

Title (en)

composite bridge structure consisting of steel girders carrying a deck made of steel case profiles and concrete

Title (de)

Brückentragwerk in Verbundbauweise bestehend aus Stahlträgern und einer von diesen getragenen Fahrbahnplatte aus Stahlkastenprofilen und Beton

Title (fr)

pont à structure composite comprenant des poutres en acier et un tablier constitué de profile en caisson en acier et de béton

Publication

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Application

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Priority

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Abstract (en)

[origin: WO9410385A1] This invention is a new method to achieve composite action between girders (3) and a concrete slab (1), as well as within the slab itself. The load transmission within the slab (1) is improved by the invention in the following way. The inferior capacity of the concrete to carry transverse forces is repaired by the composite load carrying capacity of the profile's edge flanges (9), upwards inclined top flanges (10) and upwards extended top parts (11). Due to this fact the slab may be made thinner than usual. Shear forces between steel (2) and concrete (17) are effectively transmitted by mechanical contact between the vertical edges (16) of the cuts (12) and the reinforcing bars (13). Due to the fact that the bottom flange of the case profile (8) is capable of resisting the entire tensile force in the cross section, maximum moment carrying capacity is obtained, whereupon main reinforcement may be omitted.

IPC 1-7

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