



Bridge over the Alberche River

El Tiemblo, Avila, Spain / 1998

Structural type
Characteristics
Construction sequence
Owner
Client
Constructor
Scope

steel and concrete composite deck
main span 68 m / total length 248 m
detailed design and technical support to the contractor
ministerio de fomento
Tapusa
ute construcciones sobrino y tapusa
detailed design and construction support



It is a viaduct with a composite two-beam deck of 38,00 m, 56,00 m, 66,00 m, 52,00 m and 34,00 m spans. Its reinforced concrete piers are very slender and of variable height from 22,00 m to 45,00 m. Their exterior box section is 4,00 m x 1,80 m² and their walls are 0,30 m thick. Every pier has a different composite head owing to the shape of the deck. In order to control longitudinal slenderness, the deck is fixed to the abutments by means of a special system that allows movements caused by temperature and shrinkage and, at the same time, fixes the deck in case of quick movements due to violent braking.

Its piers have been built with sliding framework. Its steel pier heads were placed with a crane and cast with a concrete pump. The beams of the steel structure were also placed with a crane. The concrete of the upper slab was cast over prefabricated slabs.



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