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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

AN ISO 9001 CERTIFIED ORGANISATION

No. MC/LHB/COACH

Date: 13.06.2014

महाप्रबन्धक (इंजीनियरिंग)
पूर्व मध्य रेलवे, हाजीपुर – 844101.

Sub: **Speed Certificate for operation of Mail/Express trains hauled by single WAP4/WAP5/WAP7 class of locomotives consisting of maximum 22 AC/Non AC EOG LHB Coaches including two AC Generator Vans on Gaya-MGS-Gaya section of East Central Railway up to the maximum speed of 125 kmph, on track maintained to C&M-I, Vol.-I standard.**

Ref.: i) This office speed certificate of even no. dated 12.04.2012 & 12.12.2012 followed by amendment no.01, dated 28.12.2012 & amendment no.02, dated 31.12.2013 .
(ii) Commission of Railway Safety, North Eastern Circle letter no. 3499/LHB/AC/EOG/NCR/Pt.1 dated 12.03.2014.
(iii) ECR letter no. ECR/MEC/CHG/432/CRS dated 01.04.2014

1. Vide reference at (iii) above, ECR has requested to issue the speed certificate for operation of Mahabodhi Express between Gaya-MGS section of ECR at maximum speed of 125 kmph as RDSO has conducted the COCR between Gaya-MGS section of ECR. Vide reference at (ii) above; CRS North Eastern Circle has accorded the sanction for regular operation of Gaya–New Delhi Mahabodhi Express by adding Second Class Non AC EOG LHB Coach (LS2) in its existing composition of 22 nos. AC/ Non AC EOG LHB variant coaches (LWLRRM-2, LWACCW-1, LWACCN-01, LWSCN-13, LWCBAC-01 & LS2-04) hauled by single WAP4/WAP5/WAP7 class of Locomotive on GZB-MGS (UP & DN line) section of NCR as per RDSO Speed certificate no. MC/LHB/COACH dated 12.04.12 (for running coaches LWLRRM, LWACCW,LWACCN, LWFAC, LWSCN, LWCBAC except LS2 coach) and RDSO Speed certificate no. MC/LHB/COACH dated 12.12.2012 (for second class Non AC EOG LHB Coach-LS2) for North Central Railway as detailed in NCR's Joint Safety Certificate No. 29/Gaya-New Delhi Mahabodhi Express (12397/12398)/GZB-MGS/NCR/2013 at a maximum speed of 130 kmph on GZB-MGS section or the permissible speed of section whichever is less.

1.1. Indian Railways had signed a contract with M/s LHB Germany for supply of 24 nos. all metal lightweight high-speed BG AC coaches along with transfer of technology. RCF has built LHB AC/Non AC EOG broad gauge coaches fitted with FIAT bogies under Transfer of Technology from M/s. ALSTOM-LHB. The AC coaches, generally to RDSO drawing no. Sk. 96077 and to RCF's drawing no. LE 90009 have a speed potential for operation at a maximum speed of 160 km/h, on track maintained to standards contained in RDSO's Report No. C&M-I Vol.-I. These coaches have been built to the-state-of-art technology, fitted with disc brakes and centre buffer couplers and have a unique feature of wheel slide protection device (WSP), to prevent formation of wheel flats.

1.2 LHB AC EOG Chair car has undergone detailed oscillation trials up to test speed of 180 kmph on Palwal-Mathura section of Northern Railway & North-Central Railway on

track maintained to C&M-I, Vol.-I standard. The test results of trials as contained in RDSO Report no. MT-240, exhibit satisfactory riding and stability behavior, upto test speed of 180 kmph on track maintained to C&M-I, Vol.-I standard. The LHB AC Generator Van has undergone detailed oscillation trials up to test speed of 145 kmph on Palwal-Mathura section of Northern Railway & North-Central Railway and from 145 kmph upto 180 kmph on Ghaziabad-Tundla section of North-Central Railway on track maintained to C&M-I, Vol.-I standard. The test results of trials as contained in RDSO Report no. MT-274 and MT-282 respectively. The test results of these trials exhibit satisfactory riding and stability behavior, upto test speed of 180 kmph on track maintained to C&M-I, Vol.-I standard. Similarly, LHB AC 3-Tier EOG variant coach has undergone detailed oscillation trials up to test speed of 180 kmph on Ghaziabad-Tundla section of North-Central Railway on track maintained to C&M-I, Vol.-I standard. The test results of trials as contained in RDSO Report no. MT-412, exhibit satisfactory riding and stability behavior, upto test speed of 180 kmph on track maintained to C&M-I, Vol.-I standard. On the basis of satisfactory riding and stability behavior, the speed certificates for regular operation of LHB AC chair cars, LHB AC Generator Van and LHB AC 3-Tier EOG coach at a maximum speed of 160 km/h on track maintained to C&M-I Vol.-I standard have been issued vide RDSO's letters nos. MC/LHB/Coach dated 19.3.2003, MC/LHB/Coach dated 20.3.2003 and MC/LHB/Coach dated 20.5.2003 alongwith partial amendment issued on 27.02.2004 respectively.

