



Heavyweight News from Sarens

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Dear Reader,

Turnkey heavy lifting & transport projects, safety, recruitment of qualified personnel, all in the lift at the Sarens Group:

- Benny Sarens, his sons Carl & Steven and our "Special Projects Department" team are extremely proud to announce some of their recent major achievements in bridge positioning activities. In the first quarter of 2004, we installed bridges all over Europe at an average of one a week. The most impressive of these are described in the enclosed "Special Edition Bridges" flyer.
- Due to improvements in our global project management organisation, we have built even further on the confidence and trust of both existing & new clients. This has resulted in an increased demand for our services. This demand has not only been in terms of bridge activities but also with regard to wind turbines, power plants and petrochemical activities.
- At Sarens, we recognise that client confidence only comes when safety is guaranteed. Therefore, Sarens NV Wolvertem chose to apply for the highest-ranking SCC (VCA) certification and was the first company in Belgium to obtain the 2-star (**) class. This is an exceptional achievement and the certification will be valid until 2007. We are also proud to announce that the Sarens France entity obtained her first ISO 9002 (version 2000) last April.
- In line with our global strategy, we have made considerable efforts to invest in recruiting high qualified personnel. In addition, we have commenced exciting new Joint Ventures including "Sarens-Trans-lift" in Australia, "Sarens de Venezuela" and decided to focus even further on the newly named entity "Sarens Asia" (see further).

We hope your confidence in us will continue to grow. We shall be happy to be of assistance and remain focused on providing the greatest customer service and quality for all of our clients.

Ludo Sarens
CEO Sarens Group



Carl, Ludo and Benny Sarens

Heavy lifting project on the PTT site in Thailand



Customer: Samsung Korea
Location: Thailand
Equipment used: AK680/2,
CC2400, KH1000

Our Sarens Asia organisation is proud to announce one of their first major orders from Samsung in Korea for the AK680/2. This crane has now been assigned to their region.

This challenging project lasted between January and February 2004 on the PTT site in Thailand. It involved our cranes lifting different vessels on the GSP5 Project Gas Separation Plant. We had to lift 4 heavy items in just one month on this particular assignment. This execution time included full disassembly and then re-assembly of the crane on site for each lift.



Heavy Lifting Work for the Kårstø Gas Plant in Norway



Customer: Aker Kvaerner, Aker Stord AS / Statoil
Location: Kårstø Gas Plant, Norway
Equipment Used: Demag CC8800, Liebherr LR1400/2,
Faun ATF100, 250-ton Climbing System, SPMT's

We can report that Transrig, the Norwegian subsidiary of the Sarens Group, was awarded the Heavy Lifting Contract for the KEP2005 extension project at Kårstø Gas Plant by its Main Contractor, Aker Kvaerner.

The contract included internal transportation and unloading at Aker Kvaerner's yard (Aker Stord AS), as well as loading in, transportation and lifting / installation at the Kårstø Gas Plant.

The heaviest and highest lifts in the opera-

tion were the 340-ton / 66m high CO₂ stripper and the 440-ton aftercooler. This was a particularly complex project as the space available for rigging the cranes was very limited. Our expert attention had to be given to the HSEW part of the works as many of the vessels and modules were lifted within close proximity of the operating process equipment.

Our Demag CC8800 crawler crane (1250T class) was equipped with 500 tonnes of super-lift ballast.



Recovery of a diesel engine on an island of the Azores



Customer: UTC-Bachmann Inc.
Location: Ilha de São Miguel, Portugal
Equipment used: SPMT's, Strand Jacks, Towers

Our Special Projects Department received an interesting order for the "recovery of a 300-T diesel engine" that had been dropped by others on an island of the Azores.

The order was placed by UTC-Bachmann Inc., an International Freight Forwarder and Logistics Services Provider. We were awarded this project as they considered our processes and planning to be the most effective and convincing, not only to UTC but also to the end client, Wärtsilä.

We are proud to announce that this project was successfully completed in March 2004 and executed within the agreed timescales. As a result, UTC expressed their desire to work with the Sarens Group both more frequently and on a global basis.



Steven Sarens
Project Manager



Offshore erection of meteomast in Egmond aan Zee, The Netherlands



Customer: Hydro Soil Services for Bouwcombinatie Egmond
Location: North Sea, near Egmond aan Zee / The Netherlands
Equipment used: Liebherr LR 1400/2

Sarens NV Belgium was commissioned by Hydro Soil Services to install a crawler crane (LR1400/2) on their Zeebouwer jack-up barge in order to erect the 104-meter high meteomast. This was 16 km offshore in the North Sea and was required as part of the reparation works project of the Near-Shore Wind Park.

