

फैक्स/ FAX : 91-0522-2458500
91-0522-2450679
तार : रेलमानक, लखनऊ
Tel gram : 'RAILMANAK',
Lucknow
टेली ग्रेम/ Tele : 2451200 (PBX)
2450115 (DID)



सत्यमेव जयते

भारत सरकार - रेल मंत्रालय
अनुरोधानुसार अभियन्तृ और मानक संगठन
लखनऊ - 226 011

Government of India - Ministry of Railways
Research Designs & Standards Organisation
Lucknow - 226 011

No.MC/RLC/D

५२-२२८६

Dated: 2.08.2007
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The General Manager (Engg.)
Northern Railway, Baroda House, New Delhi-110 001

Sub: Final Speed certificate for operation of J&K Diesel Electric Multiple Unit (DEMU) stock manufactured by ICF, Chennai on Quazigund-Srinagar-Baramulla section of J&K area of Northern Railway upto a maximum permissible speed of 100kmph.

1. ICF, Chennai has manufactured BG Diesel Electric Multiple Units (DEMU) for Quazigund-Srinagar-Baramulla section of J&K. as per layout drg. no. ICF drg. No DMU/DPC/JK-9-0-001 for DPC, ICF drg. No DMU/TC1/JK-9-0-001 for TC 1, ICF drg. No DMU/TC2/JK-9-0-001 for TC 2 and ICF drg. No DMU/DTC/JK-9-0-001 for DTC. The shell structure of driving power car (DPC), trailer car (TC 1) and trailer car with underslung equipment (TC 2) are similar to DPC and TC of 1400 hp HHP DMU stock already in service. One unit consists of 1DPC+1TC1+1TC2+1DTC. The DEMU can be run in multiples upto 4 units.
 - 1.1 The tare and gross weights of DEMU/DPC for J&K are 4.803t and 1.293t more than 1400 hp HHP DMU/DPC. The difference in gross weight is very marginal but is well within the maximum gross load of 81.28t. The bogie of DEMU/DPC of J&K is as per ICF drg. no. DMU/DPC5-0-0-501, which is same as that of 1400 hp HHP DMU/DPC. Suspension, diagrammatic arrangement of DMU/DPC of J&K is same as that of 1400 hp DMU/DPC to ICF drg. no. DMU/DPC5-9-0-509.
 - 1.2 The tare weight of DTC of J&K DMU is 2.0 t more than 1400 hp HHP DEMU/DTC and gross weight of DTC of J&K DMU is 10.415 t less than 1400 hp HHP DMU/DTC. The tare weights of trailer coaches (TC 1) and trailer coach with underslung equipment (TC 2) of DMU of J&K are 1.2t and 7.63 t more than 1400 hp HHP DMU/TC. Gross weights of trailer coaches (TC 1) and trailer coaches with underslung equipment (TC 2) are 9.72 t and 3.29 t less than 1400 hp HHP DMU/TC, the above decrease in gross weight in TC1, TC2 and DTC is due to decrease in payload. The bogie of DTC and trailer coaches TC 1 and TC 2 of DMU of J&K is as per ICF drg. no. DMU/TC4-0-0-401, which is same as that of 1400 hp HHP DMU/TC & DTC. Suspension diagrammatic arrangement of DTC and trailer coaches TC 1 and TC 2 of DMU of J&K is same as that of 1400 hp DMU/TC/DTC to ICF drg. no. DMU/TC4-9-0-403.
 - 1.3 The oscillation trials of the 1400hp HHP DMU/DPC and TC/DTC coaches, which are similar to J&K/DEMU/DPC/TC/DTC coaches, have been carried out by Testing dte. of RDSO upto maximum test speed of 110kmph over Chennai-Bangalore section of Southern Railway to see the satisfactory riding characteristics.