1.3 RCF has built Three Tier Sleeper (LWSCN) Non AC EOG LHB variant Broad Gauge Coaches as per RDSO's drawing no. CG-11034, fitted with Fiat bogies. This coach has been built to the state of art technology and provided with disc brakes and CBC. CCRS was approached for granting dispensation for conduct of trials on the basis of similar suspension design and other parameter of LWSCN coach, being comparable to LHB EOG AC Chair cars, which had exhibited satisfactory riding up to maximum test speed of 180 kmph in accordance with RDSO report no MT-240 for track maintained to C&M-I, Vol.-I and report no MT-233 for track maintained to other than C&M-I, Vol.-I at the test speed of 115 kmph. Accordingly CCRS/Lucknow vide letter क्यू–17016/04/2011–त0वि0 dated 08.08.2011, granted dispensation from conduct of oscillation trials for EOG LHB Non AC 3-Tier sleeper (LWSCN) coach. Final Speed certificate for operation of Non AC 3-Tier sleeper coaches (LWSCN) has been issued vide letter no. MC/LHB/COACH dated 14.10.2011 at maximum speed of 130 kmph on track maintained to C&M-I, Vol.-I standard.

The Second class Non AC EOG LHB variant coach (LS2) has undergone detailed oscillation trials up to maximum speed of 145 kmph with pay loads upto 16T maximum on Gwalior-Mathura-Agra section of North-Central Railway on track maintained to C&M-I, Vol.-I standard. The test results of trials as contained in RDSO Report no. RDSO/2012/TG/MT-1224/F Rev.-0 dated 30.11.2012, amendment-nil, exhibit satisfactory riding and stability behavior, upto maximum speed of 145 kmph on track maintained to C&M-I, Vol.-I standard. On the basis of satisfactory riding and stability behavior, the speed certificate for regular operation of Second class Non AC EOG LHB variant coach (LS2) at a maximum speed of 130 kmph on track maintained to C&M-I Vol.-I standard has been issued vide RDSO letter no. MC/LHB/Coach dated 12.12.2012 followed by amendment no.01, dated 28.12.2012 & amendment no.02, dated 31.12.2013.

The Second class Non AC EOG LHB variant coach (LS3) has undergone detailed oscillation trials up to maximum speed of 145 kmph with pay loads upto 18.5T maximum on Gwalior-Mathura-Agra section of North-Central Railway on track maintained to C&M-I,

Vol.-I standard. The test results of trials as contained in RDSO Report no. RDSO/2012/TG/MT-1226/F Rev.-0, amendment-nil, dated 05.12.2012, exhibit satisfactory riding and stability behavior, upto maximum speed of 145 kmph on track maintained to C&M-I, Vol.-I standard. On the basis of satisfactory riding and stability behavior, the speed certificate for regular operation of Second class Non AC EOG LHB variant coach (LS3) at a maximum speed of 130 kmph on track maintained to C&M-I, Vol.-I standard has been issued vide RDSO letter no. MC/LHB/Coach dated 16.01.2013 followed by amendment no.01, dated 12.03.2013 & amendment no.02, dated 31.12.2013.

1.4 Coupler force and EBD trials of 18 numbers of LHB AC EOG coaches with single WAP5 Locomotive have been conducted on NDLS-CNB-NDLS section of Northern Railway and North Central Railway and the test results as contained in Report no. MT-283 (March 2001) are found within limit.

1.5 Emergency Braking Distance and Full Service Braking Distance trials of 22 AC /Non AC EOG LHB coaches hauled by single WAP4 Locomotive have been conducted on MGS-GZB section of North Central Railway. The test results as contained in Report no. RDSO/2012/TG/MT-1160/F Rev.-0 dated 22.03.2012 Amendment-Nil, are found within limits.

1.6 The Confirmatory Oscillograph Car Runs of 22 AC /Non AC EOG LHB coaches hauled by single WAP4 Locomotive have been conducted on Gaya-MGS-Gaya section of East Central Railway, in up, down and Reversible directions (third line between Dehri-on- Sone & Mughalsarai) upto a max speed of 125 kmph. The test results as contained in RDSO's Report no. RDSO/2014/TG/MT-1316/F Rev.0 Amendment-Nil, dated 06.03.2014 & corrigendum no. RM2/RP Vol. IX dated 27.03.2014, exhibit satisfactory riding and stability behavior upto maximum speed of 125 kmph.

1.7 The WAP4 locomotive, previously as WAP1 (5,000 hp) locomotive as shown in RDSO's sketch no. SK.DL-3031A Alt.1 has undergone detailed oscillation trials at a maximum speed of 160 kmph and the results are contained in RDSO report no. M-529 (Feb.-March 1994). Based on the results, WAP4 class of locomotive has been cleared up to a max. speed of 140 kmph on track maintained to standard as per C&M-I Vol. I vide this office letter no. SD.WAP1.11 dt. 27.9.1994. Rly. Bd.'s vide their letter no. 93/Elect. (TRS) 440/3 dated 19.01.1995 this class of locomotive has been classified as WAP4 and accordingly, the Zonal Railways have been advised vide this office letter no. SD.WAP1.11 dated 18.4.1996. The axle load of locomotive is 19.0t.

