RCAHMS

Dalmore Mill and Milton Hone Works, Suspension Footbridge, East Ayrshire 2014

NS42SW 17



View from south looking towards Milton Hone Works, John R Hume, 1967 [SC589631, 2013, RCAHMS]

Background

This steel rope suspension footbridge bridge was built to link the two hone working sites at Milton and Dalmore Mill belonging to John C. Montgomerie of Dalmore. Built in 1903-4, it was designed by John Henderson and Co. of Aberdeen. (1)

RCAHMS carried out a building survey of this structure in 2014 as part of its Industrial Survey Programme.

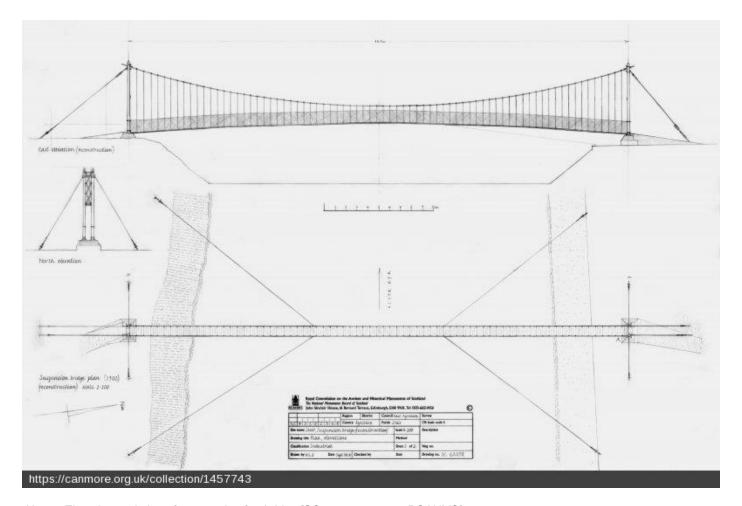
Description

This Steel Wire Suspension Bridge has a span of some 45.72m (150 feet) with a pathway between the handrails measuring 0.76m (2'6") in width. The bridge consists of four main steel wire cables 70mm ($2\frac{3}{4}$ ") in circumference and with anchor ropes of the same construction and size. The stay rods for the pillars and the wind stay rods for the deck are of steel wire rope 25mm ($\frac{7}{4}$ ") in circumference.

The vertical hanging rods are of 6.4 mm (¼") diameter steel wire and the four cast-iron pillars are each about 6.09 m (20 feet) in height with a mean diameter of c. 0.2 m (8") weighing about 508-609 kg (10/12cwts). There is protection wire on each side of the bridge consisting of steel wire about 3 mm (½") diameter with a 0.1 m - 0.12 m (4"/5") width mesh. The deck flooring, now in a parlous state, consisted originally of two layers of redwood boarding, the bottom layer being crossways and the top layer longitudinal. The cross boards were supported by means of 'U' -shaped bolts fitted at each end, on the two bottom main cables. (2)



Left: View of north pillars, anchor cables (right) with the mesh protection and the deck of the bridge visible on the left (DP161956) and detail of north pillars makers plate [DP161957, 2013, RCAHMS]



Above: Elevation and plan of suspension footbridge [SC1457743, 2014. RCAHMS]

References

- (1) For an example of a later Henderson bridge see Brae Doune suspension bridge, Sutherland
- (2) Dimensions from survey and from correspondence between John M Henderson and Co. and JC Montgomerie regarding the building of the bridge between July and November 1903.