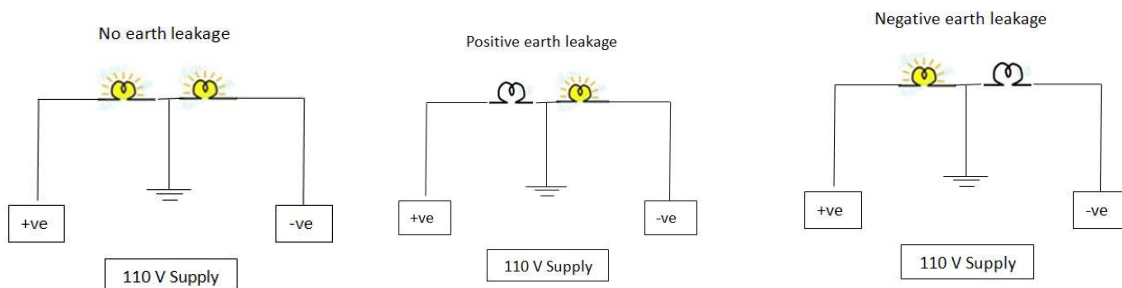


Good work done in the year 2022-23

1. Development of Gadget to check 110 DC supply for Positive and Negative current leakage in K05 relay:

Instance of positive and negative current leakage were noticed in K05 relay of LHB coaches during course of maintenance. To detect any leakage of current, a gadget has been developed by NCC Wadibunder coaching depot and the coaches are checked with the help of gadget in D2 and D3 schedule for current leakage in system. Working principle of the same is as under:

1. Two 110 dc lamps of same wattage are connected in series.
2. One connection for earth is tapped in between the series lamp as shown in the figure.
3. Then Positive and negative ends of the gadget are connected at wagon no 63 and 65 respectively and the earth end to the coach body.
 - If both the lamps glow there is no leakage current present.
 - If anyone lamp glow there is either of the leakage current present.
 - If lamp on the positive end glows it can be concluded that there is negative current leakage and if lamp on the negative end glows it can be concluded that there is positive current leakage.
4. To rectify the leakage current we have to shut off MCB one by one to identify from which instrument the leakage current is coming. Once it is identified then all wiring of that instrument is checked one by one and the issue is resolved.

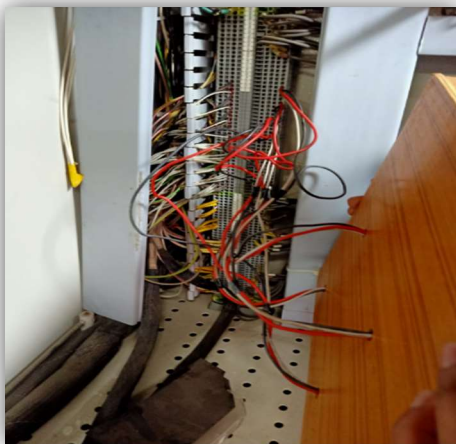


2. Development of WIFI (WSP system intelligent fault indicator):

LHB Coaches are provided with wheel slide protection device (WSP). WSP control unit is a combination of various electronic cards. The WSP provided in the system prevent wheel sliding. Speed sensors, the part of the system detect the speed of the wheel and sends signal to the processor unit. The processor unit evaluates the received signal from speed sensor of the vehicle and generates signals enabling the dump valve / antiskid valves to control the brake cylinder pressure in case of any locking / skidding.

In present maintenance practice, if an error in the PCB Card was detected, the same was been rectified during maintenance but its efficacy could not be ensured in maintenance siding being coach in static condition. To remove this maintenance bottleneck WIFI (WSP system intelligent fault indicator) has been developed in-house which facilitate testing of the system after attention of any electronic card simulating running condition of coach while the coach is remain stationary under maintenance in coaching depot.

This innovation will also help to check functioning of WSP system in coaches identified developing shelling on wheel tread.



'WIFI' can be easily by replacing wago wiring of all speed sensors of WSP control unit with the PWM generator wiring



'WIFI' (WSP system intelligent fault indicator)

How 'WIFI' works:

'WIFI' is a portable device in which PWM (pulse width modulation) are used to generate sensor signal. It modify the pulse width frequency of sensor signal to check the performance of WSP system when coach is pretended to be running at particular speed.