1.4 The result of the trials contained in the report no.MT-250 of Sept. 2000 which shows satisfactory riding characteristics of the coach upto a maximum test speed of 110kmph on track maintained to mainline standards. Based on the trial report a speed certificate no.MC/RLC/D dt.18.10.2000 and subsequent amendment dt.7.01.2002 was issued to all the railways for operation of the 1400 hp HHP DMU at 100kmph.

1.5 In view of the above CCRS, Lucknow was approached for dispensation of oscillation trials and permit normal operation of J&K/DEMU manufactured by ICF upto a maximum speed of 100 kmph. CCRS vide his letter no Q 17015/01/2004-RS dated 11-07-2007 has accorded permission to dispense with oscillation trials (copy enclosed).

2. Based on design features, it is certified that BG Diesel Electric Multiple Units (DEMU) for Quazigund-Srinagar-Baramulla section of J&K manufactured by ICF are considered safe for operation upto a maximum permissible speed of 100kmph or maximum sectional speed whichever is lower over Quazigund-Baramulla section of Northern Railway subject to the following conditions:

2.1 TRACK

2.1.1 The track shall be to a minimum standard of 52kg rails on sleepers to M+7 density and depth of ballast cushion below sleepers of 250mm, which may consist of at least 100mm clean ballast 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 dt.19/20-10-1966 may be seen. When the Chief Engineer considers that the roadbed 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 to be decided on the basis of the existing provisions of the Indian Railways Permanent Way Manual, Second Reprint-2004.

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 & MBG-1987 standard loadings. However the bearings of span 78.8m (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 are to 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 Foundation Code etc., read with upto-date correction slips.

2.2.3 This clearance is subject to the parameters of the unit as indicated below:

(i)	Max. axle load	19.02t (DPC), 11.11t(DTC)
(ii)	Max. axle load	11.3t (TC 1), 12.9t (TC 2)

(iii)	Max. tractive effort (DPC)	15.2t
(iv)	Max. braking force	5.1t(DPC), 4.09t(TC/DTC)
(v)	C.G.height above rail level	Not to exceed 1830mm

2.3 SIGNALLING

2.3.1 Provisions 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 1Km 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 Rolling Stock

2.4.1 Before initiating the operation, CME of the railway will certify the track worthiness and safety of the rolling stock. He will also ensure proper maintenance of the rolling stock.

2.5 GENERAL

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

2.5.2 The J&K DEMU, DPC and TC coaches infringe clause no. 5, 12 and 19(b) of chapter IV(A) to Schedule of Dimension, revised, 2004 and clause no. 14(b) of chapter IV(A) of SOD- 1973 Reprint. These infringements have been condoned by Board vide their letter no.2007/CEDO/SR/32 dt:27.07.2007 (copy enclosed).

DA:

1. ICF drg. No DMU/DPC/JK-9-0-001
2. ICF drg. No DMU/TC1/JK-9-0-001
3. ICF drg. No DMU/TC2/JK-9-0-001
4. ICF drg. No DMU/DTC/JK-9-0-001
5. CCRS/LKO's letter no Q 17015/01/2004-RS dated 11-07-2007
6. Board's letter no. 2007/CEDO/SR/32 dt.27.07.2007.


(S. Mani)

Executive Director Standards / Motive Power

Copy to:

1. Secretary (Mech.), Railway Board, Rail Bhavan, New Delhi- 110 001.
2. The General Manager (Mech./Optg.), Northern Railway, Baroda House, New Delhi-110 001.

DA: as above


(S. Mani)

Executive Director Standards / Motive Power

भारत सरकार GOVERNMENT OF INDIA
रेल मंत्रालय MINISTRY OF RAILWAYS
(रेलवे बोर्ड RAILWAY BOARD)

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SN 2286

No.2007/CEDO/SR/32

New Delhi, dated 27.07.2007.

The Director General/Track,
RDSO, Manak Nagar,
Lucknow-226011.

Sub: Condonation of infringements for J&K DEMU stock manufactured
by ICF, Chennai.

