## First 10m of underground Metro III path almost ready

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IT'S getting done slowly and quietly, deep under the city, 24x7 with deft precision. Monitored by a team of officers, workers, and German engineers, about 10 metres of the path of Mumbai's first underground railway, Metro III, is almost ready since the first Tunnel Boring Machine S-1073 begun functioning at Naya Nagar, Dharavi from November 9. The neighbouring machine S-1074, which will bore a parallel line, is still getting ready and will start action in few days.

The TBM runs at a speed of 1 to 4 metres a day, and will take about 11 months to reach Dadar near Sena Bhavan, where it will be taken out. The same set of machines will then be brought back to Naya Nagar to start tunnelling on the other side towards Dharavi. There are set protocols and deadlines in place.

"This is the first time that a passenger underground metro is being built in Mumbai and we all are excited. But it is also a huge responsibility. Every factor has been considered and many challenges completed as the scale of preparatory work itself was huge. The important thing is we have been moving.



The TBM at Naya Nagar. PIC/SURESH KARKERA

inch by inch and getting there," a senior engineer said.

"The machine is on an initial drive and once it reaches about 110 metres, it will resume main drive, when all the controlling utilities will also be shifted down in the shaft. That's when the speed is expected to pick up and move ahead a bit faster. A small meter gauge track has been laid inside to move the machine inside and take out the debris wagons," he explained. Asked what is the biggest challenge that is being faced while the work is on, engineers said it is the soil and geological conditions. "We have begun the digging after full study of the

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strata and conditions, yet there could be unexpected turnouts at the last minute, which could decide the fate of the tun-

neling," he said. While there are 17 TBMs that will start tunneling activity across the city, it cannot be confirmed if this particular one will finish first as it has begun functioning first. "It all depends on the geological conditions, the length it covers and other typical peculiarities, but most likely this one is in the race to finish first. If all goes well, the entire tunnelling activity will be completed in two years," he said. Once the tunneling is complete, other parameters like cables and signalling will be installed and after that the tracks will be laid and rolling stock (trains) will start arriving.