It can be used to check the performance by replacing wago wiring of all speed sensors with the PWM generator wiring. By adjusting frequency & duty cycle in PWM generator, WSP system performance can be checked at any particular speed.

'WIFI' is very useful to ensure correctness of suspected parts of WSP system line dump valve, connectors, dump valve microprocessor boards & connectors etc. without any time delay & it also helps to find the exact issue with the system which is very helpful to rectify the issues within time. It will also cut dependency on OEM.



State of the art, Linke-Hoffmann Busch (LHB) stock coaches received from ICF, Chennai have been successfully commissioned in train no. 12123/24 Deccan Queen Express on 22/06/2022. AC coaches and Vistadome coaches are equipped CCTV surveillance system and Heat & smoke detection system/ Fire & Smoke detection and suppression system.



Deccan Queen gets LHB rakes



Deccan Queen, the first deluxe train of the Indian Railways, on Wednesday chugged to Pune from Mumbai with a new Linke Hofmann Busch (LHB) rake that is considered safer and comfortable as compared to the conventional ones, officials said.

Shivaji Sutar, chief public relations officer of Central Railway (CR), said that the first run of Deccan Queen with LHB coaches from Chhatrapati Shivaji Maharaj Terminus (CSMT) was much-awaited.

अपघातरोधक 'दख्खनची राणी'

म. टा. प्रतिनिधी, मुंबई

मुंबई-पुणे दरम्यान प्रवाशांच्या अप्पासंतीची असलेली दख्खनची राजी (डेक्कन क्वीन) आता अपघातरहितच अर्थात स्फुरणची इंधनाने धावू लागली आहे. उडवावडा रंगमंतीची आणि अपघातशील इंधनाच्या तुलनेत अधिक सुरक्षितता, वेग धारण करणारी गाडीय धमल, यांमुळे नव्या रूपातील या गाडीला व्हिहल्यच दिवशी प्रवाशांच्या चांगला प्रतिसाद लाभला.



नव्या रूपातील
गाडीचे प्रवाशांकडून
कौतुक

छत्रपती शिवाजी महाराज टर्मिनस येथून साह्याळी १५ व्या सुमारास वज्रीन अणुघातरोधक डब्यासह डबकन क्वीन एम्ब्रेसिस् पुण्यासहरी रवाना झाली. या गाडीतील आसमंतात एक डबरा २२० असून, सर्व आसमे अस्थिरित आहेत. यात पाच अणु विकीरणीयकांचा समावेश आहे. प्रवासी घरीनून गाडीतील रीसॉल्वीव्ही कौतुक करणेत आले, असे रेल्वे अधिकाऱ्यांनी सांगितले.

गाडीमध्ये यातूनकूलित 'हायड्रोजन' डब्यासह १५ व्या सुमारास वज्रीन अणुघातरोधक डब्यासह डबकन क्वीन एम्ब्रेसिस् पुण्यासहरी रवाना झाली.

डेक्कन क्वीनचा प्रवास...

- जून १९३०मध्ये सात हज्जांची गाडी
- एप्रिल १९७० पासून १२ डबे
- १९९५मध्ये हज्जांची संख्या १७धर
- १५ ऑगस्ट २०११ला डेक्कन फ्लायटोम कोयची जोड
- २२ जून २०२२ एलायन्सची हज्जासह नवीन रंगसंगतीचे डबे

समवेत आहे, प्रवासी धावतून वाडीतील रंगमंचावरचे कौतुक करायला आले, असे रेल्वे अधिकाऱ्यांनी सांगितले.

‘गाडीमधे वातानुकूलित ‘डायनिंग’ हल्लासच चार वातानुकूलित बेंचे आम्ह.

