

# NEWS SPLASH

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photo: www.evertonfc.com

This is an impression of the newly to be built stadium of the British football club Everton. It will be built on the site of the historic Bramley-Moore Dock. Van Heck is helping ensure that football matches can take place here in a few years' time. Read the article at the bottom of this page.

## HISTORIC DOCK TO MAKE ROOM FOR FOOTBALL



### MUCH EXPERIENCE WITH RENOVATING PUMPING STATIONS

Contractors and Water Authorities know where to find Van Heck when it comes to renovating pumping stations. This has enabled us to acquire a great deal of extremely useful experience. Every project has its own specific challenge, however. This was also true for the renovation of the monumental Halfweg pumping station near the village of Giethoorn in the Province of Overijssel in the Netherlands.

In accordance with Van Heck's calculations, two diesel-driven HK500s were able to take over the operation of this pumping station dating from 1937 for six months. The soil at the site proved to be fairly weak and

it was feared that the red pumps might sink into the ground. Through means of ingenious calculations and investigative work it proved possible to safely install the installation after all.

### A SMART TRICK AT THE HISTORIC AFSLUITDIJK

The construction of the Afsluitdijk was a heroic effort, dating back almost 100 years. The current work on reinforcing the dyke is actually even more challenging. The latest techniques are being used to make the dyke future-proof. Van Heck has been asked to make a contribution to this effort.

Together with its client, Van Oord, an efficient way of removing sludge from the bottom has been developed. This is necessary to make room for the concrete structures that will be used to widen the dyke. Jeroen van Heck explains: "We are using a technique

similar to Water Injection Dredging (WID) to create a cloud of sludge within the water. The tidal current then transports the sludge out to sea. A dead-simple trick to complete a historic job."

## WORLD RECORD: FLOW RATE OF 11,000 M<sup>3</sup>/HOUR



This is not the first time that NewsSplash writes about world records; this time it is a fact: the most powerful and largest Van Heck diesel pump has set yet another world record. The HK800 recorded a flow rate of almost 11,000 m<sup>3</sup>/hour! Today there are four of these massive pumps in our rental fleet ready for use. In fact, generally they are at work throughout the world where they are used in various ways, such as jetting. The brand-new pump has already attracted interest from French Guyana.

Yet another world record: Windpark Friesland is the largest windfarm on an inland lake. Van Oord has used the jetting technique to lay 89 cables covering a total distance of 92 kilometres on the bottom of IJsselmeer using Van Heck pumps. The jetting technique involves the use of pumps to generate a powerful waterjet that creates a trench at the bottom of a body of water. An injector subsequently lays the cable in this trench.

### RELIABILITY IS A MUST

The New Waterway near Rotterdam is the Suez Canal of the Netherlands. Nothing is allowed to go wrong here; otherwise, you would soon have a traffic jam of containerships and billions in damages. Van Oord – with its head office just a stone's throw from the Nieuwe Maas; a distributary of the



Rhine River – was contracted by TenneT – an electricity transmission system operator in the Netherlands – to pull a cable across the bottom of this busy shipping route. The cable connects the offshore Hollandse Kust windfarm with a high voltage substation. The work had to be carried out at night during a period of no more than eight hours to avoid creating shipping traffic jams. The DPPG800s and DPPG700s are split case pumps that enabled Van Oord to

quickly pull a cable five metres deep into the New Waterway's bottom without any problems. Jeroen van Heck: "We have laid such cables as deep down as eight metres in the past; that takes longer, but the principle remains the same. In part due to our long-term partnership with this client and the experience we have acquired over time, we were fully confident in our ability to get this job done."



## VAN HECK HELPS FOOTBALL CLUB EVERTON

The biggest football fans on Van Heck's team wanted to come along for this project. Because the project involves the construction of the new Everton stadium. The People's Club in Liverpool is exchanging the time-honoured Goodison Park for the newly to be built Bramley-Moore Dock Stadium.

As the name suggests, this is an old dock dating from Victorian times, which is to make room for modern football. That this was considered more important is evident from the fact that the city of Liverpool is giving up its spot on the UNESCO World Heritage List. The decision is final. Under contract

to Boskalis Westminster, Van Heck will pump out the return water while the dock is being filled with sand. As always, Van Heck will carry out the work to perfection. With a great deal of dedication by Engineer Daan, who is sure to attend an Everton match during his time there.

**VAN HECK**

MOVING WATER  
any way you want it

## A REPORT FROM SERVICE ENGINEER HILKO

A personal story by Hilko Diever, a dedicated Van Heck Service Engineer.

“Every job is special in its own right; some more than others. Such as this one in Liverpool where a lock had to be pumped out. The exciting thing for me was that the brand-new control unit was coming along; I have put my heart and soul into its design.”

“The adventure already began back home where I had to prepare an action plan on the basis of drawings made in the nineteen fifties. Of course, I also had to be tested for Covid because we were in the middle of the corona pandemic. With a negative test result in my pocket I

was permitted to travel to Great Britain. At work there I was in a bubble and the only thing I did not do there was sleep.”

“We had calculated that we needed two electrically driven AFP-600 pumps to be able to do the job. But after two hours of continuous pumping, the water level had barely subsided! It turned out that the leaks in the old doors were far bigger than anticipated. A solution was developed together with the client Ravestein and two additional lock doors were installed in front of the old ones. After that everything went according to

plan: after 16 hours pumping non-stop, the bottom was in sight. One pump was kept operating to keep out the leaking water.”

“Of course, we extensively tested the PLC control unit back home, but I must say that to see our designs operate as well as they did in actual practice filled me with pride. Pride that I was barely able to share with anyone on my return, because I first had to stay in quarantine for ten days. The ten longest days of my life, because I would much rather be at work!”



