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भारत सरकार - रेल मंत्रालय
अनुसंधान प्रविधिकरण और मानक संगठन
लखनऊ-226011
Government of India-Ministry of Railways,
Research Designs & Standards Organisation
LUCKNOW-226011

No. MC/TW

Date: 12.05.98

The General Manager (Engg.)

1. Central Railway, Mumbai CST-400 001.
2. Eastern Railway, Fairlie Place, Calcutta-700 001.
3. Western Railway, Churchgate, Mumbai-400 020.
4. Northern Railway, Baroda House, New Delhi-110 001.
5. Southern Railway, Park Town, Madras-600 003.
6. South Central Railway, Secunderabad-500 371.
7. South Eastern Railway, Garden Reach, Calcutta-700 043.

Sub.: Final maximum permissible speed for operation of BG 4-wheeler over head equipment inspection car Mark-III with modified suspension, manufactured by Jamalpur Workshop of Eastern Railway.

BG overhead equipment inspection cars (Mark-III) have been designed by RDSO and are under manufacture at Jamalpur Workshop of Eastern Railway. The maximum axle load for this car is within 16.00t under gross loaded condition.

2. The OHE car has been provisionally cleared for a maximum operating speed of 40 km/h vide this office letter of even No. dated 10.4.1989. The oscillation trials conducted on Kiul-Howrah section of Eastern Railway indicated that improvement in suspension system is required. Accordingly, the suspension has been redesigned to RDSO Sketch No.89068 and 89069. Revised suspension is softer as compared to its earlier version.

2.1 In order to assess the speed potential of the OHE car with modified suspension, detailed oscillation trials upto a maximum speed of 70 kmph on Kiul-Howrah section (via mainline/Sahibganj loop line) of Eastern Railway have been conducted and results are contained in RDSO's report No.MT-106 of November, 1997. The results have indicated satisfactory riding of the OHE Car upto the maximum test speed of 70 km/h.

Based on the results of these trials it is certified that BG 4-wheeler OHE inspection Car fitted with modified suspension to RDSO Sketch NOs.89068 and 89069 may be permitted to run at a maximum speed of 60 km/h on Broad Gauge routes of Indian Railways subject to the following conditions:

2.2 Track

2.2.1 The track shall be to a minimum standard of 90 R rails on sleepers to M+4 density and depth of ballast cushion below sleepers of 200mm which may consist of at least 75mm clean and the rest in caked up condition, on compacted and stable formation.

2.2.2 For track of lower standard than that mentioned above the Chief Engineer concerned shall decide the lower maximum permissible speed. In this connection, Railway Board's letter No.65/WDD/SR/26 dated 19/20-10-1966 may be seen. When the Chief Engineer considers that the road bed is not compacted or there is improper drainage, he may suitably restrict the maximum permissible speed depending on the local conditions.

2.2.3 The maximum permissible speed on curves shall be decided on the basis of the existing provisions of the Indian Railway Permanent Way Manual 1986.

2.3 Bridges

2.3.1 The clearance in regard to bridges refers to standard design of girders, slabs, pipe, culverts, pier and abutments etc. issued by RDSO for BGML, RBG & MBG - 1987 standard loadings.

2.3.2 All other designs of superstructures and sub-structures are to be examined under the direction of the Chief Engineer concerned and certified safe by him in terms of current IRS Bridge Rules, Steel, Bridge Code, Bridge Sub-Structures and Foundation Code etc. read with upto date correction slips.

2.4 Signalling

2.4.1 The speed of the inspection car shall not exceed 15 kmph while passing the junction stations provided with RRI on account of sectional route release circuits. At all other stations the speed shall not exceed 40 kmph while running through the stations.

2.5 General

2.5.1 All the permanent and temporary speed restrictions in force and those imposed from time to time due to track, bridges, curves, signalling and interlocking etc. shall be observed.

2.5.2 The design of the car infringes clause 26(a), 28(a), 31 & 32(a) of Chapter IV (A) of BG Metric Schedule of Dimension - 1973. These infringements have been condoned by Railway Board vide letter No.84/WDD/SR/7 dated 4.4.1985. The profile of the car falls within the double decker coach

profile to Sk.72227 and will attract all restrictions imposed on the movement of double decker coaches vide Railway Board's letter No.72/WDO/SR/31 dated 22.2.1974.

2.5.3 This speed certificate is valid only with the dummy pantograph in the locked down condition and the lifting cum swivelling platform held in the collapsed condition as shown in the respective layout sketch (84035 & 84057), whichever is applicable.

- DA.:1.RDSO Sk.No.89068 & 89069.
2.Railway Board's letter
No.84/WDO/SR/7 dated 4.4.1985.

P. Bhattacharya

(P.BHATTACHARYA)

EXECUTIVE DIRECTOR STANDARDS(MOTIVE POWER)

Copy to:

(i). The General Manager, Mech./Elect./Dptg.

1. Central Railway, Mumbai CST-400 001.
2. Eastern Railways, Fairlie Place, Calcutta-700 001.
3. Western Railway, Churchgate, Mumbai-400 020.
4. Northern Railway, Baroda House, New Delhi-110 001.
5. Southern Railway, Park Town, Madras-600 003.
6. South Central Railway, Secunderabad-500 371.
7. South Eastern Railway, Garden Reach, Calcutta-700 043.

(ii) The CWM, Eastern Railway, Jamalpur.

(iii) The Secretary[Elec./Engg.(G)], Railway Board,
Rail Bhawan, N.Delhi-110001.

P. Bhattacharya

(P.BHATTACHARYA)

EXECUTIVE DIRECTOR STANDARDS(MOTIVE POWER)