Worldwide Applications

HEAVY LIFTING

PROJECT CALLAND TUNNEL

- The Calland Tunnel is a part of the project “The second Maasvlakte” whose purpose is to enlarge the Rotterdam harbour.
- The Calland Tunnel is a sink tunnel. The lowest level is at 27 m under sea level.
- There are 2 kinds of concrete elements: the on-shore ones and the tunnel elements (the sink ones).
- The sink concrete elements are produced outside, in a dry dock on the offshore repair yard of Verolme Botlek in Rotterdam. They are 115 m long and 35 m wide. As they are so heavy and must be sink under water, it is more convenient to produce them in the yard and to float them to their final location.
- There are 6 concrete elements, that after the construction will have to be floated and pulled by tug-boats to their final location.
- Our Dutch Distributor, the company WITRANS designed together with our LARZEP Engineers the Hydraulic System to make possible this project and meet the customers needs and specifications.

LARZEP HYDRAULIC

Worldwide Applications
HEAVY LIFTING
PROJECT CALLAND TUNNEL

- LARZEP & WITRANS got this big contract facing a very strong competition from ENERPAC, HOLMATRO and other local manufacturers.
- We produce and supplied 100 cylinders 100 Tn capacity and fully made of Aluminium.
- There are 36 cylinders working in the “on-shore” concrete construction and another 36 units working in the dry dock for the sink elements. The rest are for other different uses and for spares.
- The cylinders are used to support the metallic frame, the movable casket.

LARZEP HYDRAULIC

Worldwide Applications
HEAVY LIFTING
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- WITRANS & LARZEP had to handle the following problems: Low budget of the customer, very low weight required for each jack, simple to operate system and the need of mechanical load holding.
- We upgraded the design of our standard lock-nut cylinders by including an stop ring and an spring for the retraction of the piston.
- Eventhough the use of the spring, WITRANS had to offer to the customer an electric pump provided with a vacuum system to improve the retraction of the piston, what was an excellent technical solution to meet the customer needs.

LARZEP HYDRAULIC

Worldwide Applications
HEAVY LIFTING
PROJECT CALLAND TUNNEL

- Country: THE NETHERLANDS.
- Application: Heavy Lifting.
- Products Supplied: 100 aluminium cylinders single acting spring return with lock nut, stop ring and tilting saddle. Capacity 107 Tn and 150 mm stroke. Total weight of the cylinder only 39,4 Kgr.
- Reference STMA/W10715.
- Our biggest order of Aluminium Cylinders.

LARZEP HYDRAULIC

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