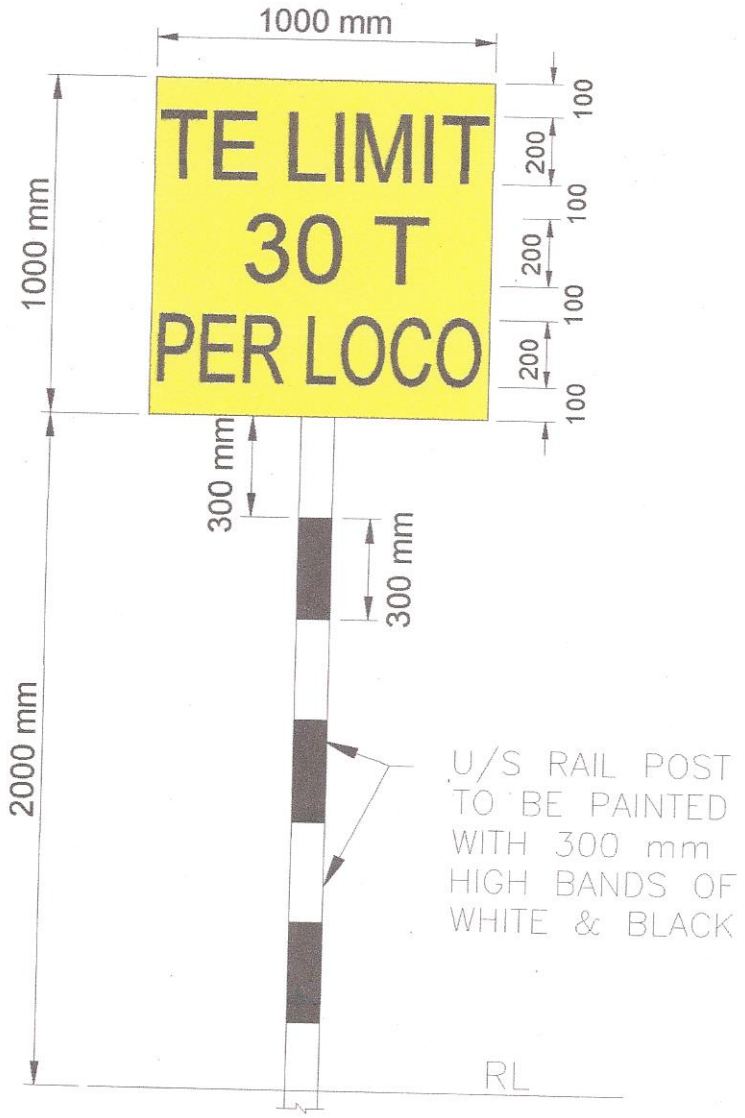
अनुबन्ध 2/13 पैरा 224.3	Annex 2/13 Para 224.3



CAUTION INDICATOR FOR TE LIMITATION

(ALL LETTERS 25 mm THICK)
(Retro reflective Type)

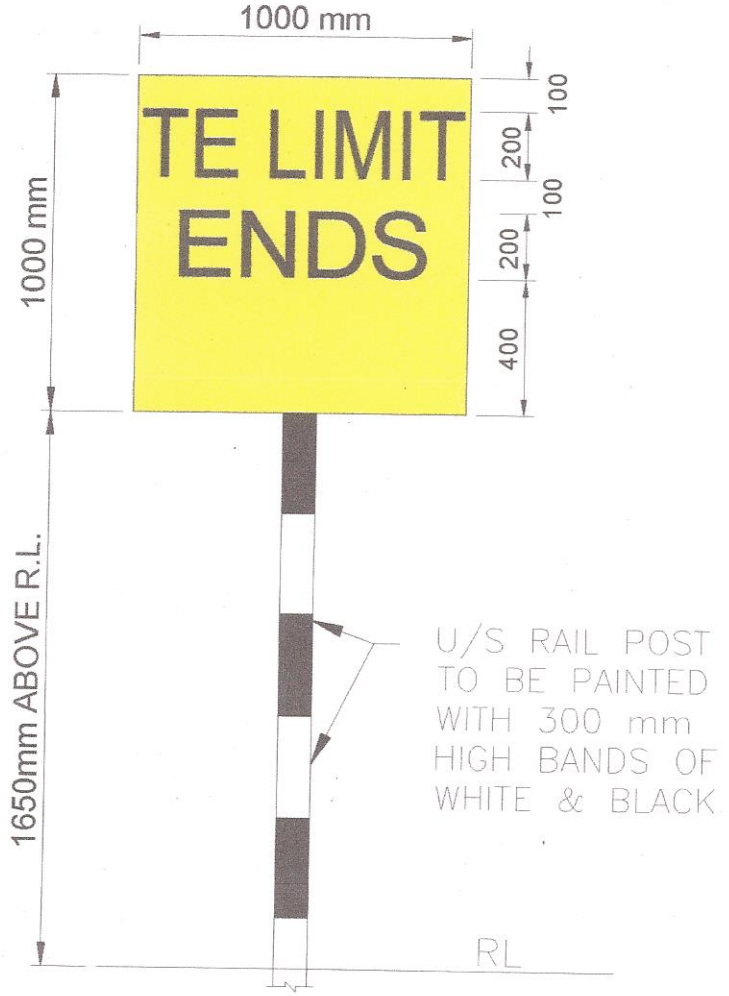
अनुबन्ध 2/14 पैरा 224.3	Annex 2/14 Para 224.3



