



भारत सरकार रेल मंत्रालय
अनुसंधान अभिकल्प और मानक संगठन
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Government of India-Ministry of Railway -
Research Designs & Standards Organisation
Lucknow - 226 011
DiD (0522) 2450115
DID (0522) 2465310



MC/CB/AC/DD

Date: 15-11-2011

महाप्रबन्धक (इंजीनियरिंग)

1. मध्य रेलवे, छत्रपति शिवाजी टर्मिनस, मुम्बई- 400 001.
2. पूर्व रेलवे, फेयरली प्लेस, कोलकाता - 700 001.
3. उत्तर रेलवे, बड़ौदा हाउस, नई दिल्ली - 110 001.
4. दक्षिण रेलवे, पार्क टाउन, चेन्नई - 600 003.
5. दक्षिण मध्य रेलवे, रेल निलायम, सिकन्दराबाद - 500 071.
6. दक्षिण पूर्व रेलवे, गार्डन रीच, कोलकाता - 700 043.
7. पूर्वोत्तर रेलवे, गोरखपुर - 273 012.
8. पूर्वोत्तर सीमान्त रेलवे, मालीगाँव, गुवाहाटी - 781 011.
9. पश्चिम रेलवे, चर्चगेट, मुम्बई - 400 020.
10. पूर्व मध्य रेलवे, हाजीपुर - 844 101.
11. पूर्व तटीय रेलवे, बीडीए रेंटल कालोनी, रेलवे काम्पलेक्स, चन्द्रशेखरपुरा, भुवनेश्वर, उड़ीसा-751 016.
12. उत्तर मध्य रेलवे, हास्टिंग रोड, इलाहाबाद - 211 001.
13. उत्तर पश्चिम रेलवे, जयपुर - 302 006.
14. दक्षिण पश्चिम रेलवे, हुबली - 580 023.
15. पश्चिम मध्य रेलवे, जबलपुर - 482 001.
16. दक्षिण पूर्व मध्य रेलवे, आर ई आफिस काम्पलेक्स, बिलासपुर - 495 004.

Sub: Final Speed Certificate for operation of BG High Capacity AC EOG Double Decker Chair Car coaches (width 3050 mm) fitted with pneumatic suspension at the secondary stage on Fiat bogies up to maximum speed of 160 km/h on track maintained to C&M-I Vol.-I standard.

1. RCF has built BG High Capacity AC EOG Double Decker Chair Car coaches (width 3050 mm) fitted with pneumatic suspension at the secondary stage on Fiat bogies as per RCF's drawing no. LD90009. The BG High Capacity AC EOG Double Decker coaches are fitted with Fiat bogies with 16.25 t axle load and have been provided with disc brakes and CBCs. The speed potential of these coaches is 160 km/h on track maintained to C&M-I Vol.-I standard. The BG High Capacity AC EOG Double Decker Chair Car coaches (width 3050 mm) is similar to that of existing BG High Capacity AC EOG Double Decker Chair Car coaches (width 3135 mm) except reduction in coach width of 85 mm only.
- 1.1 Detailed oscillation trials & long confirmatory run of BG High Capacity AC EOG Double Decker Chair Car coach (width 3135 mm) fitted with pneumatic suspension at the secondary stage on Fiat bogies have been carried out upto maximum test speed of 180 km/h and results are contained in RDSO's Report no. RDSO/2010/TG/MT-1061/F Rev-0, Amendment-Nil dated 10.09.2010. On the basis of satisfactory results of oscillation trials, this BG High Capacity AC EOG Double Decker Chair Car coach

(width 3135 mm) has been cleared for operation up to a maximum speed of 160 km/h on track maintained to C&M-I, Vol.-I standard vide this office letter of even no. dated 14.10.2010. The oscillation trials of BG High Capacity AC EOG Double Decker Chair Car (width 3135 mm) have also been done upto the maximum test speed of 130 kmph on 2 degree curve of BZL-DKAE section of Eastern Railway. The results are contained in RDSO Report No. RDSO/2011/TG/MT-1095/F, Rev-0, Amendment-Nil dated 23.03.2011. The riding characteristics have been found satisfactory upto maximum speed of 130 kmph over 2 degree curve. On the basis of satisfactory results, this coach has been cleared for operation upto maximum speed of 160 kmph vide this office speed certificate of even no. dated 24.3.2011 followed by amendment no. 1 dated 31.5.2011.

