Tunnelling under the Seabed

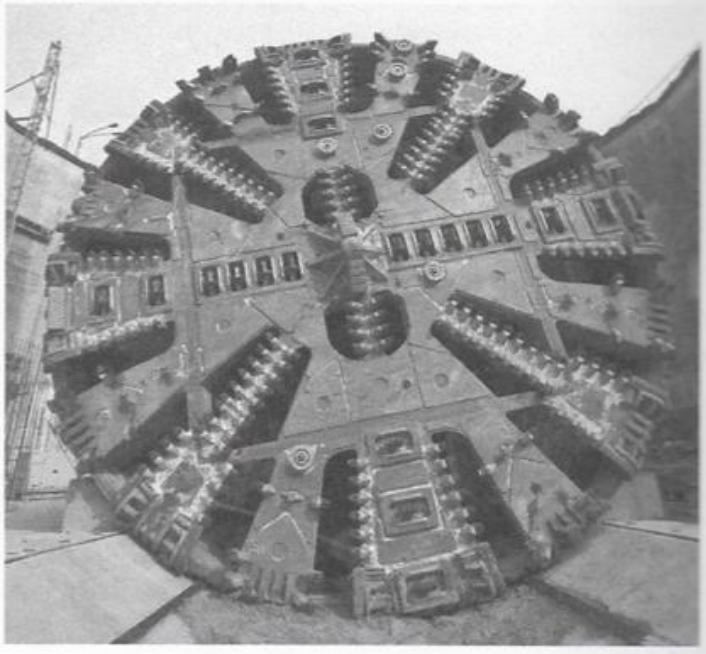
The United Kingdom (UK) and France are separated by the English Channel. Before 1994, the only way to cross the 34 kilometres between the two countries was by boat or plane. Now they are linked by trains speeding beneath the seabed: through the Channel Tunnel.

Digging began on the Channel Tunnel in December 1987. Three tunnels were dug: one was for trains going to France, one was for trains to the UK, and a service tunnel was built first for access to the other two. About 13,000 people worked on the building of the Channel Tunnel.

The tunnels were cut with eleven huge tunnel boring machines (TBMs), each as long as two football pitches. The cutting face of a TBM contains 100 revolving blades and 200 teeth. The tunnels were bored at an average of 50 metres below the seabed, which was made up of a chalky rock millions of years old. The TBMs cut through up to 76 metres of this rock a day.

After the tunnel was finished, there was a lot of chalky soil to get rid of. It was used to create Samphire Hoe, a nature reserve between Dover and Folkestone. It increased the size of the UK by about 36 hectares. This is about the same as a quarter of Regent's Park in London.

The Channel Tunnel opened on 6 May 1994. Trains transport people, cars and coaches from one country to the other. The trains travel at up to 160 kilometres per hour. The journey through the tunnel takes about 35 minutes.



a TBM cutting face