



भारत सरकार - रेल मंत्रालय  
अनुसंधान अभिकल्प और मानक संगठन  
लखनऊ - 226 011  
EPBX (0522) 2451200  
Fax (0522) 2458500

Government of India-Ministry of Railways  
Research Designs & Standards Organisation  
Lucknow - 226 011  
DID (0522) 2450115  
DID (0522) 2465310



MC/LHB/COACH

Date: 29.9.2016

महाप्रबन्धक (इंजीनियरिंग),

1. पूर्व मध्य रेलवे, हाजीपुर - 844101.
2. पूर्व रेलवे, फेयरली प्लेस, कोलकाता - 700001

Sub: Amendment no. 01 to Speed Certificate for operation of Mail/ Express trains comprising maximum 23 Nos. of AC/Non AC (EOG) LHB variant coaches including two LHB Generator Vans on Mughalsarai (MGS) -Howrah (HWH)-Mughalsarai (MGS) section via Gaya of East Central Railway & Eastern Railway at a maximum speed of 130 kmph on track maintained to C&M-I, Volume-I standard.

Ref.: -Amendment no. 01 dated 29.9.2016 to speed certificate of even no. dated 29.04.2016

Please find enclosed herewith a copy of RDSO's above referred Amendment no. 01 to speed certificate alongwith all the enclosures necessary for action at your end. Copies of the letters endorsed to Mechanical, Electrical and Operating Branches and S&T of your Railways are also being enclosed herewith and the same may please be forwarded to the respective Branches.

(R. K Mishra)  
Dy. Director/Carriage  
For Director General/Carriage

प्रतिलिपि:

1. Secretary (Mech., Elec. & Engg./G , S&T), Railway Board, Rail Bhawan, New Delhi-110001
2. Chief Commissioner of Railway Safety, DRM Office Compound NE Railway, Lucknow-226001
3. ED/PS & EMU, RDSO, Lucknow
4. ED/B&S, RDSO, Lucknow

संलग्नक: Amendment no. 01 dated 29.9.2016 to speed certificate of even no. dated 29.04.2016

(R. K. Mishra)  
Dy. Director/Carriage  
For Director General/Carriage



No. MC/LHB/COACH

Dated: 29.09.2016

**महाप्रबन्धक (इंजीनियरिंग),**

1. पूर्व मध्य रेलवे, हाजीपुर - 844101.
2. पूर्व रेलवे, फेयरली प्लेस, कोलकाता - 700001

**Sub: Amendment no. 01 to Speed Certificate for operation of Mail/ Express trains comprising maximum 23 Nos. of AC/Non AC (EOG) LHB variant coaches including two LHB Generator Vans on Mughalsarai (MGS) –Howrah (HWH)- Mughalsarai (MGS) section via Gaya of East Central Railway & Eastern Railway at a maximum speed of 130 kmph on track maintained to C&M-I, Volume-I standard.**

- Ref: i) This office speed certificate no. MC/LHB/COACH dated 29.04.2016  
ii) Eastern Railway letter no. MD/19/LHB/NON-AC/EOG/VOL.I dated 02.08.2016

Vide reference at (i) above, Speed Certificate for operation of Mail/ Express trains comprising maximum 23 Nos. of AC/Non AC (EOG) LHB variant coaches including two LHB Generator Vans on Mughalsarai (MGS) –Howrah (HWH)- Mughalsarai (MGS) section via Gaya of East Central Railway & Eastern Railway at a maximum speed of 130 kmph on track maintained to C&M-I, Volume-I standard, was issued on 29.04.2016. Vide letter referred at (ii) above, Eastern Railway has requested to amend Para no. 2 & 2.5.2 of the subject speed certificate. Accordingly, the Para no. 2, 2.2.5, 2.3, 2.4, 2.5.2 & 2.6.3 of said speed certificate have been amended and shall be read as under: -

**Para 2**

Based on the above, it is certified that Mail/ Express trains hauled by single WAP4 class of locomotive and having maximum 23 nos. of AC/Non AC (EOG) LHB variant coaches including two nos. of LHB AC Generator Vans may be permitted to operate on Mughalsarai (MGS) – Howrah (HWH)- Mughalsarai (MGS) section via Gaya of East Central Railway & Eastern Railway at a maximum speed of 130 kmph on track maintained to C&M-I, Volume-I standard subject to the conditions given below.

**Para 2.2.5**

This clearance is subject to the following parameters of locomotive and LHB AC/ Non AC EOG variant coaches:

**(A) For Locomotive:**

S.No.	Description	WAP4
1.	Max. axle load	19+2%t
2.	Max. tractive effort	30.8 t
3.	Max. braking force at rail level	22.73 t
4.	CG height above rail level	Not exceeding 1830 mm

(B) For LHB AC/Non AC (EOG) Variant Coaches:

S. No.	Type of Coaches	Transportation Code	Maximum Axle Load	Maximum Braking Force at Rail Level	CG height above rail level
1.	AC First Class Coach	LWFAC	16.25t	5.8t	Not exceeding 1830 mm
2.	AC First cum AC-2 Tier	LWFCWAC	16.25t	5.8t	
3.	AC 2-Tier Sleeper Coach	LWACCW	16.25t	5.8t	
4.	AC 3-tier Sleeper coach	LWACCN	16.25t	5.8t	
5.	AC (EOG) Pantry Car	LWCBAC	16.25t	5.8t	
6.	Generator van	LWLRRM	16.25t	6.62t	
7.	Three Tier Sleeper coaches	LWSCN	16.25t	5.8t	
9.	Second class Non AC coaches	LS2	16.25t	5.8t	
10	Second class Non AC coaches	LS3	16.25t	5.8t	