1.8 WAP5 class of locomotives imported from M/s ABB, Switzerland have undergone detailed oscillation trials at maximum speed of 180 kmph and the results are contained in RDSO's report no. MT-88 (June,1997). Based on the results, WAP5 class of locomotives have been cleared for operation up to a maximum speed of 160 kmph on track maintained to standards laid down in RDSO report no. C&M-I Vol.I vide RDSO's letter no. SD.WAP5.11 dated 19.06.1997 followed by amendments dated 23.10.2006, 20.01.2012 and 13.06.2012.

1.9 WAP7 class of locomotives manufactured by Chitranjan Locomotive Works have undergone detailed oscillation trials at a maximum speed of 145 kmph and the results are contained in RDSO report no. MT-290 (March, 2001). Based on the results, WAP7 class of locomotives have been cleared for operation up to a maximum speed of 130 kmph on

track maintained to standards laid down in RDSO report no. C&M-I Vol. I vide RDSO's letter no. EL/3.1.35/4 dated 1.05.2001.

2 Based on the above, it is certified that Mail/Express trains hauled by single WAP4/WAP5/WAP7 class of locomotives having maximum 22 AC/Non AC EOG LHB Coaches including two AC Generator Vans may be permitted to operate up to the maximum speed of 125 kmph on Gaya-MGS-Gaya section and Reversible directions (third line between Dehri-on- Sone & Mughalsarai) of East Central Railway, on track maintained to C&M-I, Vol.-I standard subject to the following conditions:

2.1 Track

2.1.1 The track shall be to a minimum standard of 52 kg rail on PSC sleeper with M+7 density and minimum depth of ballast cushion below sleepers of 250 mm, which may consist of at least 100 mm clean and the rest in caked up condition, on compacted and stable formation on track maintained to C&M-I, Vol.-I standard. Moreover, the instructions for maintenance of track on high speed route, circulated to Indian Railways under RDSO's DO letter no. CRA/509 dated 07.7.1971 and approved by Railway Board under their letter no. 71/W6/HS/8 dated 27.08.1971 and 71/W6/HS/1 dated 21.10.1971 shall be followed.

2.1.2 For track maintained to lower standard than that mentioned above, the Chief Engineer shall decide the lower maximum permissible speed on the basis of maintenance condition. 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 upon the local conditions.

2.1.3 The welds shall be protected by provision of Joggled fish plates as per provision of para 6.4 and para 8.14 of USFD Manual and para 6.3 of AT welding manual and policy instructions of Railway Board. Joggled fish plating of rail should also be ensured as per para 251 of IRPWM.2004 regarding maintenance of rail joints.

2.1.4 Zonal Railway may ensure further detailed examination of track as deemed fit based on age cum condition basis, overdue renewal and condition of formation etc. as per provisions of chapter-III of IRPWM.2004 regarding permanent way renewals.

2.1.5 (i) Replacement of existing loose heel switches by fixed heel curved switches laid on PSC sleeper layout with CMS crossings with adequate arrangements for designed geometry of turnouts shall be ensured. Turnouts with TWS shall be preferred on such routes.

(ii) Preferably Improved SEJ shall be provided on such routes.

(iii) Improvement on track geometry parameters on the route of operation of the coaches/trains shall be carried out.

(iv) The curves shall have to be suitably realigned and proper transition length shall be provided.

(v) All level crossings shall be manned.

2.1.6 The maximum permissible speed on curves shall be decided on the basis of the existing provisions of the Indian Railways Permanent Way Manual second reprint 2004, but shall not exceed the minimum of the speed for which locomotives & coaches have been cleared in their final speed certificates.

2.2 Bridges

2.2.1 The clearance refers to bridges with standard design of girders, slabs, pipe culverts, piers and abutments etc. issued by RDSO for BGML, RBG and MBG-1987 standard loadings. However, the bearings of span 78.8 m (effective) designed for BGML standard loading as per RDSO's drawing no. BA-11154 shall be strengthened by providing two additional anchor bolts.

2.2.2 Superstructures and bearings of non-standard spans including Arches and sub-structures of all bridges shall be examined under the directions of the Chief Bridge Engineer concern and certified safe by him in terms of current IRS Bridge Rules, Steel Bridge Code, Concrete Bridge Code, Arch Bridge Code, Bridge Sub Structures and Foundations code etc. read with upto-date correction slips.