1.2 On the basis of BG High Capacity AC EOG Double Decker Chair Car coach (width 3135mm), CCRS/Lucknow has accorded sanction for dispensation of oscillation trials for BG High Capacity AC EOG Double Decker Chair Car coach (width 3050mm) vide letter no. क्यू-17016/06/2011-तारि 213 dated 15.09.2011.

2. Based on the above, it is certified that BG High Capacity AC EOG Double Decker Chair Car coaches (width 3050 mm) are fit for operation upto maximum speed of 160 km/h on track maintained to C&M-I, Vol. I standard of Indian Railways subject to the conditions given below.

2.1 Track

2.1.1 The track shall be to a minimum standard of 52 Kg rail on sleepers to M+7 density and minimum depth of ballast cushion below the sleepers to 200 mm which may consist of at least 100 mm clean and the rest in caked up condition on compacted and stable formation.

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. In this connection, Railway Board's letter No. 65/WDO/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 upon the local conditions.

2.1.3 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 should not exceeded 100kmph. Maximum speed should be limited up to 100 kmph for curve sharper or equal to 2 degree curve and 135 kmph for curve equal to 1 degree

2.1.4 (i) Wherever condition warrant on account of corrosion on rail/weld collar, wear of rail, cupping in the welds etc necessary precautions should be taken for fish plating/joggle fish plating of the rail/weld.

(ii) Zonal Railways shall impose such further restrictions of speed as deemed fit, based on the age and condition of track and the extent of fractures/weld failures/defect generation rate occurring in the sections.

2.1.5 The track maintenance shall be in accordance with the recommendations contained in RDSO report no. C&M-I, Vol.-I. In this connection, the instructions for the maintenance of track on high-speed routes circulated to the railways under RDSO's DO letter no. CRA/509 dated 07.7.1971 and approved by Railway Board vide their letters no. 71/W6/HS/8 dated 27.8.1971 and 71/W6/HS/1 dated 21.10.1971 should also be followed.

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

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

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

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

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 should 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 Zonal Railways shall certify the adequacy of existing bridges for permitted rolling stock based on physical condition of bridges by keeping them under observations considered necessary by the Chief Bridge Engineer of Railways.

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

2.2.5 This clearance is subject to the following parameters of BG High Capacity AC EOG Double Decker Coaches (width 3050 mm):

Maximum axle load	:	16.25t
Maximum Braking Force at Rail Level	:	6.62 t
CG height above rail level	:	Not exceeding 1830 mm

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

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 should be available failing which suitable speed restriction is to be imposed.

2.4 Traction Installation

- 2.4.1 In 25kV AC traction area, the CEE of Railways shall have to ensure that the minimum height of contact wire and electrical clearances as stipulated in provision of Chapter-V and V-A, Electric Traction "Schedule of Dimension of 1676 mm gauge (BG) revised 2004" is not violated and strictly followed to ensure its safe running".
- 2.4.2 For DC OHE the condition of operation shall be specified by the CEE of the concerned Railways.

2.5 Rolling Stock

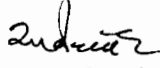
- 2.5.1 Before starting the operation, CME of the concerned Railways shall certify the track worthiness and safety of the rolling stocks. He will also ensure proper maintenance of the stocks.
- 2.5.2 The Wheel Slide Protection (WSP) device of all the coaches in the rake shall be functional at the starting station. If the WSP of any coach becomes defective enroute, the brake system of that particular coach shall be isolated.

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 BG High Capacity AC EOG Double Decker Coaches (width 3050 mm) infringes clauses 9, 10 19(b), 20(b), 29 & 30 of Chapter-IV (A) and diagram No.1D of IR BG Schedule of Dimensions, Revised 2004. These infringements of BG High Capacity AC EOG Double Decker coaches (width 3050 mm) have been condoned by Railway Board vide their letter No. 2011/CEDO/SD/RS/03 dated 27/9/2011.

संलग्नक:

1. Rly. Bd.'s letter no.2011/CEDO/SD/RS/03 dated 27/9/2011
2. RCF's drawing no. LD90009
3. CCRS Letter no.क्यू-17016/06/2011-तवि 213 dated 15.09.2011.