TE LIMIT OPERATION INDICATOR

(ALL LETTERS 25 mm THICK)
(Retro reflective Type)

अनुबन्ध 2/15 पैरा 224.3	Annex 2/15 Para 224.3



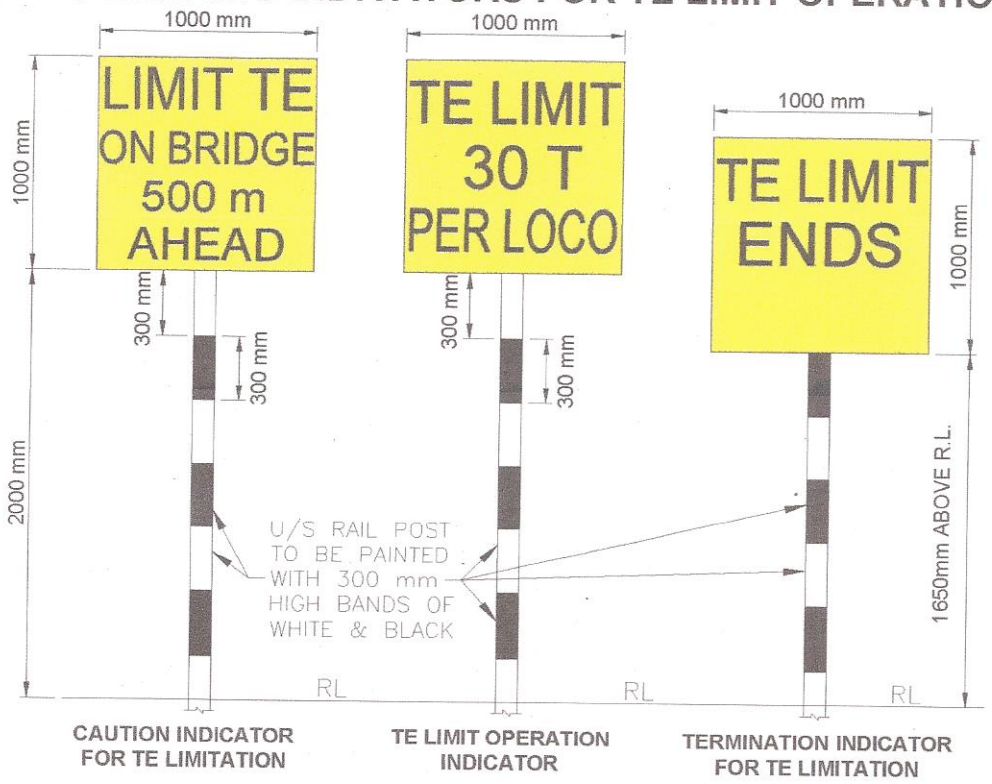
TERMINATION INDICATOR FOR TE LIMITATION

(ALL LETTERS 25 mm THICK)

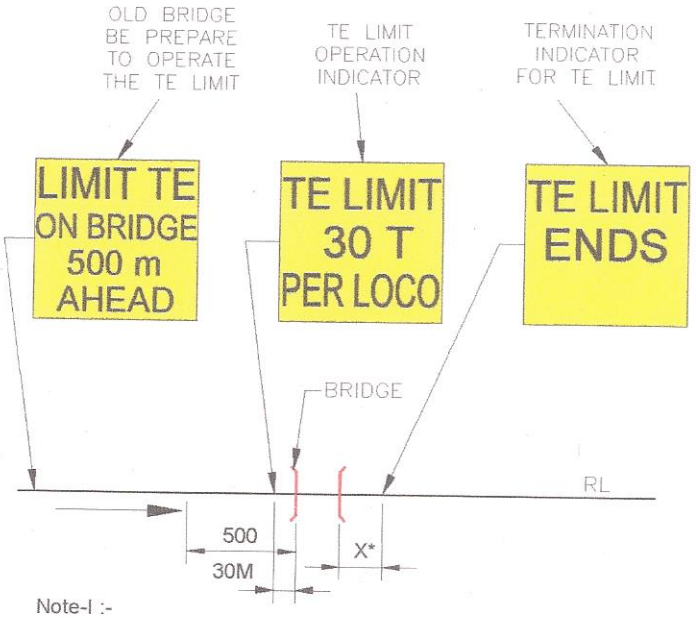
(Retro reflective Type)

अनुबन्ध 2 / 16 पैरा 224.3	Annex 2/16 Para 224.3

ENGINEERING INDICATORS FOR TE LIMIT OPERATION



POSITION OF TE LIMIT OPERATION INDICATORS



Note-I :-

Case-I:- In case of multiple locos in front only X* = 100m

Case-II:- In case where multiple locos are provided in mid or rear of train.

X*= Train length upto last Engine + 30m