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

2.2.4 This clearance is subject to the following parameters of locomotives, LHB AC/Non AC EOG variant coach and Generator Van:

(A) For Locomotives:

S. No.	Description	WAP4	WAP5	WAP7
1.	Max. axle load	18.8 + 2% t	19.5 + 2% t	20.5 +2% t
2.	Max. tractive effort	30.8 t	26.3 t	32.9 t
3.	Max. braking force at rail level	22.73 t	16.3 t	18.6 t
4.	CG height above rail level	Not exceeding 1830 mm		

(B) For LHB AC/Non AC EOG Coaches

i) AC First Class Coach (LWFAC)

Maximum Gross Load	:	43.5t
Maximum Braking Force at Rail Level	:	5.8t
CG height above rail level	:	Not exceeding 1830 mm

ii) AC 2-Tier Sleeper Coach (LWACCW)

Maximum Gross Load	:	46.72t
Maximum Braking Force at Rail Level	:	5.8t
CG height above rail level	:	Not exceeding 1830 mm

iii) AC 3-tier Sleeper coach (LWACCN)

Maximum Gross Load	:	48.8t
Maximum Braking Force at Rail Level	:	5.8t
CG height above rail level	:	Not exceeding 1830 mm

iv) AC (EOG) Pantry Car (LWCBAC)

Maximum Gross Load	:	48.2t
Maximum Braking Force at Rail Level	:	5.8t
CG height above rail level	:	Not exceeding 1830 mm

v) Generator van (LWLRRM)

Maximum Gross Load	:	56.8t
Maximum Braking Force at Rail Level	:	6.62t
CG height above rail level	:	Not exceeding 1830 mm.

vi) Non AC (EOG) 3-Tier Sleeper Class (LWSCN)

Maximum Gross Load	:	47.48t
Maximum Braking Force at Rail Level	:	5.8t
CG height above rail level	:	Not exceeding 1830 mm

vii) Non AC (EOG) Second Class (LS2)

Maximum Gross Load	:	54.9 t
Maximum Braking Force at Rail Level	:	5.8t
CG height above rail level	:	Not exceeding 1830 mm

viii) Non AC (EOG) Second Class (LS3)

Maximum Gross Load	:	54.9 t
Maximum Braking Force at Rail Level	:	5.8t
CG height above rail level	:	Not exceeding 1830 mm

2.2.5 Specific restrictions are applicable as mentioned in relevant speed certificates of hauling single/multiple locomotives issued by RDSO.

2.2.6 The above clauses have been arrived considering bridges are in physically sound condition. Zonal railway to certify the adequacy of bridges for permitting rolling stocks based on physical condition of bridges

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 On the sections where EBD of more than 1 Km is to be catered for ,second distant signal or automatic signaling shall be available failing which suitable speed restriction is to be imposed.

2.3.3 In normal single phase 25 kV AC electrified section where electric locomotive is used, provisions given in Para 22.6, 22.7, 22.8, 22.9 & 22.10 of SEM Pt.II regarding maximum permissible length of track circuits, signal feeding, maximum permissible length for operation of point motor, use of block instruments and use of AFTC/axle counters for higher catenary currents limited to 800A on single track section and 1000A on double track section shall be ensured by railway.

2.4 Traction Installation

2.4.1 The 25 kV AC OHE shall have swiveling type of cantilever assembly having the tension in the conductors regulated automatically, with a presag. The presag of 50 / 100 mm is on contact wire for a maximum span of 72 meter, 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 $1/10^{th}$ and $1/3^{rd}$ of the span, immediately after the OHE structure and the runners are in the trailing direction the maximum speed shall be limited to 120 km/h. At all other locations where 25 kV AC porcelain section insulators are installed, the speed shall be limited to 80 km/h.

2.4.3 It is recommended that the cantilevers in section should have BFB steady arm (RI No 2390) with 25mm drop bracket assembly (RI No 2360) instead of tubular 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 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 the above, the Chief Electrical Engineer of 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.

2.5 Rolling Stock

2.5.1 Before starting the operation, Mechanical/ Electrical department of the concerned Railway shall arrange to certify the track worthiness and safety of the rolling stocks. They shall also ensure proper maintenance of the stocks.

2.5.2 Railways shall ensure that at the originating station 100% brake cylinders are operative and WSP of all the coaches are functioning. If the WSP of any coach becomes defective en-route, the brake system of that particular coach shall be isolated. En-route, if required, brake system of not more than one coach may be isolated and minimum 95% brake power must be ensured.

2.5.3 Brake system of the locomotive and coaches shall be in proper working order.

2.5.4 The earthing arrangement on the coaches shall be maintained as per design.

2.5.5 The AC / Non AC EOG LHB variant coaches shall be maintained as per the "Maintenance Manual for LHB Coaches".

2.5.6 CEE of concerned railway shall ensure that, number of coaches in rake will be according to the capacity of diesel alternator set of power car and current carrying capacity of Inter Vehicular Coupler.

2.5.7 CEE of concerned railway shall ensure the modifications in the non AC EOG LHB (LS & LWSCN) coaches as per Railway Board's letter no. 2010/M/PU/1/28 dated 06-03-2012 (copy enclosed).

2.5.8 CEE of concerned railway shall ensure that, there shall be no restriction for movement of electrical maintenance staff between two power cars during run.

2.6 General

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

2.6.2 Attention is also invited to the note on "Preparation of Electrical Equipment of Diesel and Electric Locomotives for high speed operation" circulated with this office letter No. EL/3.3.15/WAM2/Gr.CON dated 24.12.1970 and the locomotive shall be attended accordingly.