(राजीव विश्‍नोई)

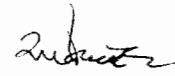
वरिष्ठ कार्यकारी निदेशक मानक / चालन शक्ति

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 / इलेक्ट्रिकल / ओपरेटिंग / एस एण्ड टी)
 - i) मध्य रेलवे, छत्रपति शिवाजी टर्मिनस, मुम्बई- 400 001.
 - ii) पूर्व रेलवे, फेयरली प्लेस, कोलकाता - 700 001.
 - iii) उत्तर रेलवे, बड़ौदा हाउस, नई दिल्ली - 110 001.
 - iv) दक्षिण रेलवे, पार्क टाउन, चेन्नई - 600 003.
 - v) दक्षिण मध्य रेलवे, रेल निलायम, सिकन्दराबाद - 500 071.
 - vi) दक्षिण पूर्व रेलवे, गार्डन रीच, कोलकाता - 700 043.
 - vii) पूर्वोत्तर रेलवे, गोरखपुर - 273 012.
 - viii) पूर्वोत्तर सीमान्त रेलवे, मालीगँव, गुवाहाटी - 781 011.
 - ix) पश्चिम रेलवे, चर्चगेट, मुम्बई - 400 020.
 - x) पूर्व मध्य रेलवे, हाजीपुर - 844 101.
 - xi) पूर्व तटीय रेलवे, बीडीए रेंटल कालोनी, रेलवे काम्पलेक्स, चन्द्रशेखरपुरा, भुवनेश्वर, उड़ीसा-751 016.
 - xii) उत्तर मध्य रेलवे, हास्टिंग रोड, इलाहाबाद - 211 001.
 - xiii) उत्तर पश्चिम रेलवे, जयपुर - 302 006.
 - xiv) दक्षिण पश्चिम रेलवे, हुबली - 580 023.
 - xv) पश्चिम मध्य रेलवे, जबलपुर - 482 001.
 - xvi) दक्षिण पूर्व मध्य रेलवे, आर ई आफिस काम्पलेक्स, बिलासपुर - 495 004.
4. मैनेजिंग डायरेक्टर, कोंकण रेलवे कार्पोरेशन लिमिटेड, बेलापुर, नवी मुम्बई - 400 614.

संलग्नक:

1. Rly. Bd.'s letter no.2011/CEDO/SD/RS/03 dated 27/9/2011
2. RCF's drawing no. LD90009
3. CCRS Letter no.क्यू-17016/06/2011-तॉवि 213 dated 15.09.2011.


(राजीव विश्नोई)

वरिष्ठ कार्यकारी निदेशक मानक / चालन शक्ति



भारत सरकार Government Of India
रेल मंत्रालय Ministry Of Railways
रेलवे बोर्ड Railway Board

No. 2011/CEDO/SD/RS/03

New Delhi, Dated 27th September, 2011

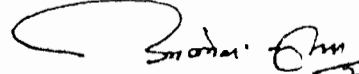
The Director General,
Research Designs & Standards Organisation,
Manak Nagar, Lucknow.

Sub : Condonation of infringement to IRSOD for EOG Air Conditioned Double Decker coaches (width 3050mm).

Ref : Your office letter no. CT/DHS/3/Coaches, dated 01.09.2011.

In reference to above, sanction of Ministry of Railways, Railway Board is hereby communicated for condonation of infringement to IRSOD for EOG Air Conditioned Double Decker coaches (width 3050mm).

The design of above EOG Air Conditioned Double Decker coaches (width 3050mm), infringes Clauses no. 9, 10, 19(b), 20(b), 29 & 30 of Chapter-IV(A) of Indian Railways Schedule of Dimensions (B.G.), Revised, 2004 as per Annexure-I, drawings & other details accompanying with your above referred letter.


(आलोक कुमार)

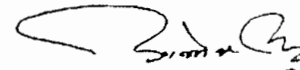
कार्यकारी निदेशक/सिविल इंजीनियरिंग/सा.रेलवे बोर्ड

No. 2011/CEDO/SD/RS/03

New Delhi, Dated 27th September, 2011

Copy forwarded for information to :

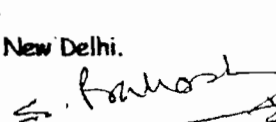
1. The Chief Commissioner of Railway Safety, Compound of DRM/NER, Ashok Marg, Lucknow w.r.t. his endorsement no. क्यू. 17012/04/2011 - त.वि., dated. 07.09.2011.
2. Executive Director/Track-I, RDSO, Lucknow.


