



सत्यमेव जयते

GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS

(For Official Use Only)

EXAMINATION GUIDLINES FOR BPC VALIDITY OF LVPH RAKES



No. IRCAMTECH.M.GWL.LVPH
20th January – 2021

अभिसंधि RDS
रेल अग्रदूत Transforming Railways



Indian Railways
Centre for Advanced Maintenance Technology

Maharajpur, Gwalior – 474005

FORWARD

Indian Railways are introducing a new design of Parcel van to enhance revenue by improving the parcel carrying capacity of the trains. These coaches have a carrying capacity of 24 tones and are capable of operating at 130kmph.

It has been manufactured by the Rail Coach Factory (RCF), Kapurthala on the Stainless Steel Shell on Linke Hofmann Busch (LHB) platform with Secondary Air Spring suspension on FIAT Bogie. It has Stainless Steel Floor with collapsible shutters inside for parcel segregation. Transportation code of LVPH has been allotted for this design.

Railway board vide letter no.2020/M(C)/202/4 VP Pt dated 06.01.2021 advice IRCAMTECH to frame examination guidelines for LVPH rakes for exploring the possibility of extending the validity of BPC up to 15 days or 7500 KM whichever is earlier.

Based on feedbacks and suggestion from various coaching depots, maintenance guideline have been prepared and being submitted to Railway Board accordingly.

I am thankful to South Western Railway & North Western Railway for their extensive interaction, feedback and suggestions in finalizing these guidelines.

These maintenance guidelines will help to field staff for smooth running of parcel train.

RDSO, Lucknow
Date: 20.1.2021

(Jitendra Singh)
Principal Executive Director

Contents

1	Introduction:.....	1
1.1	Terms of Reference:	1
1.2	Methodology Adopted:	1
2	Recommendations:.....	2
3	References:	5

1 Introduction:

Indian Railways recently introduces running of LVPHs as dedicated parcel rakes to enhance revenue by improving the parcel carrying capacity of the trains. The state-of-the-art technology is based on LHB platform like other mail and express trains.

Railway board vide its letter no 2020/M(C)/202/4 VP Pt dated 06.01.2021 advised CAMTECH to examining the feasibility of extending BPC validity of LVPH to 7500 KM or 15 days or whichever is earlier.

Railway Board earlier issued examination guideline for dedicated parcel rakes vide letter no. 97/M(C)/202/4 dt-22.11.2010 & 95/M(C)/141/1 Pt dt-14.06.2017. However, these guidelines were issued basically in context of dedicated parcel rakes of ICF parcel vans.

Presently LVPHs based parcel rakes are running on the same pattern as ICF parcel Vans based upon Para 6 of Revised maintenance pattern of Coaching trains issued vide Railway Board letter no. 95/M(C)/141/1 Pt dated 14.06.2017.

These maintenance guidelines have been finalized after getting suggestions and feedback from Zonal Railways and will help field staff in smooth running of LVPH coaches.

1.1 Terms of Reference:

Railway board vide letter no. 2020/M(C)/202/4 VP Pt dated 06.01.2021 advice IRCAMTECH to frame examination guidelines for LVPH rakes for exploring the possibility of extending the validity of BPC up to 15 days or 7500 KM whichever is earlier. Therefore, following Terms of References have been considered for this report.

- a) Feasibility of extending of BPC of LVPH to 7500 KM or 15 days or whichever is earlier.
- b) Examination & Maintenance guideline for LVPH Rakes.

1.2 Methodology Adopted:

Video Conferences were held with Zonal Railways through CISCO Webex links on 15/01/2021 and 19/01/2021 for drafting guideline of extending the validity of BPC from 4500 Km/10 days to 7500 Km or 10 days whichever is earlier (2 days grace period is allowed if rake is moving toward the base depot)of LVPH (LHB) rakes.

The following information was collected and relied upon

- a) Discussions held during VC on 15.01.2021, 19.01.2021 and the views expressed by different members.
- b) Field data & suggestion received from Zonal Railways i.e. NWR,

SWR/SBC/UBC, CR/BB/SUR/BSL/NGP, NR/HQ/FZR/UMB, ER& SCR

c) Various instructions issued by Railway Board and RDSO on related subjects.

2 Recommendations:

Based upon the deliberations held during Video Conferences, feedback and suggestions given by Zonal Railways, following guidelines for the Pattern of maintenance for LVPH Parcel Express trains with BPC validity up to 7500 KM or 10 days whichever is earlier (2 days grace period may be allowed if rake is moving toward the base depot).