2.6.3 LHB AC/ Non AC EOG LHB variant Coaches and LHB Generator Van do not infringe any clause of revised Indian Railway Schedule of Dimension (BG) -2004 (Reprint).

2.6.4 The design of WAP4 (previously WAP1 5000 hp) locomotive infringes clauses 9 (b), 12 and 13 of Chapter IV (C) of the BG Metric Schedule of Dimensions, 1973 Reprint. Railway Board have condoned these infringements vide their letter No. 96/CEDO/SR/10 dated 10.5.1996.

2.6.5 The pantograph of WAP5 locomotive in locked down condition and the surge arrestors infringe the Maximum Moving Dimensions of 1929 over non-electrified sections. After removing the pantograph pan assembly and two surge arrestors, the profile will infringe the Maximum Moving Dimensions of 1929 but will be within 'X' class loco profile. For movement of the loco in non-electrified sections, pantograph pan assembly and two surge arrestors shall be removed and the movement of the loco shall be cleared by the Railway concerned as per the extant rules applicable. In non-electrified sections where Maximum Moving Dimensions of existing 'X' class locos are not permissible, the movement shall be in accordance with the instructions issued by Railway Board and other additional instructions issued by the Zonal Railways for the movement of ODCs. Railway Board have condoned these infringements vide their letter No.95/CEDO/SR/18 dated 14.7.1995.

2.6.6 The pantograph of the WAP_7 locomotives in locked down condition and surge arresters infringe the maximum moving dimensions of 1929 over non-electrified sections. After removing pantograph pan assembly and two surge arresters, the profile will infringe the maximum moving dimensions of 1929 but will be within 'X' class loco profile. For moving the loco in non-electrified territory, pantograph pan assembly and two surge arresters shall be removed and the movement of the loco shall be cleared by the railway concerned as per the extant rules applicable. In non electrified sections where maximum moving dimensions of existing 'X' class locos are not permissible, the movement shall be in accordance with the instructions issued by the Railway Board and other additional instructions issued by Zonal railways for the movement of ODCs. Railway Board have condoned the infringements of WAP7 locomotive vide letter no. 2000/CEDO/SR/2 dt. 17.02.2000.

2.6.7 The adequacy of the brake power available on the locomotives in conjunction with the coaching stock to be used in the proposed train, vis-a-vis the signalling system available on the route, shall have to be established.

संलग्नक:

1. Commission of Railway Safety, North Eastern Circle letter no. 3499/LHB/AC/EOG/NCR/Pt.1 dated 12.03.2014.
2. RDSO Sk.96077.
3. RCF's drawing no. LE 90009.
4. Railway Board 's letter no. 2010/M/PU/1/28 dated 06-03-2012

(सी॰ मधुसूधन राव)
कार्यकारी निदेशक मानक/चालन शक्ति

प्रतिलिपि:

1. सचिव (यांत्रिक/ विद्युत/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–226001
3. महाप्रबन्धक (यांत्रिक/विद्युत/ओपरेटिंग/एस एण्ड टी)
   पूर्व मध्य रेलवे, हाजीपुर – 844 101.

संलग्नक:

1. Commission of Railway Safety, North Eastern Circle letter no. 3499/LHB/AC/EOG/NCR/Pt.1 dated 12.03.2014.
2. RDSO Sk.96077.
3. RCF's drawing no. LE 90009.
4. Railway Board 's letter no. 2010/M/PU/1/28 dated 06-03-2012

(सी॰ मधुसूधन राव)
कार्यकारी निदेशक मानक/चालन शक्ति

INDIAN RAILWAYS
EAST CENTRAL RAILWAY
HAJIPUR – 844 101
Fax : 06224-273615, Tele : 274755, 23000 (Rly)

Office of the : CME
Dated : 01.04.2014

No. ECR/MEC/CHG/432/CRS

ED (Carriage),
RDSO,
Manak Nagar, Lucknow.

Sub: Issue of speed certificate for running of 12397/398 GYA-NDLS Mahabodhi Express at 125 Kmph between GYA and MGS over ECR.

Based on the sanction received from CRS/Eastern Circle vide his letter no. 1020/COCR Car/13/370/H dated 06.11.2013, COCR was conducted by RDSO from 20.01.2014 to 22.01.2014 over GYA-MGS-GYA at 125 Kmph with 22 LHB coaches (LWLRRM-02 + LWACCN-03 + LWACCW-01 + LWFAC-01 +LWSCN-09 + LS2-02 + LS3-03 +LWCBAC-01 = 22 nos).

It is learnt that the trial was successful. However, the speed certificate is yet to be issued by RDSO. In this connection, it is informed that NCR has already obtained CRS sanction for running of 12397/398 GYA-NDLS Mahabodhi Express at a maximum speed of 130 Kmph with 22 coaches of AC and non AC mix LHB over NCR system from MGS to GZB.

It is, therefore, requested that RDSO may kindly expedite issue of speed certificate following the successful COCR of 22 coach AC and non AC mix LHB coaches between GYA and MGS section to enable ECR to obtain CRS clearance for regular running of Mahabodhi Express (12397/398) at 125 Kmph.

