

The Oresund Bridge



The Oresund Bridge is the longest combined road and rail bridge in Europe, connecting two major metropolitan areas: Copenhagen, the Danish capital; and the Swedish city of Malmo. The bridge, which was opened on 1 July 2000, has a total length of 7,845 metres, a width of 23.5 metres, and its longest span is 490 metres. It runs from the Swedish coast to the artificial island of Peberholm, which lies in the middle of the strait. The crossing of the strait is completed by a 4 kilometre underwater tunnel, called the Drogen Tunnel, from Peberholm to the Danish island of Amager.

The bridge was designed by Jorgen Nissen, Klaus Falbe Hansen, Niels Gimping and Georg Rotne. Its construction, which was undertaken as a joint venture by Hochtief, Skanska, Hojgaard &Scultz and Moberg & Thorsen, began in 1995 and was finished on 14 August 1999. The engineering design was undertaken by Ove Arup and partners, Setec, ISC, and Gimsing and Madsen. The structure has a mass of 82,000 tonnes, and supports two railway tracks beneath four road lanes in a horizontal girder extending the entire length of the bridge. On both approaches to the three cable-stayed bridge sections, the girder is supported every 140 metres by concrete piers. The two pairs of free standing cable supporting towers are 204 metres high, allowing shipping 57 metres of headroom under the central span. A girder and cable-stayed design was chosen to provide the specific rigidity necessary to carry heavy traffic. The bridge carries about 17,000 road vehicles daily.

The rail link is operated jointly by the Swedish SJ and Danish railways DSBFirst. A series of new dual-voltage trains was developed, linking Copenhagen with Malmo and Southern Sweden. Trains operate every twenty minutes, once an hour during the night, in both directions.

The Oresund Bridge was the setting for the 2011 Swedish/Danish TV crime drama *The Bridge*; it was used as a symbol for the connection between Sweden and the rest of Europe at the European Song Contest in 2013; and, it was the inspiration behind the 2014 song "Walk me the Bridge" by the Manic Street Preachers.