



BRIDGE AND STRUCTURAL DESIGN

MOTORWAY - BRIDGE OVER THE EASTERN MAIN CHANNEL

Hungary

**Client:**

Nemzeti Autópálya Rt. (National Motorways Ltd)

Technical data:

Total length of the bridge: 150 m
Spans: 44,0 m + 60,0 m + 44,0 m

Width of the bridge: 1,53 + 12,13 + 0,53 + 0,40 m
gap + 0,54 + 12,13 + 1,53 = 29,20 m

Intersection angle: (between the bridge axis and the Keleti Főcsatorna - Eastern Main Channel) 70 °

Design period: 2003 - 2006

Execution period: 2005 - 2006

Consultancy services provided:

Design for Approval
Tender design
Execution designs
Technical supervision
As-built designs, Instructions for the Operator

Bridge structure:

Two parallel girder bridges with wedged steel supports acting with the rc plate.

Innovative characteristics of the bridge:

- The innovative structure of the rc deck slab and the method of its dimensioning allowed to omit completely the relocation/moving of the supports, time- and work consuming activities.
- For the in-site assembling procedure of the steel structure temporary supports were used, replaceable by crane in 1 piece and not needing separate foundation work (REM 500 type temporary supports produced in GDR)
These yokes type were used also at the construction of other bridges.
- The steel pipe yokes used also for the concreting of the deck slab were constructed on the temporary backfills along the two riversides.



Mounting of the form panels onto the main girders web, in front view the yokes used also for concreting in May 2006