TECHNOLOGY OFFER

BALANCED LIFT BRIDGE CONSTRUCTION

TECHNOLOGY

This new bridge construction method consists in building the bridge girders in a vertical position and in rotating the bridge girders into the final horizontal position. The span of the bridge girders is reduced by the compression struts, which enables considerable savings in construction materials.

APPLICATIONS

The proposed method will be especially advantageous for bridges with high piers and span length between 50 m and 250 m. The usage of temporary piers (see Fig. 1) enables the expedient application of the balanced lift method for bridges with piers of modest height. The method is also applicable for temporary bridges and lift bridges.

BENEFITS

- Savings in construction materials (20 to 30 % in comparison to balanced cantilever method)
- Fast vertical assembly of bridge girders and compression struts
- Concentration of construction at the pier locations
- Established technologies are available for the lifting or lowering process and the hinges.

Fig. 1 Construction of the prototype

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DESIGN FOR THREE SPAN BRIDGE

DESIGN FOR VALLEY BRIDGE