During the first phase, the crane was assembled on the quay in IJmuiden in The Netherlands and comprised a 63-meter main

boom and derrick. Then she sailed on the Jack up barge Zeebouwer fully secured to the lifting location. After installation of the foundation piles and transition pieces, the crane sailed back to the harbour, in turn extending the boom to 119 meters.

In the second phase, the crane, now with an extended boom, successfully erected 3 pre-assembled mast sections of the 104-meter-high meteomast.

This logistically complex project required considerable cooperation between the Sarens' and the contractors' engineers. Together, the two parties undertook detailed lifting studies and security-at-sea calculations and pleasingly this resulted in safe and controlled actions, even in spite of the difficult weather conditions.

Labin Upgrading Project in Croatia



Customer: TL-Tome Lučić
Location: Island of Ugljan - Zadar, Croatia
Equipment used: LR1750

INA, the Croatian National Oil Company, decided to upgrade the oilrig "Labin" with a view to intensified oil explorations in the Adriatic Sea. This was arranged through their subsidiary, Crosco.

The oilrig was transported to the former shipyard of Nauta Lamjana on the island of Ugljan, located just off the coast of the city of Zadar.

Our Liebherr LR1750 crawler lattice boom crane was brought to the site and was used to lift new major oil-rig components including cantilever and drilling tower.

The most critical aspect of this project involved lifting the three-leg extension construction parts into position on top of the existing legs. Each leg weighed 106 tons and was 15m in length. The lift was successfully achieved with a boom length of 140m and full superlift ballast



Replacing three heavy convertors in Duisburg, Germany



Customer: ThyssenKrupp Anlagenservice Oberhausen.
Location: Duisburg, Germany
Equipment used: SPMT's, Climbing Systems

In 2004, our Sarens Germany office received an order from ThyssenKrupp Anlagenservice Oberhausen to change three 300-T heavy convertors at their Duisburg operation.

This was another complex project and involved a change over of the convertors during regular production in extremely limited space conditions.

We used a combination of 2 x 10-axle lines Kamag and a four tower hydraulic climbing system assembled on the Kamags. In addition, one of Sarens' swing mechanisms specifically manufactured to turn the convertor 90° on the climbing system was used. Each individual input took 10 days, running at 24 hours a day. We think this has to be some kind of a record!



Sarens Tele plants a 140-year-old tree



Customer: Louis De Waele
Location: Brussels, Belgium
Equipment used: LTM1250

One of our Sarens Tele's most intriguing projects was planting a 140-year-old tree coming from Florida. The construction works at the Assubel building in Brussels had entered the final stage and Sarens' expertise was called up on.

With the help of an LTM 1250 crane with 72m boom, Laroy, our Sarens tele Antwerp entity, first dismantled the tower crane in the central hall of the building. We were commissioned to do this work

as we are specialised in dismantling, moving and assembling tower cranes.

The most interesting phase was lowering the tree through the narrow opening in the roof.

At the point where the tower crane stood, the same mobile hydraulic crane installed the 12m high and 6000kg weighing tree package. Special attention had to be given to ensure that there was

not the slightest damage to either the tree nor the accompanying supports.

We confirm that this job has been completed successfully. This was due to the professional cooperation between both the crane operator and the contractor's lifting supervisor.



World War II Submarine relocation in Chicago, USA



Customer: Museum of Science and Technology
Location: Chicago, USA
Equipment used: SPMT's, Jacks, Sarskid

The Museum of Science and Technology in the city of Chicago selected Norsar LLC in the US, to move the World War II German Submarine U-505 which they have on display. This exercise required us to move the submarine from an outside viewing area to a new, underground exhibition hall.

Following a two-year search, Norsar was selected as the most technically competent company, capable of meeting the unique needs of the museum. The needs were unique because the client intended

to make the move when part of its current exhibits was open!

Norsar Project Manager, Ralph DiCaprio, used self-propelled dollies, climbing jacks, a slide system and super shoring, as well as a step-jack guided lift system to move this huge, 750-ton submarine from the old location in the museum to the new location. From there, he had to ensure that it slid out over the freshly dug pit of the new exhibition hall before being lowered and then moved a further eleven meters down into its final exhibition position.



Transporting historic ship structure in The Netherlands



Customer: Sea Cargo A.S.
Location: Veluwe, The Netherlands
Equipment used: LTM1300

"De Kil Amsterdam B.V.", one of our Dutch Sarens entities and the Norwegian Sea-Cargo AS completed a unique transport cycle. Built in 1912 and broken up in 1960, the passenger accommodation unit of the Norwegian SS "Finmarken", set off on the return journey to the Hurtigrute Museum in Stokmarknes.

