



Periodical detailed inspections

Bridges over Vitry-le-François and Bourg-et-Comin canals



Client:

Voies Navigables de France

Project manager:

Voies Navigables de France, Arrondissement Champagne

Contractors:

DIADES

Years:

Studies: 2011
Works: 2011

Principle features:

Vitry le François, stone arch canal bridge reinforced with sprayed concrete.
Spans: 5
Length: 57 m

Bourg et Comin, metal canal bridge on stone pillars.
Spans: 3
Length: 65 m

Background

The *Voies Navigables de France* (Navigable Waterways of France) own two canal bridges in the Champagne *arrondissement*:

- The first is on the river "Saulx" in Vitry-le-François (Department 51). It has 5 arches that support a metal liner containing the navigation canal. The widening of the bridge was carried out and spray concrete was applied to the two tympana and the inner curves of the arches of the existing structure,
- The second is on the river "Aisne" in Bourg-et-Comin (Department 02). It has a metal frame (liner and towpath bridge) supported by two abutments and two stone pillars (the pillar on the right bank is covered in sprayed concrete).



DIADES' task

The periodic detailed inspections of these two structures fall within the remit of the December 2010 Technical Guidance for the supervision and maintenance of engineering structures. These inspections entailed the use of specific means for:

- the pillars,
- the abutments,
- the accessible upper and lower liners,
- the foundations.

These inspections revealed the specific maintenance issues that would need to be addressed in order to ensure the durability of the two structures.

In the case of the canal bridge of Vitry-le-François, the inspection also served as an initial detailed inspection as, since the restoration works (of an unknown date), no assessment of condition has been carried out.

Specific features of the visits

Visits to the different parts of the structures displaying particular architectural traits and not easily accessible were carried out using very specific and customised methods:

- Inner curve of the arches: inflatable canoe,
- Pillars and metal frames: rope access,
- Inner surface of liners and pillar foundations: underwater works.

diadès

Immeuble le Crystallin
CS 20087
191/193 cours Lafayette
69458 LYON Cedex 06
Tel: +33(0)4.27.85.49.80
Fax: +33(0)4.27.85.49.81
Mail: diades.lyon@diades.fr
www.diades.fr