(D.Kamilla)
Chief Mechanical Engineer

'कामरेल्स' लखनऊ
0522-2234536
'COMRAILS' Lucknow
0522-2234538

भारत सरकार
नागर [illegible] मंत्रालय
रेल संरक्षा आयोग, पूर्वोत्तर [illegible]

GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
COMMISSION OF RAILWAY SAFETY, NORTH EASTERN CIRCLE

दूरभाष / Telephone 2234515 (P&T.)
23-291 (N.Rly.)
31-141 (N.E. Rly.)

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Hazratganj, Lucknow-226 001

सं0-3499/LHB/AC/EOG/NCR/Pt.I SAHC-18

दिनांक 12.03.2014

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विषय : Sanction for regular operation of Gaya-New Delhi Mahabodhi Express (12397/12398) by adding Second Class Non Ac EOG LHB Coach LS2 in place of LS Coach in its existing composition of 22 nos AC/Non AC EOG LHB variants coaches (LWRRM-2 + LWACCW-1, LWACCN-01, LWSCN-13 +LWCBAC-01 + LS2-04 & 22 Coaches) hauled by single WAP4/WAP5/WAP7 class of locomotive on GZB-MGS (UP & DN line) section of North Central Railway at a maximum speed of 130 kmph.

संदर्भ : महा प्रबन्धक, उत्तर मध्य रेलवे, इलाहाबाद के आवेदन पत्र सं0-355-W/CRS/Mahabodi Express (12397/12398)/GZB-MGS/NCR/Bridge दिनांक 25.02.2014.

Sanction for regular operation of Gaya-New Delhi Mahabodhi Express (12397/12398) by adding Second Class Non Ac EOG LHB Coach LS2 in its existing composition of 22 nos AC/Non AC EOG LHB variants coaches (LWRRM-2 + LWACCW-1, LWACCN-01,+LWSCN-13+ LWCBAC-01 + LS2-04 & 22 Coaches) hauled by single WAP4/WAP5/WAP7 class of locomotive on GZB-MGS (UP & DN line) section of North Central Railway as per RDSO speed certificate No. MC/LHB/Coach, dated 12.04.2012 (for running coaches LWRRM, LWACCW, LWACCN, LWFAC, LWSCN, LWCBAC except LS2 Coach) and MC/LHB/Coach dated 12.12.2012 (for second class Non AC EOG LHB Coach LS2) of North Central Railway as detailed in North Central Railway's Joint Safety Certificate No.29/Gaya-New Delhi Mahabodhi Express (12397/12398)/GZB-MGS/ NCR/2013 at a maximum speed of 130 kmph on GZB-MGS section or the permissible speed of section which ever is less.

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

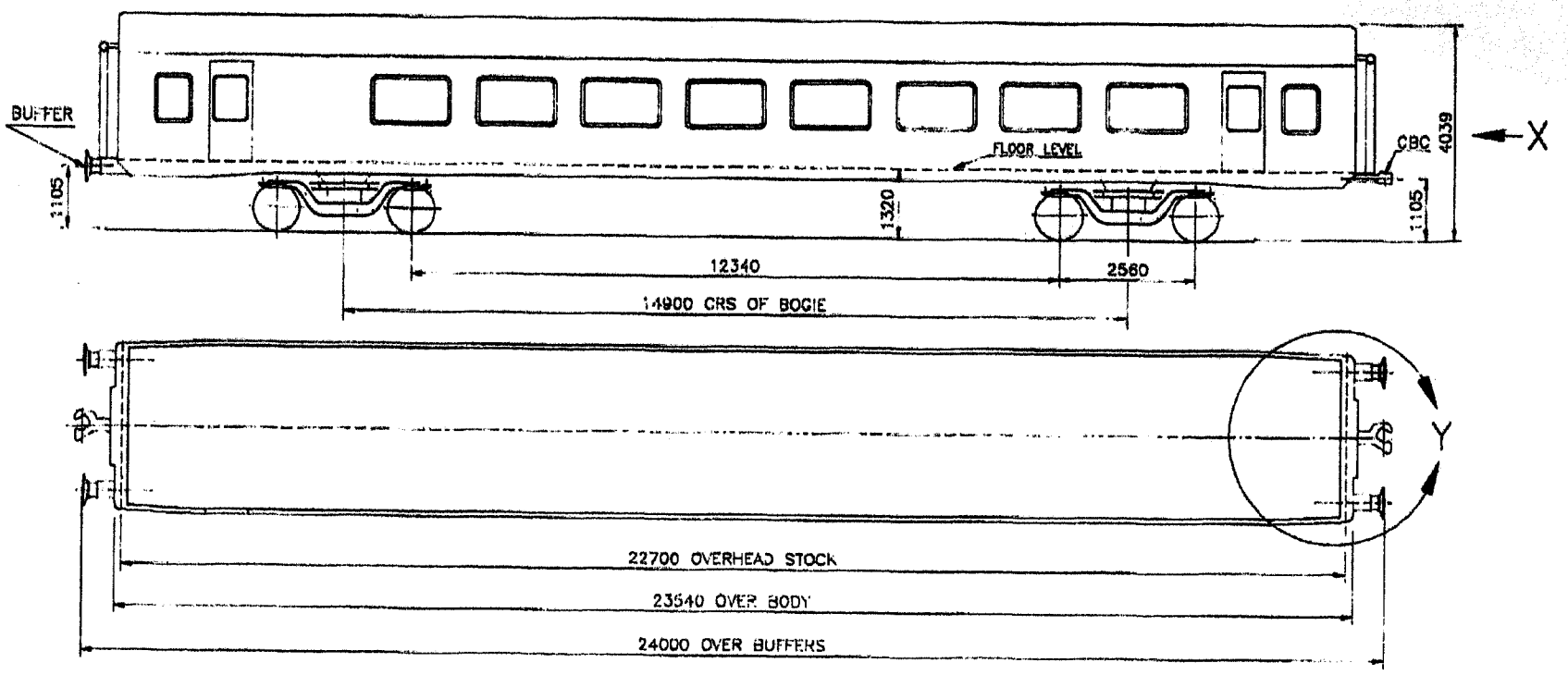
ii) Observance of all conditions as laid in RDSO's final maximum permissible speed certificate No. MC/LHB/Coach, dated 12.04.2012 and MC/LHB/Coach dated 12.12.2012 North Central Railway's Joint Safety Certificate No. 29/Gaya-New Delhi Mahabodhi Express (12397/12398)/GZB-MGS/NCR/2013 and concomitant track and bridge certificates.