*Hilko Diever,  
Van Heck Service  
Engineer:  
“I am proud of  
this control unit;  
I have put my  
heart and soul  
into it.”*

Hilko Diever

## COMPUTERISED CONTROLS – READY FOR THE FUTURE

Van Heck has developed a new generation of pump set computerised control containers. The PLC computerised control containers can control electric, as well as diesel pumps. Advanced computers ensure that pumps never operate one stroke too many, which means that the systems operate as sparingly as possible and therefore

environmentally friendly. The first test in Liverpool was completed without a hitch.

Jeroen van Heck is enthusiastic: “Everything imaginable is possible with our new generation of computerised control containers. You can seamlessly regulate RPMs, the installation responds to water pressure and water levels,

consumption can be constrained, primary-secondary settings... – everything can be adjusted. Furthermore, this can be done from a laptop at any conceivable workplace using 4G! My colleagues have delivered a modern technological masterpiece.”

### ELECTRIC PUMP SET TO GERMANY

Pumping tonnes of water at a minimum flow rate of 2,800 m<sup>3</sup>/hour through a 7.5-kilometre pipeline required a brilliant piece of engineering. All the more so because two thirds of this pipeline runs through a nature reserve where sound is taboo. After some ingenious calculations and drawings by Van Heck’s people it was decided to use electric pumps with frequency convertors and diesel generators. A useful piece of information was that due to subsidies, generator diesel fuel is cheaper than pump diesel fuel in Germany. This knowledge enabled us to significantly save on costs.

*A few figures: 7.5 km pipeline, flow rate of 2,800 m<sup>3</sup>/hour, 10 hours per day, 5 days per week, 13 months long, 3 electric pumps (EPP200-PHK500)*



## INTERNATIONAL WORK: BELGIUM



You cannot just walk onto the premises of the world’s largest steel producer ArcelorMittal in Ghent. Van Heck’s engineers first had to complete an elaborate course before they were permitted to enter the premises. This has paid off, because on multiple occasions the red pumps proved to be a solution to problems there. Van Heck’s telephone number in Noordwolde is at the top of the plant manager’s list in Belgium.

Also in Belgium: seepage was a vexing problem in a Steengoed Projecten gravel pit: the water was rising too fast. Work had to continue and the red Van Heck pumps were swiftly dispatched. Within 24 hours a brand-new HK400 was operational at the site. This diesel powered silenced pumpunit operates in an environmentally friendly way by making use of AdBlue.

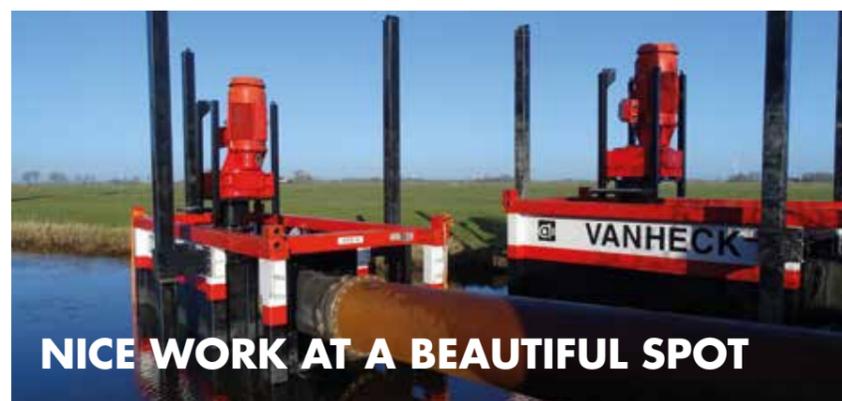
## ‘SAYING NO’ IS NOT PART OF VAN HECK’S VOCABULARY

“We need two Ø 1200 siphon systems.” This was the request we received from the city of Oberhausen in Germany. Van Heck’s largest siphon system was a siphon Ø 1000. But it is not in Van Heck’s nature to just say ‘no’. After some calculations, it proved to be possible to do the job with a siphon Ø 1000 and a siphon Ø 1200. So Van Heck simply built the latter, partly by making use of excellent, local suppliers. The siphon system was operational in a few weeks. The fact that the work was suddenly deferred a few months did not matter. Jeroen van Heck drily observes: “Insofar as I am able to tell, we now have the largest siphon system in the Netherlands. Always useful.” Accomplishment: over

23,000 m<sup>3</sup> water per hour bridges a 1.2-metre height difference at this location to make room for the construction of a rainwater retention basin.

### DE ROMEIN GROUP

In the Meerstad district of the city of Groningen, the choice was to go for green, inexpensive, quiet and simple: a siphon system with three siphons bridges a 200-metre distance to temporarily reroute the Borgsloot waterway. In an excellent collaborative arrangement with De Romein Group and the Water Authority, the siphon system continuously relocated the water for 14 weeks at over 7,000 m<sup>3</sup> per hour, without any problems.



## NICE WORK AT A BEAUTIFUL SPOT

For residents of the Province of Friesland and the Netherlands in general this is a famous spot: the tiled bridge. The names of former participants in the legendary eleven-cities long-distance skating competition that passes below this bridge are proudly inscribed on more than seven thousand tiles here. Right next to this monument is a pumping station that had to be renovated. Under contract to Schot Infra, Van

Heck installed two electric pumps that temporarily took over the operation of the pumping station. The deployment of the advanced Van Heck Connect control unit meant that there was no need for an additional power supply, which also directly resulted in cost savings. Van Heck’s engineers made use of the opportunity to admire the beautiful bridge from close-up.