Amsteg section 252, Switzerland

Mobile Transloading Crane for Track Installation and Footing Elements

About the Project
Safety and quality are of the highest priority in AlpTransit, the construction project of the century. Hi-tech installations, best possible mechanization, and quality control systems that are implemented rigorously guarantee the required quality with highest productive capability.

Rowa’s Order
On May 13, 2008, Rowa received from the consortium Gotthard Nord (AGN), Erstfeld, the order to produce, supply and assemble a mobile transloading crane. This installation was completed with the latest technical know-how.

Project Data
- Country: Switzerland
- Builder: AlpTransit Gotthard AG, Luzern
- Building Contractor: AGN, Strabag AG, Erstfeld
- Forwarding length: 2 x 11’350 m
- Outbreak diameter: 9.5 m

Complete installation in operation
Amsteg section 252, Switzerland

The Concept
The cable tube blocks are industrially manufactured as 10m elements in the element factory. They are transported by train directly to the construction site, and from there with the construction train to the installation location.

The elements are then rapidly, safely and true to size joined with the transloading device, directly from the transport car. Finally, backfilling of the remaining hollow areas is carried out.

Advantages:
• No remnant concrete
• No lining work
• High measured precision of the cable tube blocks

Scope of delivery
Transloading Crane (multi-functional)
The transloading crane is used for placing the footing elements as well as for the construction and removal of the construction tracks.

It is a solid steel construction with 4 longitudinal traction drives and 2 crane beams, each with 2 traction drive chain hoists. Its carrying capacity amounts to between 3 and 5 tons each.
Furthermore, the portal car is equipped with steps and a working deck on which the aggregates are mounted. Maintenance and operation works are carried out by ascending along the side of the footing elements, outside of the clearance and the work area of the crane trains.

Technical Data Transloading Crane

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>8 m</td>
</tr>
<tr>
<td>Weight approx.</td>
<td>12 to</td>
</tr>
<tr>
<td>Length crane beam</td>
<td>2 x 6.2 m</td>
</tr>
<tr>
<td>Width upper deck</td>
<td>4 m</td>
</tr>
<tr>
<td>Number of chain hoists with</td>
<td>4 pcs.</td>
</tr>
<tr>
<td>traction drive</td>
<td></td>
</tr>
<tr>
<td>Carrying capacity per chain hoist</td>
<td>3 to max. 5 to</td>
</tr>
<tr>
<td>Total carrying capacity</td>
<td>12 to</td>
</tr>
</tbody>
</table>

Conclusion
With this installation, the required performance has been achieved from the start of the operation.

Accuracy and performance are increased versus the in situ concrete. A high productivity can be reached through industrialized processes.