

Email एटिचानिफिकेस
12/03/24

मनीष कुमार
Manish Kumar
निदेशक-VII/पुल एवं संरचना
Director-VII/B&S



भारत सरकार - रेल मंत्रालय
अनुसन्धान अभिकल्प और मानक संगठन
लखनऊ - 226011
Government of India-Ministry of Railways
Research Designs & Standards Organisation
Lucknow- 226011
Phone / Fax : 032-42124
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No. CBS/PSB

Dated: 11-03-2024

- 1) GM/ Con/ NFR
- 2) Principal Chief Engineer/ All Zonal Railways
- 3) Chief Administrative Officer (Con)/ All Zonal Railways

Sub: Addendum and Corrigendum Slip No.-23 to IRS Steel Bridge Code related to Revision in deflection limits to be adopted for cambered railway bridge
Ref: Railway Board's letter No.2023/3/CE-III/BR/87th BSC dated 07-03-2024.

In reference to above subject, Addendum and Corrigendum Slip No.-23 to IRS Steel Bridge Code related to revision in deflection limits for cambered composite girder/plate girder has been approved by Railway Board.

The copy of Addendum & Corrigendum slip no. 23 of IRS Steel Bridge code is forwarded for kind information and necessary action please.

मनीष कुमार
(Manish Kumar)

निदेशक-VII/पुल एवं संरचना
Director/B&S-VII

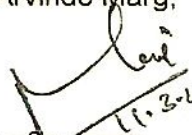
Encl.: Copy of A&C Slip No. 23 to IRS Steel Bridge Code.

Copy to:

- I OSD/ME for kind information of Member Engineering, Railway Board, Rail Bhavan, New Delhi-110001.
- II The Chief Commissioner of Railway Safety, N.E. Railway Office Compound, Ashok Marg, Lucknow-226002.
- III Additional Member (Civil Engg.), Railway Board, Rail Bhavan, New Delhi-110001.
- IV Additional Member (Works), Railway Board, Rail Bhavan, New Delhi-110001.
- V Director, IRICEN, Pune-410001.
- VI Executive Director Civil Engg.(B&S), Railway Board, Rail Bhavan, New Delhi-110001.
- VII The General Manager (C), N.F. Railway, Maligaon, Guwahati-781001.
- VIII Chief Engineer, Metro Railway, Jawahar Lal Nehru Road, Kolkata-700 071.
- IX **Chief Bridge Engineers:**
 - i) Central Railway, Mumbai CST-400 001.
 - ii) Eastern Railway, Fairlie Place, Kolkata-700 001.

2643501/2024/O/o ED/BnS/RDSO

- iii) East Central Railway, Hazipur-844 101.
 - iv) East-Coast Railway, Bhubaneshwar-751 016 (Orissa).
 - v) Northern Railway, Baroda House, New Delhi- 110 001.
 - vi) North-Central Railway, Allahabad-211 001.
 - vii) North Eastern Railway, Gorakhpur-273 001.
 - viii) North-Western Railway, Jaipur-302 001.
 - ix) Northeast Frontier Railway, Maligaon, Guwahati-781 011.
 - x) Southern Railway, Park Town, Chennai-600 003.
 - xi) South Central Railway, Rail Nilayam, Secunderabad-500 371.
 - xii) South East Central Railway, Bilaspur-495 004
 - xiii) South Eastern Railway, Garden Reach, Kolkata-700 043
 - xiv) South-West Railway, Hubli-580 023.
 - xv) Western Railway, Mumbai-400 020.
 - xvi) West-Central Railway, Jabalpur-482 001.
- X The General Manager, Delhi Metro Rail Corporation Ltd., NBCC Place, Bhisma Pitamah Marg, Pragati Vihar, New Delhi-110003.
- XI Commissioner of Railway Safety:
- i) Central Circle, 2nd Floor, Churchgate Station Building Mumbai-400020.
 - ii) Eastern Circle, Multistoreyed Building of Eastern Railway, 12th Floor, Strand Road, Kolkata.
 - iii) Northern Circle, near Centre for Railway Information System, Safdarjung Railway Station, New Delhi.
 - iv) North Eastern Circle, DRM Compound, Northern Railway, Hazratganj, Lucknow
 - v) Northeast Frontier Circle, 12 Strand Road, Multistoreyed Building of Eastern Railway, Kolkata.
 - vi) Southern Circle, 7 Seshadri Road, Gandhi Nagar, Bangalore.
 - vii) South Central Circle, Secunderabad.
 - viii) South Eastern Circle, 14 Strand Road, Multistoreyed Building of Eastern Railway, Kolkata.
 - ix) Western Circle, 2nd Floor, Churchgate Station Building Annexe, Maharishi Karve Road, Mumbai-400020.
- XII The Director General, Railway Staff College, Vadodara-390004.
- XIII The Managing Director, RITES LTD, RITES Bhawan, Plot No.1, Sect.29, Gurgaon (Haryana)-122001.
- XIV The Managing Director, IRCON, Palika Bhawan, Sector-XIII, R.K. Puram, New Delhi-110066.
- XV The Chairman & Managing Director, Konkan Railway Corporation Ltd., Belapur Bhavan, Plot No. 6, Sector-II CBD Belapur, Navi Mumbai-400 614.
- XVI The Managing Director, Rail Vikas Nigam Ltd., C-2/10, Safdarjang Development Area, Arvindo Marg, New Delhi- 110 016.


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निदेशक-VII/पुल एवं संरचना
Director/B&S-VII

GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
(RAILWAY BOARD)

INDIAN RAILWAY STANDARD
CODE OF PRACTICE FOR THE DESIGN OF
STEEL OR WROUGHT IRON BRIDGES

(STEEL BRIDGE CODE)

Adopted-1941

Revised-1962

Reprinted in 2017

(Incorporating A&C Slips No.1 to 21)

Addendum & Corrigendum Slip No.23 dated 08.03.2024

Clause 4.16 & 4.17 to be changed as below:

4.16 Camber

4.16.1 In Beam & Plate Girder subjected to Railway loading, spans upto and including 35m (115 ft) need not be cambered. However, in FOB, if required, deflection limitations due to dead load may be taken care of by providing suitable camber.

4.16.2 In unprestressed open web spans, the camber of the main girders and the corresponding variations in length of members shall be such that when the girders are loaded with full dead load plus 75 per cent of the live load without impact producing maximum bending moment, they shall take up the true geometrical shape assumed in their design.

4.16.3 Where girders are prestressed the stress camber change should be based on full dead load and live load including impact.

4.16.4 In Composite Steel girders, necessary camber may be adopted to offset the effect of all dead load and superimposed dead loads.

4.17 Deflection -

(i) For permanent installations other than foot-over-bridges, the ratio of deflection to the length of the girder shall not exceed $1/600$.

(ii) In the case of foot-over bridges, the ratio of deflection to length of the girder shall not exceed $1/325$.

(iii) In Plate girder & Composite Steel girders in which camber is provided for compensating the deflections due to dead load and superimposed dead load, the ratio of deflection due to live load and Impact Load measured from the soffit of a nominally straight span should not be exceeded by 1 in 800.

Note: With the specific sanctions of the Board, the limit of $1/600$ & $1/800$ as mentioned above may be exceeded for girders in permanent installations.

Lucknow
Date : 08.03.2024

Digitally Signed by Rajesh
Kumar Srivastava
Date: 08-03-2024 16:51:50
Reason: Approved