(आलोक कुमार)
कृते सचिव, रेलवे बोर्ड

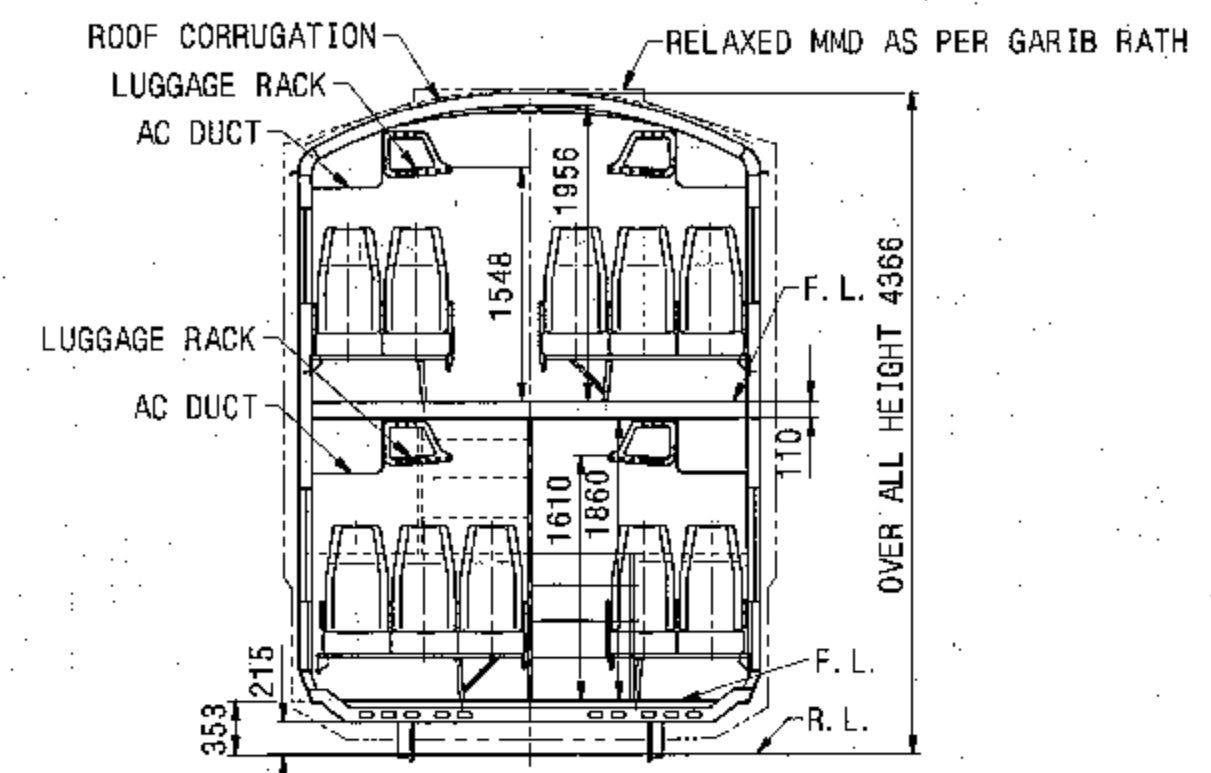
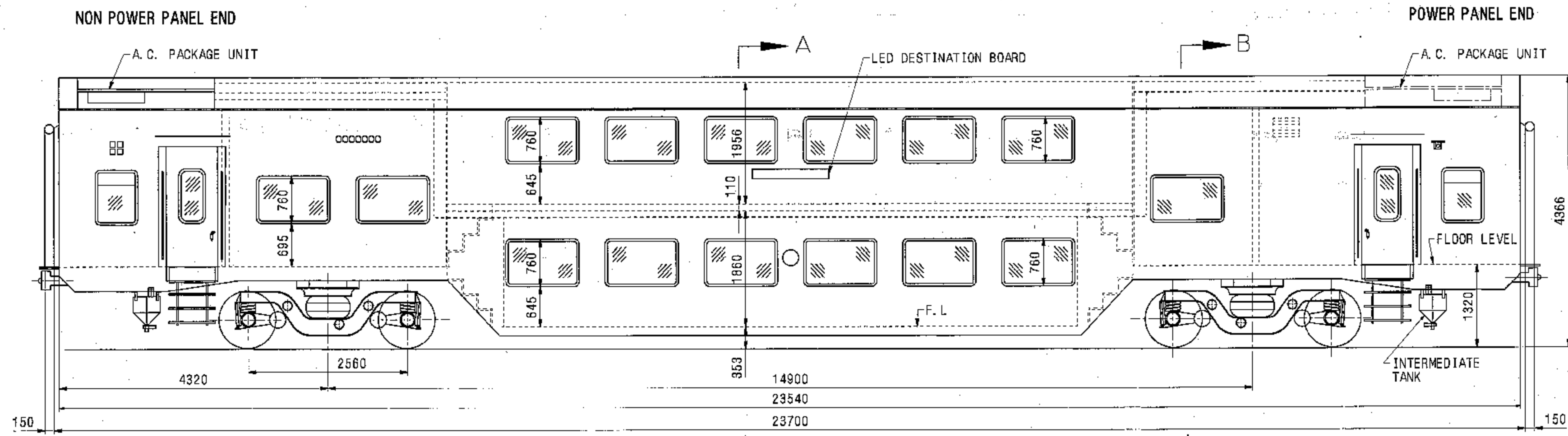
Copy to :

