Cochin Crane, India

Client: Cochin Shipyard Limited

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CIVIL 51

Fagioli PSC erected the new Goliath crane at the Cochin Shipyard in India. The proposed erection method was developed in conjunction with the crane designer, Konecranes of Finland. The chosen method and erection sequence was as follows:

The fixed leg was fabricated complete with the end of the main girder and the service crane. This was lifted using two of Fagioli PSC's Towerlift masts which where inclined and fitted with L300 strand jacks mounted on hammerhead beams. After lifting the leg was secured to the bogey units and stabilised using Fagioli PSC L50 Strand Jack guy wires. The lift weight of the fixed leg assembly was 290 tonnes. After lifting the leg was pulled along the crane rail until it was located at the end of the main girder.

The hinged leg was lifted and stabilised using an identical method to the hinged leg. The weight of this leg was 151 tonnes. This leg was not moved along the rails until after the main girder was lifted to full height.

The 95m span main girder was lifted 57m as a single 1,200te unit complete with the upper and lower hoisting trolleys. The lift arrangement employed cantilever beams mounted directly on the fixed leg and another set of cantilever beams on the reconfigured Fagioli PSC Towerlift system at the hinged leg end. The lifting system at each end comprised of two Fagioli PSC L300 Strand Jacks. During the lifting and weldout phases the main girder was guyed using Fagioli PSC L180 Strand Jacks. After lifting of the main girder the hinged leg was moved underneath the end of the girder.

Above: Crane beam almost fully erected. **Below left:** Close up of fixed leg

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