

REFERENCE

TENSION ROD SYSTEM M52

Fuldatalbrücke Bergshausen

PROJECT DATA

Brief description

Tension rod system in a cross-bracing design incorporating cross sleeves

Details of the system elements

Tension rod systems -system size M52

12 diagonally arranged bracing fields

Tension rod system lengths determined by allowance

Average system length 7000 mm

Technical parameters

The tension rod systems were used as bracing systems in the vicinity of the pier axes to strengthen the bridge cross-section.

Country, Year

Germany, 2019

PROJECT DESCRIPTION

Revitalisation of the deteriorating steel construction to compensate for the severe static and constructional shortcomings. The aim of the refurbishment is to extend the useful life of the bridge structure until the planned new bridge was opened.

SOLUTION

The primary strengthening activities on the northern section of the superstructure were carried out using a post-tensioning system, a totally new construction which has been used for the first time worldwide. The key components of post-tensioning are stranded bundle cables which push the truss bridge fields upwards in a controlled manner, providing the necessary strengthening.

The stabilisation of the bridge cross section in the northern section of the bridge superstructure in the vicinity of the pier axes was performed using filigree tension rod systems as bracing systems (design variant with cross sleeves).

