

**GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS**

**LOK SABHA
UNSTARRED QUESTION NO. 5188
TO BE ANSWERED ON 02.04.2025**

**UPGRADATION OF TRACK INFRASTRUCTURE FOR VANDE
BHARAT TRAIN**

5188. SHRI ADITYA YADAV:

Will the Minister of RAILWAYS be pleased to state:

whether the Vande Bharat train sets have been designed to transform the rail travel experience for passengers with world-class amenities coupled with fast connectivity, if so, the details thereof and if not, the reasons therefor?

ANSWER

**MINISTER OF RAILWAYS, INFORMATION & BROADCASTING AND
ELECTRONICS & INFORMATION TECHNOLOGY**

(SHRI ASHWINI VAISHNAW)

Design and Development of Coaches including Vande Bharat to enhance the safety and passenger experience is continuous process over Indian Railways.

With a view to provide better travel experience to the passengers, Indian Railways has introduced indigenously

designed and manufactured Vande Bharat trains with modern coaches, advanced safety features and passenger amenities.

These new Vande Bharat Trains have following features:

- I. Fitted with KAVACH.**
- II. Higher acceleration with design/operating speed of 180/160 KMPH.**
- III. Air conditioning units with indigenously developed UV-C lamp based disinfection system.**
- IV. Jerk Free Semi-Permanent couplers.**
- V. Centrally controlled Automatic Plug Doors and Fully Sealed wider gangways.**
- VI. Better Ride Comfort.**
- VII. CCTVs in all Coaches.**
- VIII. Emergency Alarm Push buttons and Talk Back Units on all Coaches.**
- IX. Improved fire safety – Aerosol based fire detection and suppression system in electrical cabinets and lavatories.**
- X. For Divyangjan passengers special lavatory in the driving coaches on each end.**
- XI. Driver-Guard communication with voice recording facility & Crash hardened memory.**
- XII. Coach condition monitoring System (CCMS) display with remote monitoring.**

Further, Indian Railways has planned Vande Bharat Sleeper Trains for long and medium journey.

The first 16-Car prototype rake has been manufactured. Total 10 Rakes in 16-Car composition and 50 rakes in 24-Car configuration have been provisioned for manufacture at ICF Chennai.

Broad technological advancements and safety features provided in Vande Bharat Sleeper Trains are as below:

- I. Fitted with KAVACH.**
- II. Crashworthy and Jerk-Free Semi permanent couplers and Anti Climbers.**
- III. Crashworthy Design of Carbody complying with EN standards.**
- IV. EN-45545 HL3 fire safety standards.**
- V. Fire barrier doors at the end of each coach.**
- VI. Regenerative braking system for energy efficiency.**
- VII. Air conditioning units provided with indigenously developed UV-C lamp based disinfection system.**
- VIII. Emergency talk-back unit for communication between Passenger and Train Manager/Loco Pilot in case of emergency.**
- IX. Accommodation and accessible toilets for Passengers with Restricted Mobility (PRM) in the driving coaches on each end.**
- X. Centrally controlled Automatic Plug Doors and Fully Sealed wider gangways.**
- XI. Ergonomically designed ladder for ease of climbing on to upper berths.**
