

Erection Of Vulkan Kocks Gantry Crane, Kvaerner Shipyard, Rostock.

Client: IHD GmbH



www.fagiolipsc.com

CIVIL 17



During the construction of this 900 tonnes capacity gantry crane, Fagioli PSC Ltd. erected the 2,600 tonnes weight, 180 metre span crosshead beam.

Although Fagioli PSC have developed schemes to erect gantry cranes, pier legs and shear legs of many sizes, incorporating two, three and four tower arrangements of the Fagioli PSC Towerlift system, this beam was erected without towers and only a Fagioli PSC strand jacking system. This very economical solution is particularly relevant where good local craneage is available to build the legs and help to rig and de-rig the jacking system.

Fagioli PSC designed, supplied and operated the jacking system for the main beam lift and also the complex guying system needed for stability of the two legs during their construction and the lift of the beam. As a side note, if the legs are to be built by crane, the guying system can be incorporated in to the construction methodology. If the pier leg in particular is to be built in sections, each section can be individually guyed as it is placed, with the final guying positions at the top of the last section.



The strand jack lift system was based around eight lifting points, with jacks placed at the top of the legs and mounted on Fagioli PSC cantilever beams, with each lift point incorporating twin Fagioli PSC L600 jacks. On the pier leg side the cantilever beams were simply mounted because of ample space for tie down, however on the smaller shear leg side it was necessary to incorporate a tie-back frame with the design to which the cantilever beams were tied down, and which itself was subsequently tied back to the base of the leg.

Right and above right: view from and of the shear leg jacking position. Each pair of jacks is powered and synchronised by a PSC L2/70D Powerpack, placed inboard of the cantilever beams.

