The Channel Tunnel



The Channel Tunnel, (French: le tunnel sous la Manche; often nicknamed the Chunnel in English) is a rail tunnel beneath the English Channel at the Straits of Dover, connecting Cheriton in Kent, England and Sangatte in northern France. A long-standing and hugely expensive project that saw several false starts, it was finally completed in 1994. It is the second longest rail tunnel in the world, surpassed only by the Seikan Tunnel in Japan. It is operated by Eurotunnel plc.

In 1957 the Channel Tunnel Study Group was formed. It reported in 1960 and recommended a railway tunnel of two main tunnels and a smaller service tunnel. The project was launched in 1973 but folded due to financial problems in 1975 after the construction of a 250 m test tunnel.

In 1984 the idea was relaunched with an Anglo-French government request for proposals to build a privately funded link. Of the four submissions received the one most closely resembling the 1973 plan was chosen and announced on January 20, 1986. The Fixed Link Treaty was signed by the two governments in Canterbury, Kent on February 12, 1986 and ratified in 1987.

The planned route of the tunnel took it from Calais to Folkestone (a route rather longer than the shortest possible crossing) and the tunnel was to follow a single chalk stratum (which meant the tunnel was deeper than the previous attempt). For much of its route, the tunnel is nearly 40 m under the seafloor, with the southern section being deeper than the northern.

Digging the tunnel took 15,000 workers over seven years, with tunnelling operations conducted simultaneously from both ends. The prime contractor for the construction was the Anglo-French TransManche Link, a consortium of 10 construction companies and 5 banks of the two countries. Engineers used large tunnel boring machines (TBMs), mobile excavation factories that combined drilling, material removal, and the process of shoring up the soft and permeable tunnel walls with a concrete liner. After the British and French TBMs had met near the middle, the French TBM was dismantled while the British one was diverted into the rock and abandoned. Almost 4 million cubic metres of chalk were excavated on the English side, much of which was dumped below Shakespeare Cliff near Folkestone to reclaim 90 acres (360,000 m²) of land from the sea.

The Channel Tunnel consists of three parallel tunnels: two primary rail tunnels, which carry trains north and south, and a smaller access tunnel. This access tunnel, which is served by narrow wheeled vehicles, is interconnected, by means of transverse passages, to the main tunnels at regular intervals. It allows maintenance workers access to the tunnel complex and provides a safe route for escape during emergencies.

When the two tunnels met 40 m beneath the English Channel seabed on December 1, 1990, in what was to become one of the "crossover halls" that allow diversion of trains from one main tunnel to the other, it became possible to walk on dry land from Britain to mainland Europe for the first time since the end of the last ice age, over 13,000 years ago. The British and French efforts, which had been guided by laser surveying methods, met with less than 2 cm of error.

The tunnel was officially opened by Queen Elizabeth II and French President François Mitterrand in a ceremony held in Calais on May 6, 1994.

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Questions about the text

1. The Channel Tunnel was completed in 1994.
   - ○ True.
   - ○ False.
   - ○ We don't know.

2. It took ten years to finish the tunnel.
   - ○ True.
   - ○ False.
   - ○ We don't know.

3. The tunnel runs 40m under the sea.
   - ○ True.
   - ○ False.
   - ○ We don't know.

4. There are three parallel tunnels inside the Chunnel.
   - ○ True.
   - ○ False.
   - ○ We don't know.

5. The tunnels from both ends met in 1990.
   - ○ True.
   - ○ False.
   - ○ We don't know.

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