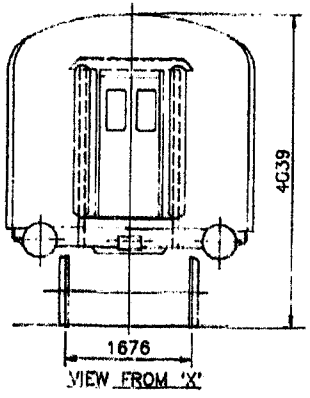
iii) CME/NCR will submit quarterly report on compliance of para 2.5.2 & 2.5.4 of RDSO speed certificate for these rakes to this office.

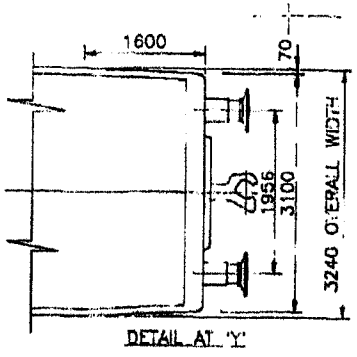
[illegible]
[illegible]
[illegible]

सं0-3499/LHB/AC/EOG/NCR/Pt.I दिनांक 12.03.2014

Copy forwarded for information to Chief Commissioner of Railway Safety, Lucknow.
All Commissioner's of Railway Safety





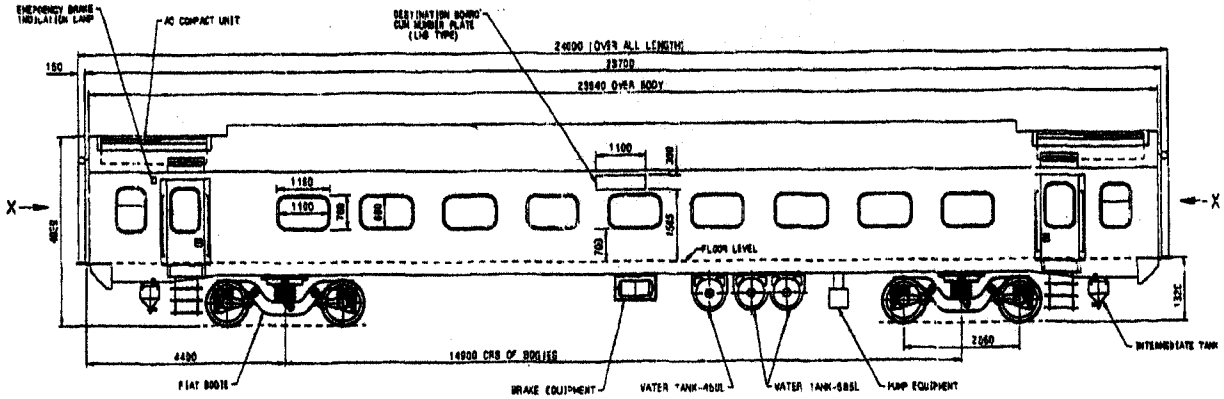


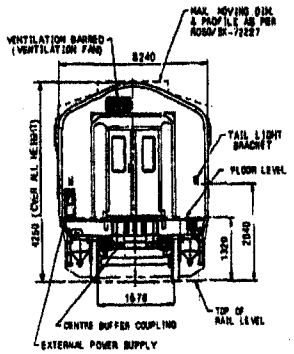
NOTE:-

BUFFERS ARE TO BE PROVIDED ONLY IN POWER CAR.

