

Ting Kau Bridge

schlaich bergemann
und partner

Location	Hong Kong, China
Type of structure	multi-span cable-stayed bridge with twin composite decks
Owner	Highways Department Hong Kong
Completed	1998
Scope of our work	conceptual design, construction design, site supervision
Architect	schlaich bergemann und partner
Contractors	Ting Kau Contractors Joint Venture
Cooperation	Flint & Neill (checking); Alan G. Davenport Wind Engineering Group, Ontario; Binnie, Hong Kong (foundations)

Technical data	
Total length	1,177 m (3,862 ft)
Spans	127 + 448 + 475 + 127 m
Main tower height	201.55 m
Ting Kau tower height	173.30 m
Tsing Yi tower height	164.30 m
Bridge width	38 m
Deck surface	46,000 m ²
Lanes	2 x 4

The Ting Kau Bridge along with its approach bridges links the western New Territories as well as the mainland with the expressway Lantau Fixed Crossing, which connects the new Airport with Kowloon and Hong Kong. As one of the few realized multi-span cable-stayed bridges, the Ting Kau Bridge, with 1177 m of cable-supported deck, was at the time of its construction one of the worlds longest cable stayed bridges. A remarkable feature of this bridge structure are the two divided superstructures (composite superstructures consisting of a light-weight steel girder grillage and a pre-fabricated concrete deck slab), each 17.7 m wide. Single pylons are stabilized in the transverse direction by cables like masts of a sailboat; stabilization of the pylons between the two primary span widths via longitudinal cables between the pylon head and the crossing point of the superstructure with the neighboring pylons.

Photos: Roland Halbe (right, left bottom), Alan Cook (left top)

