

Chenab Railway Bridge in J&K nears completion with golden joint

After the steel arch of the world's highest railway bridge was completed last year, the overarch deck is nearing completion this month.



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India will witness another milestone at the world's highest railway bridge in [Jammu](#) and Kashmir this month, when the overarch deck of the Chenab Railway Bridge is completed with a golden joint.

The Chenab bridge will become the world's highest single-arch railway bridge after completion.

Around 30,350 MT of steel has been used to construct the 1,315m-long Chenab Railway Bridge.

At least 10,620 MT of steel has been consumed in the construction of the gigantic arch, while 14,504 MT of steel has gone into the construction of the bridge deck.

The bridge, on the upstream of Salal Dam, is situated near Kauri village in the Reasi district of Jammu and Kashmir. Once completed, the Chenab Railway Bridge will be 35m higher than the Eiffel tower.

At the bridge, 93 deck segments, each weighing about 85T, have simultaneously been launched from both ends of the valley over the mighty steel arch and five are in progress. Both ends will finally meet to complete the bridge overarch deck. The segments will be joined with the help of High Strength Friction Grip (HSFG) bolts to mark the golden joint. This will complete the bridge over the Chenab river valley and herald a new chapter in the history of Jammu and Kashmir.

“The completion of the overarch deck, 359m above the Chenab riverbed, will be an extraordinary achievement. I have highest respect for every engineer and worker who has contributed to this engineering achievement. This golden joint will usher in a golden moment in the history of the Indian Railways, and will become a golden chapter in the history of Jammu and Kashmir. The construction engineering was completely done by Indian engineers, which makes the Chenab Railway Bridge a symbol of Atmanirbhar Bharat,” said Giridhar Rajagopalan, Deputy Managing Director of Afcons.

The bridge has been constructed by Mumbai-based infrastructure major Afcons. Giridhar praised the Northern Railways (NR) and Konkan Railway Corporation Limited (KRCL) for their role in finalising the design of the Chenab bridge. Reflecting on their involvement, he said, “We received tremendous support for technical issues, approvals for drawings, method statements, and most importantly, both NR and KRCL played important roles in generating local employment. KRCL constructed all the access roads to the project site. These roads have provided connectivity to far-flung villages in the region.”

“The Northern Railways allowed us to use the Phased Array Ultrasonic Testing Machine for inspection of welds. This was done for the first time in India,” he added.

The fabrication was carried out in sophisticated workshops set up at both ends of the bridge. The heavy and bulky segments were transported to the launching pad with the help of SPMT, a specialised modular trailer, Giridhar explained.

“Considering the treacherous hilly terrain, a temporary launching platform with segment lifting capacity of 120 MT & for a height of about 39m was designed. We developed and implemented several innovative methods to overcome the challenges of the hilly terrain for successfully executing our launching activities,” Giridhar added.

For the first time in India, a fully equipped NABL laboratory was set up to ensure that quality was being monitored at every stage of the project. “The Northern Railways supported us in setting up the NABL lab at site for conducting weld sample tests. This saved a lot of time,” he said.

With KRCL’s support, Afcons could carry out a mock-up of all main bridge components before executing the original work, which gave confidence to the engineers. This was critical in ensuring quality and safety of staff and workers.

Besides completing the world’s highest single-arch railway bridge in Jammu and Kashmir, Afcons also holds the distinction of refurbishing Bihar’s iconic Mahatma Gandhi Setu and converting it into India’s longest steel bridge.