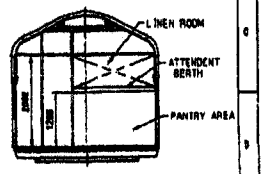
DIAGRAM SHOWING MAIN DIMENSIONS OF LHB-IR COACH

SKETCH-96077

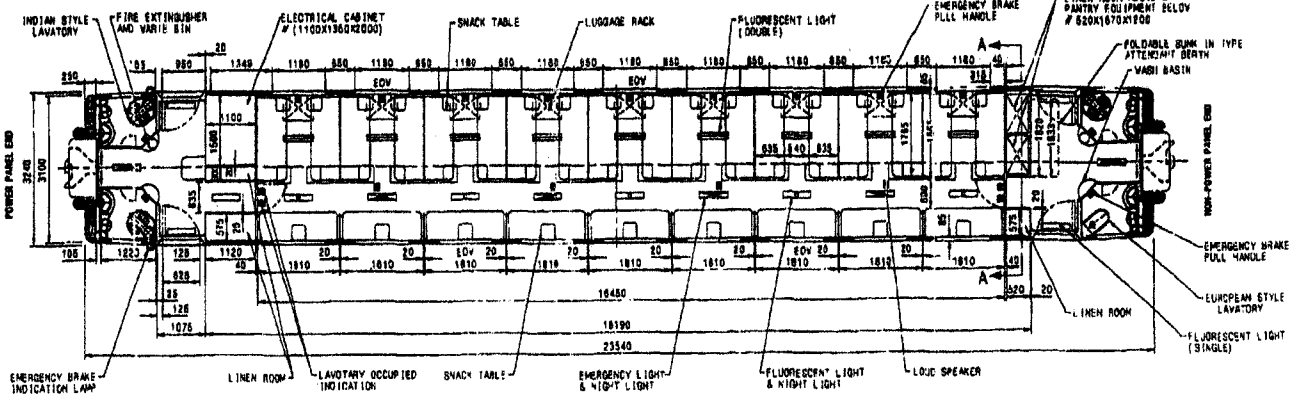




VIEW FROM-X



SECTION-AA



D — LAVATORY LIGHT
— LOUD SPEAKER
— FACIL
— EMERGENCY BRAKE
— LAV. OCCUPIED INDICATION
— EMERGENCY FLUORESCENT LIGHT & NIGHT LIGHT
— FLUORESCENT LIGHT & NIGHT LIGHT
— FLUORESCENT LIGHT (SINGLE)
— FLUORESCENT LIGHT (DOUBLE)
EOW — EMERGENCY OPENING WINDOW

NOTE :-
1. SEATING CAPACITY --- 72
2. SLEEPING CAPACITY --- 72
3. NO. OF DOORS ABLE --- 02
4. NO. OF LAVATORIES --- 04
5. NO. OF PASSENGERS PER DOOR --- 18
6. NO. OF PASSENGER PER LAVATORY --- 18
7. # INDICATES CLEAR SPACE FOR ELECTRICAL EQUIPMENT (DEPTH), (WIDTH), (HEIGHT).

ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID.
DETAIL DRGS STARTING WITH "LI" ARE INTERNAL REFERENCE LISTS ONLY AND ARE NOT FOR ISSUE.
FOR UNTOLERANCED DIMENSIONS REFER MDG0004
DATE OF FIRST ISSUE 04/09/2002

LAYOUT OF AC THREE TIER EOG
FOR LHB VARIANT COACH WITH FIAT BOGIES
RAE, COACH FACTORY, KAPURTHALA
INDIAN RAILWAYS STANDARD
PL NO. 01901357
DRG.NO. LE90009

GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
(RAILWAY BOARD)

No.2010/M(PU)/1/28

New Delhi, dated:6.03.2012.

The General Manager,
Rail Coach Factory,
Kapurthala.

The General Manager,
East Central Railway,
Hajipur.

Sub: **Issues related to AC + Non-AC EOG LHB rakes of train No.12393/12394 Sampoorna Kranti Express and future similar trains.**

Ref: **GM/RCF's letter No.M.102.04 dated 02.02.12.**

Board (MM, ML & MT) have agreed to GM/RCF's action plan suggested vide above reference with respect to the following:

(i) Under slung arrangements of 750 V panel and revised power supply system will be implemented from 2012-13 production and the existing SBCs will be secured from all sides in the coaches being manufactured in 2011-12. RCF should supply the necessary materials and associate with ECR to ensure early securing of the rakes waiting at ECR. The target of completing this work should be advised to Board.

(ii) RCF should expedite manufacture of prototype of LS & LSCN coaches with adequate capacity overhead tanks, so that WRAs are eliminated from LS & LSCN coaches. This should be undertaken within a year rather than waiting for 2014-15.

(Ajit Kumar Panda)
Director Mech.Engg.(PU)
Railway Board

Copy –

1. DG/RDSO
2. CMEs RCF/Kapurthala & ECR/Hajipur.
3. Adviser EE(G) & EDME(Chg.)/Railway Board.