आठ दिलीप आमन, एक पारदर्शक (विस्टाडोम), एक सहामन दिलीप श्रेणीसच हार्ड बेड वॉन असे ‘डेअर आलन, रेल्वेदेवी आणि प्रवाशांच्या

मनात भारतीय रेल्वेतील हेक्कन कवीनेचे विशेष स्थान असल्याने हा ऐतिहासिक क्षण मोबाइलमध्ये टिप्पयासहरी अनेकांनी घट्टी केले आहे

Deccan Queen gets more lighter, speedier

KAMAL MISHRA
Mumbai

Known for its impeccable record of right time start and arrival, the Deccan Queen on Wednesday departed in its new avatar with New LHB coaches. LHB Vistadome coach and LHB Dining Car. Linke Hofmann Busch or LHB coaches are way ahead in terms of technical aspect as compared to their counterparts known as Integral Coach Factory (ICF) coaches.

Fitted with the new coaches worth Rs 58 crore.

the Queen left for its destination amidst clapping of passengers, who prefer the deluxe train when travelling between Mumbai and Pune.

The train was booked to its full capacity of 1,220 seats on Wednesday.

Started on June 1, 1930, the Queen over the last 92 years has grown from a mere medium of transportation between two cities into an institution binding generations of intensely loyal passengers.

The color scheme of the new rake, green and red



combination with yellow strip, has been designed to reflect the train's heritage value and modernity.

Explaining the difference

between ICF and LHB coaches, a senior CR official said, "LHB coaches are lighter in weight, have higher carrying capacity,

higher speed potential of operating at 180 kmph, increased coach life and better safety features as compared to ICF coaches."

Initially, the train was introduced with 2 rakes of 7 coaches; each one of which was painted in silver with scarlet mouldings and the other with royal blue with gold lines. The under frames of the coaches of the original rakes were built in England while the coach bodies were built in the Matunga workshop of the Great Indian Peninsula Railway.

एलएचबी कोचों के साथ नए अवतार में सजी डेक्कन क्वीन

दोपहर संवाददाता • मुंबई

डेक्कन क्वीन, इस क्षेत्र के 2 महत्वपूर्ण शहरों की सेवा के लिए आरंभ की गई पहली डीलक्स ट्रेन है, जिसे उपयुक्त रूप से पुणे के नाम पर रखा गया था, यह ट्रेन 22 जून को अपने नए अवतार के साथ रवाना हुई। एलएचबी कोचों के साथ डेक्कन क्वीन की यात्रा बहुप्रतीक्षित थी, जो 22 को अपने प्रसन्न और आनंदमयी यात्रियों और रेल फेन्स की



करतल ध्वनि के साथ रवाना हुई। डेक्कन क्वीन के 'सही समय पर प्रस्थान' और 'आगमन' के लगातार रिकॉर्ड से दोनों शहरों की जनता खुश है। अपने समृद्ध इतिहास के पिछले 92 वर्षों में, ट्रेन दो शहरों के बीच परिवहन के एक मात्र माध्यम से अत्यधिक निष्ठावान (लॉयल) यात्रियों की एक मजबूत बार्डिंग से विकसित हुई है।

नए अवतार में

एलएचबी कोच के साथ चली, यात्रियों में खुशी



■ मुंबई, नवभारत न्यूज नेटवर्क. मुंबई-पुणे के बीच चलने वाली पहली डीलक्स ट्रेन डेक्कन क्वीन बुधवार से नए अवतार में आ गई है. पूरी तरह एलएचबी कोच के साथ चलेगी. बुधवार को डेक्कन क्वीन की यात्रा को लेकर यात्रियों में अत्यधिक उत्साह दिखा. डायनिंग कार वाली देश की एकमात्र मेल-एक्सप्रेस ट्रेन है.

92 साल से सेवा जारी

डेक्कन क्वीन को 'सही समय पर प्रस्थान' और 'आगमन' के लगातार रिकॉर्ड के लिए जाना जाता है. यह डीलक्स ट्रेन पिछले 92 वर्षों से दो शहरों के बीच तेज परिवहन का साधन बनी हुई है. मध्य रेलवे के सीपीआरओ शिवाजी सुतार ने कहा कि एलएचबी कोच के साथ डेक्कन क्वीन की यात्रा अब अधिक सुविधाजनक एवं सुरक्षित होगी.