It was the task of De Kil Amsterdam B.V. to transport the ship section from Veluwe to a port in Harderwijk.

After jacking up this colossus was installed

on to a low loader by a 300-ton hydraulic crane. Measuring a five meters wide and five meters high and weighing no less than 130 tons, it was transported through the Veluwe woods via the A1 to Harderwijk.

Upon arrival, the same 300-ton crane placed the section on a river-craft and from there, the passenger accommodation unit was further transported by water direction Norway! We are proud of this historical move!



New Desalination Unit in Arzew, Algeria



Customer: Itochu Corporation/IHI-JEL Japan
Location : Arzew Desalination and Power Project – Algeria
Equipment used: Demag CC 2000 SH , Sumitomo SCX 2500, Kobelco 7150, 35 – 80 T hydraulic cranes.

In 2004, Sarens NV won the heavy lifting and installation contract for the new desalination unit in Arzew. We will be lifting several blocks of up to 120 tons. Initially was foreseen to use a tandem lift. Our engineering department has studied a single-lift solution.

This innovative solution meant that the heavy lifting will not only be more efficient

but also quicker than initially anticipated. Local crane servicing has and will continue to be carried out by Sarens Algeria, providing all hydraulic cranes from the local fleet.



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newsletter@sarens.com

Revamping works at Atomium in Brussels



Customer: Jacques Delens-Besix
Location: Brussels, Belgium
Equipment used: AC700 SSL

The Atomium, Belgium's most famous monument, is being thoroughly renovated. Sarens.tele was chosen to facilitate the clearing out of the top sphere, which houses the kitchen and the restaurant. As it was not possible to get the waste material down by elevator, the highest hydraulic crane of the country was brought into

action: our Terex-Demag AC700 lifted a waste container of 2.5 tonnes to a height of 100 metres. There, the container was loaded with 4.5 tonnes of waste. This scenario was repeated 4 times. Due to the Atomium's specific shape, this was truly a spectacular masterpiece.



Coming up soon : projects 2004

Multibrid: Prototype windturbine 5MW - Germany

Siemens: Mymensingh Combined Cycle - Bangladesh

Enercon: 5 MW Windturbines erection on- & offshore in Emden - Germany

Technip: DHC Unit Gonfreville - TotalFinaElf site - reactor lift of 1350 T - France

Hellenic Petroleum: FCC Revamp - Greece

Scanwind: installation of a wind turbine with tower lift concept - Norway

Pemosa: Transport & Lifting of a reactor - Mexico

Kugelberg: first windpark Gamesa Eolica in Germany

Lifting of a LCU offshore bridge section module in Lowestoft (UK)



Customer: AKD Engineering Ltd
Location: Lowestoft (UK)
Equipment used: AK680

Sarens UK undertook a project for AKD Engineering Ltd of Lowestoft, UK, which involved lifting a bridge section module weighing 300 tonnes. The exercise comprised a 1200 T crane being rigged with 53m main boom plus 250 T maxilift counterweight.

This was the first time that AKD Engineering Ltd had used our Sarens UK entity and they were delighted with the professionalism and expertise we displayed to them from start to finish.

The bridge module was picked up at a 14m radius with OT maxilift counterweight and the maxilift tray was then connected.

The crane boomed out until the maxilift counterweight came to float before slewing. The bridge module was then successfully lowered in to position.



Erection works for the installation of wind turbines



Customer: Wind Turbine Contractors
Location: Portugal
Equipment used: LR1400/2, LTM1090 hydraulic cranes

The Sarens Group has recently signed a number of contracts for crane works and / or erection works for the installation of wind turbines in various European countries. Windturbine contractors involved are Gamesa Eolica, Vestas, NEG Micon, Enercon, Repower, Bonus, Multi-brid and GE-Wind.

This picture was taken at one of our job

sites in Portugal, where we have installed over 30 turbines in recent months using our state of the art LR1400 crane. For wind turbine installations, we specifically use a long main boom with the Sw configuration available upto 98 m. This crane currently remains assigned to the Southern European region.



Sarens Asia



The Sarens Asia management team. From left to right: Mr. Jungmu Suh, Antony Banfield, Eric Van Mulders

We had the unexpected opportunity to expand Sarens involvement at our Asian headquarters located in Thailand. At the same time, the company name changed into Sarens Asia and additional investments in both machinery and personnel were made.

This change has put the Sarens Group in a considerably stronger position to meet the local demands generated from what is an ever expanding Asian market.

Our Sarens Asia management team (shown above) will be pleased to assist you in Dutch, French, English, Korean, Thai and German. They can be reached on tel +66 38 300 315, fax +66 38 300 314 and by e-mail at sarensasia@sarensasia.com

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