SN	Descriptions
1.	<p>The Dedicated Parcel Express trains of LVPH coaches shall be formed on close circuit (CC rake) pattern at nominated base depot for BPC validity up to 7500 KM or 10 days whichever is earlier (2 days grace period may be allowed if rake is moving toward the base depot). These coaches can run at max allowed speed of 130kmph. The running of LVPH Coaches at such speeds require timely attention of its assembly/sub-systems to avoid wheel shelling & other components failures. Therefore each LVPH coaches/rakes should be allotted a base depot to ensure timely maintenance of schedules of coaches properly.</p> <p>Nominated Base depot must have requisite availability of infrastructure, manpower and maintenance spares.</p> <p>Each LVPH rake will be required to undergo a primary maintenance on the pit line for a clear 6 hours slot. If such a base depot/station does not have requisite infrastructure and pit line slots, the rake may be maintained at the nearest coaching depot where such facilities are available. (Rly. Board letter no. 97/M(C)/141/1 Pt. dt-14.06.17 as maintenance pattern-6).</p>
2.	<p>The brake power certificate of the Dedicated Parcel Express trains, to be issued by the primary end, shall be valid provided the rake integrity is not broken or changed, or the train engine is not changed. (Rly. Board letter no. 2003/M(C) 141/19Pt dt-28.06.2007)</p>
3.	<p>For circuits where the total round trip journey is greater than 7500Kms, the rakes shall also be required to undergo a detailed pit line examination at the other end (or at the nearest coaching depot) where requisite infrastructure is available.</p>
4.	<p>If rake integrity is broken or the train engine is changed, this certificate should be revalidated by Engineer (C&W) through endorsement in the column provided on reverse after ensuring brake continuity, provided the parcel van(s) being attached, if any, have been maintained as per above noted guidelines. (Rly. Board letter no. 98/M(C)/137/19 Pt. dt-14.11.2006)</p>

Examination guideline for BPC validity of LVPH Rakes

5.	All the LVPH parcel vans running in Dedicated Parcel Express trains must be weighed and scrupulously checked for overloading (over the designed carrying capacity for the respective types) before commencement of each leg of journey.
6.	Rolling in examination must be necessarily conducted at en-route stations in accordance with extant guidelines.(IRCA part 4, Appendix E-4.1.8)
7.	All Open line maintenance schedules viz.,D1 ,D2±3, D3±15 schedules and SS-1 shall be carried out in the nominated base coaching depot, as applicable for coaches running in Mail/ Express-trains, while the workshop attention i.e., POH shall be continued to be given by the nominated workshop.(as per LHB Maintenance manual)
8.	Should there be a requirement of attaching the Parcel vans to Mail/Express trains in emergent situations, the same must be preceded by a thorough pit line examination. Such Parcel Vans shall, however, follow the pattern of maintenance as for the concerned mail/express train.
9.	It is essential to have an integration of COIS and FOIS with CMM module for monitoring of km earned by rake, BPC validity and performance of LVPH parcel trains etc.
10.	Details of LVPH rake to be entered in CMM module by Zonal Railways.
11.	Zonal railway should maintain records of creation and running of LVPH rakes and monthly performance report of rakes to be submitted to Railway Board.
12.	CRIS to provide information for advance planning of maintenance schedules of LVPH rakes with auto report generation for LVPH parcel trains becoming due for examination in next three days and running overdue for examination etc.
13.	The Battery of LVPH are being charged at the PM /SM end. From Practical experience it is seen that the battery charge gets exhausted in 4 days. Hence battery charging points have to be identified en-route or at loading/unloading points.
14.	Loco-pilot and guard should correctly logged the kilo-meters earned on BPC otherwise validity of BPC should be reduce to 07 days..
15.	En-route STR/GDR checks points has to be specified for each parcel train.
16.	It should be ensure that loading in LVPH should be done uniform and even manner. It should certified by commercial staff for uniform loading.
17.	Due to any emergent reason if the train is stable more than 24 hrs after release from pitline, Rake should allowed on GDR check up to next C&W point for examination and STR examination should invariably be done on

	pit to revalidate the pit examination. (Rly Board Letter No 2008/M (N)/951/13 dt: 28.08.09).
18.	Zonal Railway to ensure that following system of each LVPH coach are to be maintain in proper working condition i.e. 1) WSP, 2) Air spring, 3) brake system ,4) battery power for WSP & LED light, 5) coupler & draft gear,6) Working of doors & its locking arrangement 7) FIBA & others components of bogie. (as per LHB maintenance manual)
19.	The LVPH rake must have a either LSLRD for the Guard and also to facilitate running of the rakes in HOG mode to enable constant charging of LVPH batteries from the engine HOG to LSLRD or power car otherwise the charge of LVPH batteries may not sustain beyond 7 days. Therefore BPC in such situation should be reduced to 7 days. The WSP arrangement in LHB coaches requires a control voltage of 24 V.
20.	To handle attachment / detachment of LVPH, apart from CBC and BP & FP uncoupling / coupling, IVC uncoupling/ coupling is also involved. Railway may issue JPO on this issue.

3 References:

1. Maintenance Manual for LHB Design coaches dated April 2013
2. IRCA part III & IRCA Pt- IV
3. Railway Board letter no. 2020/M(C)/202/4 VP Pt dated 06.01.2021
4. Railway Board letter no. 97/M(C)/141/1 Pt. dt-14.06.2017
5. Railway Board letter no. 97/M(C)/202/4 dated 22.11.2010
6. Railway Board Letter No 2008/M (N)/951/13 dt: 28.08.2009
7. Railway Board letter no.2003/M(C) 141/19Pt dt-28.06.2007
8. Railway Board letter no.98/M(C)/137/19 Pt. dt-14.11.2006