### 2.3 Signaling

- 2.3.1 Provision of GR, SR, SEM and all extant instructions issued from time to time shall be complied with.
- 2.3.2 MACLS shall be provided with two distant signals or four aspect automatic signaling. If two distant signals are provided then first distant signal shall be located at a distance of 1 km in rear of the home signal and the second distant signal at a distance of 2 kms in rear of the home signal. This stipulation shall also be applicable to the IBS and interlocked gates located in the block section.
- 2.3.3 All manned level crossing gates shall be provided with telephone communication with the nearest station.
- 2.3.4 With a view to maintained safety, the last stop signal shall not be taken "OFF" at the station unless:
- 2.3.4.1 The sections upto the stations in advance is clear, and
- 2.3.4.2 At the station in advance, the route of the train is clear, correctly set and locked for reception of train.
- 2.3.5 Following provisions are mandatory.
- Electrical operation of points and means for locking both switches.
  - Electrical means for lock detection and independent switch detection by the respective signals.
  - The interlocking between signal and points shall be by electrical or electronic means (PI/RR/SSI)
  - Track circuiting of all running line from first stop signal to last stop signal.
  - At stations provided with central panel interlocking arrangement for verifying complete arrival of train by suitable means (Axle counter/track circuit block proving).
  - Means for directly holding the closed switch rail to corresponding stock rail and preventing the points from being unlocked during the passage of the train (clamp lock) is required for facing point.
- 2.3.6 25Watts VHF sets shall be provided in the locomotive and guards van for communication between loco pilot, guard and adjacent station master till such time mobile train radio communication work is commissioned in the section.
- 2.3.7 All level crossing gates should be manned.

### 2.4 Traction Installation

- 2.4.1 The 25 kV AC OHE shall have swiveling type Cantilever Assembly having tension in the conductors, regulated automatically with a presag. The presag of 50/100 mm is on the Contact Wire for a maximum span of 72 m, proportionately less for smaller spans.

- 2.4.2 In case of locations where 25 KV AC Porcelain Section Insulators are installed on main line and lies within first 1/10th and 1/3rd of the span, immediately after the OHE Structure and the Runners are in trailing direction, the maximum speed shall be 120 kmph. At all other locations where 25 KV AC Porcelain Section Insulators are installed, the speed shall be limited to 80 kmph.
- 2.4.3 It is recommended that the cantilevers in the section have BFB Steady Arm (RI No. 2390) with 25 mm Drop Bracket Assembly (RI No. 2360) instead of Tabular Steady Arm (RI No. 2520). Bent Steady Arm at overlap locations shall continue.
- 2.4.4 The current collection shall be made through one number Pantograph fit for high speed operation.
- 2.4.5 In 25kV AC traction area, the CEE of the Railway shall have to ensure that the minimum height of Contact Wire and electrical clearances as stipulated in provisions of Chapter –V and V-A, Electric Traction 'Schedule of Dimensions of 1676 mm Gauge (BG) revised 2004' with latest Addendum & Corrigendum Slips is not violated and strictly followed to ensure its safe running.
- 2.4.6 In addition to above, the Chief Electrical Engineer of the Concerned Railway may impose any temporary speed restriction on the basis of personal knowledge, experience of the Sectional OHE and the field conditions prevailing on the particular Section.


### Para 2.5.2

The Wheel Slide Protection (WSP) device of all the coaches in the rake shall be functional at the starting station. If the WSP of any coach become defective enroute, of any train running up to 140 kmph with rake composition less or equal to 25 coaches and with maximum brake cylinder pressure of 3.0 kg/cm<sup>2</sup>, the train can go up to destination without speed restriction as per RDSO's letter no. MC/LHB/Brake dated 25/29.04.2016.

### Para 2.6.3

LHB AC/Non AC (EOG) variant coaches and LHB Generator Van do not infringe any clause of revised IRSOD-2004 with latest addendum & corrigendum slip.

संलग्नक: कुछ नहीं


  
(सी. मधुसूदन राव)

कार्यकारी निदेशक मानक/चालन शक्ति

### प्रतिलिपि:

1. सचिव (यांत्रिक/इलेक्ट्रिकल/इंजीनियरिंग-जी), रेलवे बोर्ड, रेल भवन, नई दिल्ली-110 001.
2. मुख्य रेल संरक्षा आयुक्त, मण्डल रेल प्रबन्धक कार्यालय, पूर्वोत्तर रेलवे परिसर, अशोक मार्ग लखनऊ -226 001
3. महाप्रबन्धक (यांत्रिक, परिचालन, विद्युत, संकेत एवं दूरसंचार).
  - i) पूर्व मध्य रेलवे, हाजीपुर - 844 101.
  - ii) पूर्व रेलवे, फेयरली प्लेस, कोलकाता - 700001

संलग्नक: कुछ नहीं

  
(सी. मधुसूदन राव)

कार्यकारी निदेशक मानक/चालन शक्ति