Rel: Your letter No. CT/DDL/DMU, dated 11.07.2007.

With reference to your application referred above, sent through the
CCRS, Lucknow, the sanction of Ministry of Railways, Railway Board is
hereby communicated for condonation of infringements to Indian
Railway(BG) Schedule of Dimensions Revised, 2004 & SOD-1973 Reprint for
J&K DEMU stock manufactured by ICF, Chennai.

The design of these coaches infringes clause No. 5.12 & 19(b) of
Chapter-IV(A) of B.G. Schedule of Dimensions Revised, 2004 and clause
14 b) of chapter IV(A) of SOD-1973 Reprint as shown in Annexure-I, drawings
and other details enclosed with your above application.

(T.Gupta)

Executive Director Civil Engg.(G)
Railway Board.

No.2007/CEDO/SR/32

New Delhi, dated 27.07.2007.

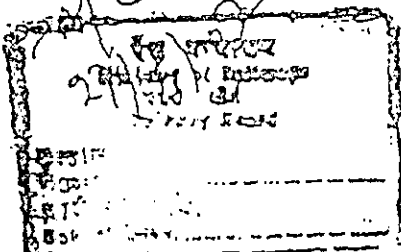
Copy forwarded for information to:

- (i) The CCRS, Compound of DRM/NER, Ashok Marg, Lucknow -226001 w.r.t. his
endorsement No. सं. 17015/01/2004-आर.एन. dated 16-07-2007.

(T.Gupta)

for Secretary, Railway Board.

u/c



CHIEFCOM
chiefcom@sens.iamet.in
मुख्य/संयोजक



भारत सरकार
नागर विमानन मंत्रालय
(रेल संरक्षा आयोग)
GOVERNMENT OF INDIA
MINISTRY OF CIVIL AVIATION
(COMMISSION OF RAILWAY SAFETY)

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फोन / Ph. - 2629743 (P&T)
31-264 N.E. Rly. 31-570
N. Rly. 23-290
टेली फैक्स / Tele Fax - 0522-2626608

अशोक मार्ग, लखनऊ-226 001.
Ashok Marg, Lucknow-226 001.
दि - 11-7-2007

संख्या - क्यू 17015/01/2004-आर.एस.

सेवा में,
महानिदेशक,
अ०अ०मा०सं०,
मानक नगर,
लखनऊ।


(ध्यानार्थ-श्री पी.के.अग्रवाल, कार्यकारी निदेशक / सवारी डिब्बा)

विषय: जम्मू-कश्मीर के काजीगुंड-श्रीनगर -वारामुला खण्ड में प्रस्तावित चलने वाली डी.जी.
डीजल इलेक्ट्रिक मल्टिपल यूनिट (DEMU) के दोलन परीक्षण से छूट हेतु आवेदन।

संदर्भ: आपका पत्र सं० MC/RLC/D दिनांक 2/3-07-2007।
सं. 2256

आपके सन्दर्भ में दिये गये पत्र के संबंध में सूचित करना है कि मुख्य रेल संरक्षा आयुक्त ने जम्मू-कश्मीर में चलाये जाने वाली विषयागत DEMU के दोलन परीक्षण न करने की छूट हेतु अपनी स्वीकृति प्रदान कर दी है, यह स्वीकृति इस शर्त के साथ प्रदान की जाती है कि इस DEMU के फाइनल स्पीड सर्टिफिकेट को जारी करते समय 1400hp HHP DMU के स्पीड सर्टिफिकेट में वर्णित किसी भी शर्त को कम न किया जाये तथा इसके स्पीड सर्टिफिकेट की एक प्रति इस कार्यालय को भी भेजी जाये।

उपरोक्त पर मुख्य रेल संरक्षा आयुक्त का अनुमोदन प्राप्त है।


(आशुतोष पंत)
उप रेल संरक्षा आयुक्त (वि.क.)
11-7-2007

See No. 2761

MC/RLC/D से प्राप्त की
दि 12/7