1. General Managers, All Indian Railways .
2. Commissioners of Railway Safety, All Circles.
3. EDME/Coaching, Railway Board, Rail Bhawan, New Delhi.

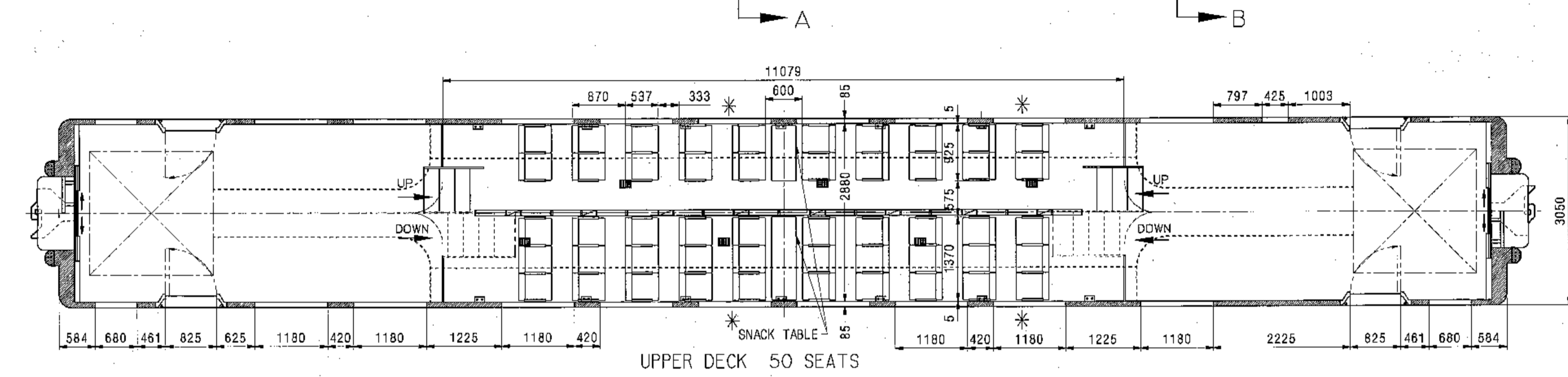
ADG/T-1


29.09.11
21.09.11

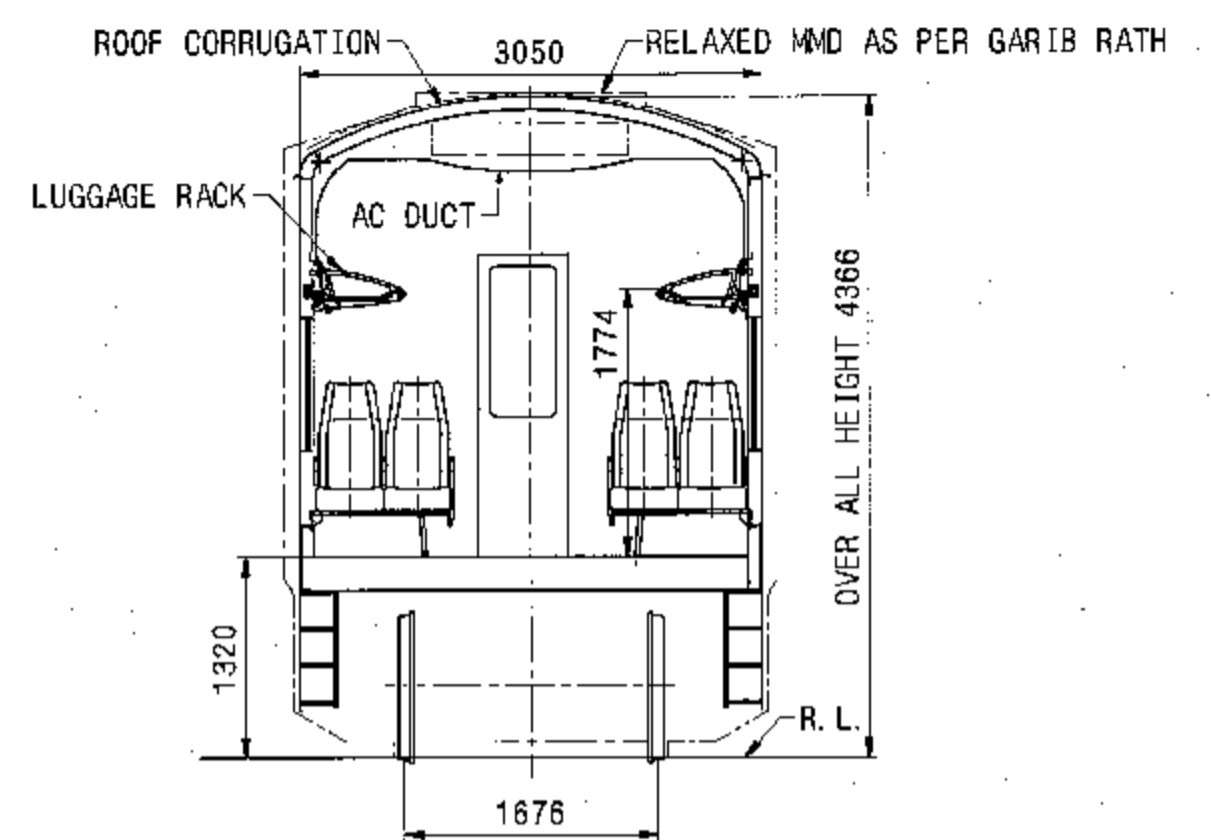
ALT. NO.	ALT. DATE	ZONE	ALTERATIONS	AUTHORITY
NIL	NIL	NIL	NIL	NIL



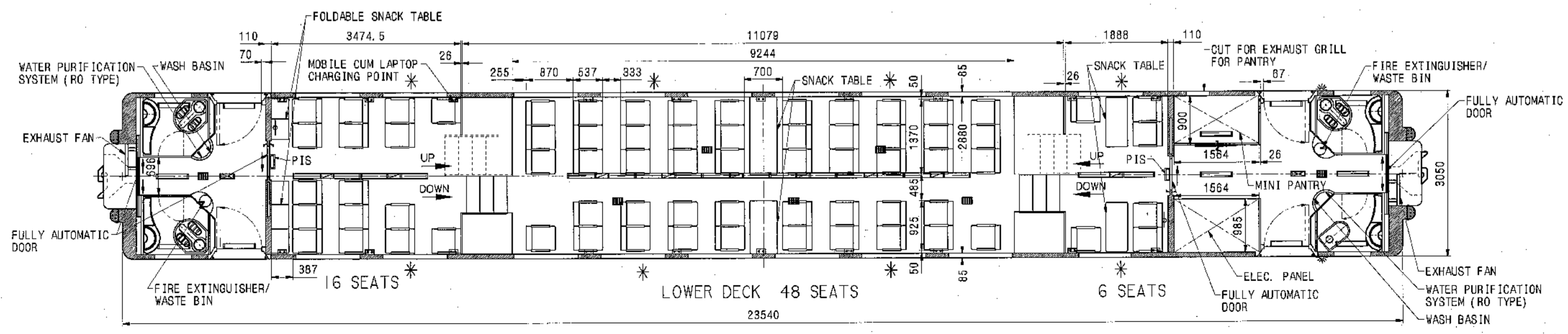
SECTION - AA



UPPER DECK 50 SEATS



SECTION - BB



LOWER DECK 48 SEATS

6 SEATS

- RAILWAY
- RAILWAY CREST
- COACH NUMBER
- FLUORESCENT LIGHT WITH NIGHT LIGHT
- FLUORESCENT DOUBLE LIGHT
- ACCIDENT EMERGENCY LIGHT
- PASSENGER INFORMATION SYSTEM
- LOUD SPEAKER
- PARCEL
- EMERGENCY OPENABLE WINDOW
- ALARM PULL
- MOBILE CUM LAPTOP CHARGING POINT