4. Display of Make in India Lion sculpture at Matheran Railway Station:

For the tourist attraction, a lion sculpture has been installed at Matheran station. This sculpture is prepared by utilizing the approximate 500 kgs scrap material such as spring, gears, nut bolts, bearings and coaching scrap materials released and with existing infrastructure available at CSMT coaching depot. Transportation of above sculpture to hilly terrain was successfully carried out by this division.



5. Successful commissioning, maintenance & operation of Vande Bharat Express....

Mumbai division, which was previously dealing with only ICF and LHB stock, was allotted two Semi High Speed Train, "Vande Bharat Express" between CSMT – SNSI and CSMT- SUR respectively. The task of quickly gearing up for the maintenance and operation of the specialized coaching stock has been successfully carried out by the dedicated team of Coaching branch of Mumbai Division.

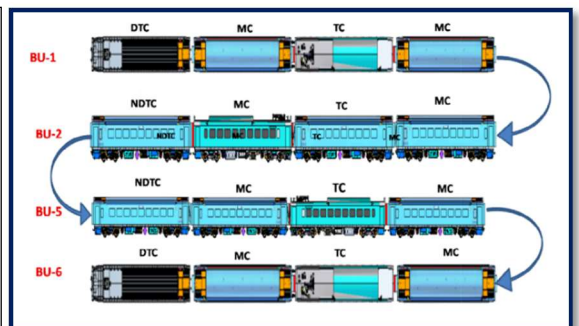


The indigenously designed train set of Vande Bharat Express is equipped with state-of-the-art passenger amenities. It provides a faster, more comfortable and more convenient travel experience to rail users.

The coaches are designed with the objective of providing more safety, better seating and suspension.

Salient Features:




- *Intelligent braking system which enables better acceleration and deceleration (**as reaching a speed of 0 to 100 kilometres per hour in just 52 seconds**).*
- *The maximum service speed of this train is **160 KMPH**.*
- *At the terminal station no reversion is required.*
- *The Vande Bharat 2.0 trains have the **KAVACH***
- *All coaches are equipped with automatic doors; GPS based audio-visual passenger information system, on-board hotspot Wi-Fi for entertainment purpose and comfortable seating.*



Rake composition:

16 coach formation consist of four (4) Basic units (2 end basic units & 2 middle basic units).

State of the Art passenger amenity fittings:

			
<i>Dust shield Gangway</i>	<i>Movable Chair in Executive Class</i>	<i>Fully automatic doors and AC coaches</i>	<i>Passenger Information System</i>

6. Provision of Automatic Seat Cover on Western style lavatory seat

Western style Commode Seats are provided in the lavatory of the coach, in most of the cases on board passenger do not lift up the seat cover before urinating, which makes it unhygienic for other people to use it.

Mumbai Division, instrumental in devising the novel concept, a first of its kind, 'automatic seat cover up' to overcome this issue. An automatic seat cover lift up arrangement has been made which acts mechanically (Non Electric).

The arrangement is done using a spring for auto lift up of commode seat cover. This spring action keeps the Seat Cover always in its 'Lift Up Position'. When a passenger wants to use the toilet, he can easily push down when it has to be used for the toilet purpose only.

It will remain in the down position, as long as a person is using it, otherwise it will lift up automatically to its upward and normal position back.



7. Development of Training coach for audio-visual training of staff

LTT coaching depot developed one overage ICF coach in to Training coach named "एकलव्य". Cut section models of various LHB coach components has been displayed inside the coach. Instructions are displayed along with QR code of the components. One can scan QR code and get detailed instructions and write up about the component. The coach has LCD monitor for audio visual training of staff. The coach was inaugurated on 02/03/2023 by GM/CR during GM's annual inspection of Mumbai Division.



8) Overage Narrow gauge coach converted to state of the art Rajbhasha library:

An overage narrow gauge coach has been converted into Rajbhasha library in a bid to promote Rajbhasha awareness. The coach is based at LTT Coaching depot.



9) Publishing of Technical Booklet on Vande Bharat Express:

To assimilate knowledge amongst the Engineers & Technician, technical booklet is prepared & published for internal circulation. Same was released by GM /CR during annual inspection at ROHA.

