## HOW ABOUT 100 CSTI-TRAINED YOUNGSTERS ARE MAKING A DIFFERENCE AT THE MUMBAI METRO PROJECT

t is another day of action at the specially built manufacturing facility of the Railways SBG for the Mumbai Metro project to meet their requirement for custommade sleepers. Surprisingly, most of the 'workmen' are youngsters, energetically performing their various duties. "They are about 100 youngsters who have come after training from CSTI, Ahmedabad and they are doing very well," says a satisfied looking Senior DGM (ELEC), Brij Mohan Sharma.

For Abhijeet Paul, one of the trainees from West Bengal, life has been on a smooth track ever since he arrived at the site in late December 2020. "The first three months were tough," he nods, "but that is to be expected. Once our supervisors showed us how to work, it has been much easier."









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> Abhijeet Paul CSTI Trainee

Abhijeet is into electrical maintenance and has learnt to operate the EOT crane. "It is nice working with other trainees because they listen when you tell them something and together, we make a good team," he smiles. Susanto Dhar, also from West Bengal, at Mumbai after a 2-year stint in Shillong at a B&T hospital project, shares the same opinion that with proper training, on-thejob orientation and hard work, the team is helping meet the site sleeper requirements.

Matters, however, were not so good to start with. As per the tender, all 2,12,000 sleepers were to be imported from Sonneville, Switzerland but with the outbreak of the pandemic that option was ruled out. "Why can't we instead manufacture these in India?" asked Rajeev Jyoti, Chief Executive, Railways SBG, which would also be for the first time in the country. "It was really a black box for us for we, the Railways team, had never attempted anything like this before," recalls Brij Mohan but undeterred, they went ahead trusting their ability and online help from Sonneville.

Land to put up the facility: The team's first two challenges were the

availability of about 15,000 sq m of land close to the metro alignment to put up a factory and about INR 15-20 Crores of CAPEX. Initially, the client showed them a plot in Bhiwandi, a distant suburb of Mumbai, but unsuitable as it would have drastically increased set-up and transportation costs. After their continuous search and the client's intervention, the team found about 13,500 sq m of space in Wadala, in the heart of the city, to set up the manufacturing facility.

Despite the challenges of the Mumbai monsoon the and pandemic, the team of Brij Mohan, Amit Shukla, Harmeet Sahni, others Shiv Gupta and soon realized that the factory had to be operational in 5 months to meet the project timelines. Further, the zero slump concrete they were using for precast sleepers had to be tested and made compatible with the imported booted sleeper casting machines. Working to



speed, the facility was up and running by November with the imported machines commissioned in December under the supervision of representatives from Sonneville. By early January 2021, the first batch of 4 sleepers were rolled out.

"The quality was very poor," moans Amit Shukla, Senior Manager, "and with a cycle time of 28 days to test a new design mix." It was evident that they had to change the batching plant, and a new, fully automated one was hired from Schwing Stetter in double quick time that had planetary mixing technology and precise control of moisture at the bin and mixing levels. The team was ready for a fresh attempt by April, after the precast sleepers passed the stringent pre-gualification tests as per European standards in the presence of experts from Sonneville and the client.

## Enter the trainees from CSTI, Ahmedabad

"Manpower was our next challenge," Brij Mohan points out. "The local manpower was not up to our standard, so we tried to mix and match the workforce, with some external and some internally from our CSTIs." Starting with an initial batch of 10, the number of CSTI trainees rose steadily as the team discovered their value. Soon there were nearly 100 CSTI trainees like Abhijeet and Susanto working at the facility, recruited largely from CSTI, Ahmedabad. "This was our first good break," smiles Brij Mohan, "because we found these boys skilled, enthusiastic, energetic and quick to learn. In 15-20 days, they were ready to run. What's more, they were willing to do almost everything: right from the most basic housekeeping and cleaning tasks to the more technical stuff like fabricating cages, running the highly sophisticated automated sleeper casting machines, maintaining the batching plants, running EOT cranes, managing the quality lab, managing the de-moulding bay and even transportation."

Sonneville had opined that it would be possible to do up to 400 sleepers a day and a monthly output of 10,000. Initially, the machine started producing 100 sleepers per shift. To up the numbers, a night shift was introduced despite having to overcome some serious local issues. Once the CSTI trainees learnt the ropes, the numbers started to grow.



In August, they made 10,000 sleepers of good quality, improved it to 12,000 in September and in October, the output touched 15,000 sleepers. "To prove a point, we did 800 sleepers in a day," laughs Brij Mohan, "though at an average we are now doing 650 a day. In fact, engineers from Sonneville who visited us in December feel that the quality of our sleepers is better than what they produce!" A good practice is better when shared with other projects and businesses. The model is therefore being used at the Delhi-Meerut RRTS project which is a more difficult task with the requirement being for floating precast slabs.

With all our CSTIs preparing more trainees raring to take on any challenge, this model certainly can be a runaway hit.