



Stonecutters Bridge

Stonecutters Bridge spans across the 900m(approx.) wide Rambler Channel at the entrance to the Kwai Tsing Container Terminals, forming the centrepiece of the section of Route 8 between Tsing Yi and Cheung Sha Wan. This section of Route 8 is a 7.6km long, dual three-lane road that includes Stonecutters Bridge and its approach viaducts. Besides serving as a main route to Hong Kong International Airport, this section also provides direct trunk connections to the container terminals at Kwai Chung and Tsing Yi.

The bridge has a highly distinctive structural form that comprises a bridge deck of about 53m wide with steel twin-box connected by cross girders, supported by two monopole towers of height up to +298.0 mPD. The streamlined split deck enhances stability under high wind.

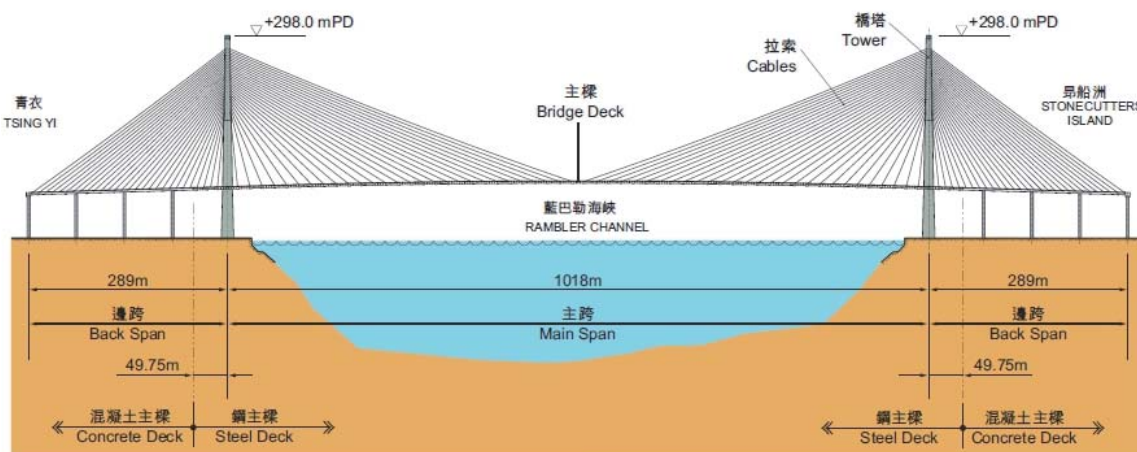
The towers are constructed in concrete up to a height of about +175 mPD, and the upper sections are in composite stainless steel-concrete. This is the first time to use high-grade duplex stainless steel skin as an integral structural part of the upper towers. This solution is chosen to enhance the structural stability and to reduce maintenance cost by eliminating the need for re-painting.

The raw materials of the bridge were sourced around the world. The stainless steel used in the upper section of the towers was imported from Sweden and fabricated into stainless steel skins in China (Zhongshan). The steel used in the deck was from Japan, Austria and Belgium and was fabricated into deck panels in Northern China (Shanhaiguan) and assembled into deck segments in Southern China (Dongguan). The deck segments were transported to site by barges and lifted into position.

The HK\$2.76 billion construction contract commenced in April 2004. The bridge was opened to traffic in December 2009 after about 68 months of construction.



Stonecutters Bridge is made up of a 1 018m main span and two 289m long back spans. At the time of its completion in 2009, it was one of the only two cable-stayed bridges with a span in excess of 1 000m in the world.



Overall Length	1 596 m
Main Span	1 018 m
Height of Towers	+298 mPD
Stay Cables	
Number of Stay Cable	224
Length of the Longest Stay Cable	540 m
Total Weight of Stay Cables	7 200 tonnes

Structural steel	
Steel Deck	33 500 tonnes
Anchor boxes in the towers	1 200 tonnes
Stainless Steel	1 100 tonnes
Concrete	136 000 m ³
Maximum vertical displacement at mid-span by	
Traffic load	1.8 m
Wind load	2.2 m