- No. OF PASSENGERS TO SEAT-----120
- No. OF LAVATORIES-----4
- No. OF DOORS ASIDE-----2
- No. OF PASSENGERS PER LAVATORY-----30
- No. OF PASSENGERS PER DOOR-----80

अकार
Enteroc
3
Lato
दरिद्रिय
Date 10

10 MAR 2011

NIL	ACCC DOUBLE DECKER (120 SEATER)	NIL	NIL	NIL	NIL	
WELD LENGTH	ITEM	DESCRIPTION & DIMENSIONS	ASSEMBLY	DETAIL DRG	MATL. & SPEC.	REMARKS
NIL	M	GROUP COACH LAYOUT & INSTALLATION			NIL	
NIL	M	FILE \\LD90009.prt (2D)				
NIL	KG	LAYOUT OF HIGH CAPACITY DOUBLE DECKER AC CHAIR CAR (EOG)				SCALE: 1:50
NIL	M ²	120 SEATER RECLINED (LHB SHELL ON FIAT TYPE BOGIES WITH AIR SPRING)				CHD
NIL	M	RAIL COACH FACTORY, KAPURTHALA				DRN
NIL	M	रेल कोच फैक्टरी कपूरथला				MSKL
NIL	M	IRIS				REF. DRG. NO. NIL
NIL	M	PL NO. NIL				DRG. NO. LD90009
NIL	M	DATE OF FIRST ISSUE: 09/03/2011				ALT. NIL
NIL	M	CGM BY: [Signature]				SIZE: A/SHEET/1/1

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e-mail : chiefcom@rediffmail.com



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टेली फैक्स/Tele Fax-0522-2233095
0522-2233087

12
28/9

भारत सरकार
नागर विमानन मंत्रालय
रेल संरक्षा आयोग

GOVERNMENT OF INDIA

MINISTRY OF CIVIL AVIATION

(COMMISSION OF RAILWAY SAFETY)

अशोक मार्ग, लखनऊ-226 001
Ashok Marg, Lucknow - 226 001

संख्या -क्यू- 17016/06/2011-तणवि/213

दिनांक:13.09.2011

सेवा में,

महानिदेशक स्टैण्डर्ड/ कैरिज,
अनुसंधान अभिकल्प एवम् मानक संगठन,
मानक नगर,
लखनऊ।

Handwritten notes and signatures:
EAC
om file
29/9/11
13/11/11
13/11/11

[ध्यानार्थ : E. D. Standards / Carriage]

विषय: Dispensation for conducting detailed oscillation trials for operation of BG AC EOG Double Decker Chair Car Coach (width 3050 mm) to RCF Drawing no.-LD 90009 approved by Railway Board's letter no. 77/M(C)/202/6 Dated:23.03.11.

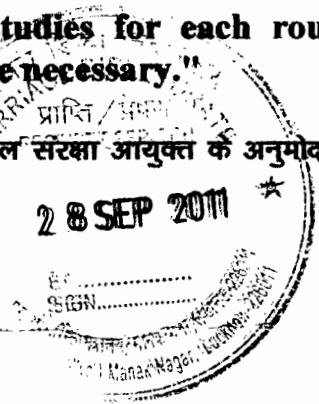
संदर्भ: अनुसंधान अभिकल्प एवम् मानक संगठन का पत्र
संख्या-MC/CB/AC/DD दिनांक-02.09.11।

The concurrence of Chief Commissioner of Railway Safety is hereby conveyed for dispensation for conducting detailed oscillation trials for operation of BG AC EOG Double Decker Chair Car Coach (width 3050 mm) with the following remark:-

" Clearance studies for each route, where it will be proposed to be introduced, will be necessary."

यह पत्र मुख्य रेल संरक्षा आयुक्त के अनुमोदनोपरान्त जारी किया जा रहा है।

28 SEP 2011



13.09.2011
(उत्तम प्रकाश)
उप रेल संरक्षा आयुक्त (यॉत्रिक)