MAMMOET MAIL

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WINTER '95/'96 NUMBER 26

MAMMOET SHIPPING SAILS ON

THE ULTIMATE CONSTRUCTION TOOL

THE SLEEPING GIANT

INDUSTRIAL MAINTENANCE

MAMMOET CONTENTS

MAMMOET MAIL

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Spliethoff President Gerard Bos and Mammoet Shipping Director Arie Peterse unveil the future of Mammoet Shipping. A newbuilding programme will beef up the Mammoet fleet in quality but not in volume. The synergy between the two shipping companies already pays off and the Mammoet Shipping organisation is settled at their new premises in Amsterdam.

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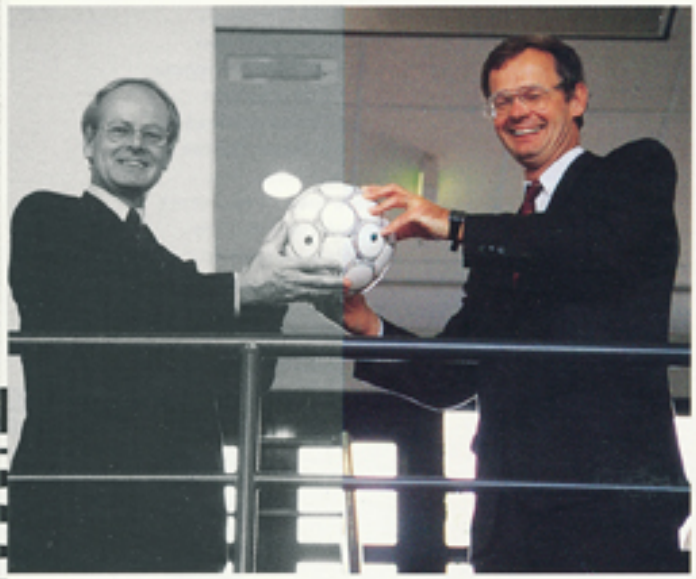
Mammoet Shipping's "Project Europa" was loaded in Porto Marghera (Italy) with a radiant syngas cooler destined for the Polk Power Station in Tampa, Florida. In a future issue of Mammoet Mail you will find the complete story of an integrated transport project, executed under the supervision of Davenport Mammoet.



Arie Peterse, Managing Director Mammoet Shipping

ALAD VAN LEEUWEN

Mammoet Ship

In the next year and a half a number of older vessels from Mammoet Shipping's fleet are to be replaced by a series of completely new designed heavy lift vessels. According to Mammoet Shipping's Managing Director Arie Peterse, part of the development of these vessels can be contributed to the efforts of both Nedlloyd and Spliethoff's Bevrachtingskantoor. Ultimately, all these endeavours have resulted in a special type multi-purpose heavy lift vessel that will be extremely flexible and suitable to carry a wide range of cargoes.

ping sails on

"Although we have had the idea to have new heavy lifters built for the last four years," says Arie Peterse, "we did not start seriously until a year ago. First we wanted to determine carefully what we need. Therefore, we made an inventory of the wishes of our clients and the expected developments in the transportation of heavy lifts and project cargoes. Mammoet Shipping's being active as Pool operator since 1984 is a great advantage when deciding on a new concept. From that time we have operated virtually every type of heavy lift vessel, so that we can meticulously compare the performance of the different ship types. Beside which we have obtained a wide range of commercial and operational experience with both our own vessels and our pool partners'. A first concept was born from the analysis of this data, which formed the basis for the development of the design. A new ship should not be too sophisticated, and thus not too expensive; the size of the vessel is important to reach sufficient economy of scale. We have chosen for a hold capacity of about 15,000 cubic metres. This choice is based on the experience we acquired with the "Project" type vessel. When looking at lifting capacity, we arrived at two 360 degrees rotating heavy mast cranes, each with a lifting capacity of 400 tonnes. This type of crane has more or less become the standard in the heavy lift market since the introduction of the "Happy Buccaneer". The vessel has to be rather fast, as the clients more and more require short transit times and reliable schedules. A service speed of about 16 to 17 miles is preferred."

Costs

"While developing the design we try to arrive at minimum operational costs. Especially the port and canal dues and the costs for cargo handling are seriously weighed. For cargo handling this means for instance that the loading gear must not only be fit to handle heavy cargoes, but also break bulk. Efficient handling of the hatch covers is also important. Furthermore, the double bottom,

Part of the crew of m.v. " Happy Buccaneer"

upperdeck and tweendeck need quite a high permissable load. Last but by no means least the fact must be taken into account that the crew plays an important role in trying to control the operational costs.
Other subjects that have been dealt with are for instance the holds, which must be box-shaped and fitted with many lashing points. Gross tonnage cannot be too high and good manoeuvrability by controllable pitch propeller and bowthruster is essential to avoid the use of tugs.

Input

"When we look at the "Happy Buccaneer", Peterse continues, "we learned that this vessel adequately covers the top end of the market. It is therefore not necessary to build more ships of this type; the volume of this market does not allow it. Therefore, we aim somewhat lower with our new design with regards to size and lifting capacity. But then again, not too low, as the light end of the market is also sufficiently covered. One problem we face is the new rule on damage stability. Because of the new regulations, a vessel like the "Happy Buccaneer" can no longer be built with the same large hold. We asked the Fleet Department of Nedlloyd to determine the limits for our concept with regard to damage stability. They were asked to check if our preliminary design adheres to the new damage stability regulations. Although this proved an intensive exercise, we were able to adapt our concept to the calculation results. With these in hand, we developed a "pure" heavy lift vessel."

In the same period, Spliethoff's Bevrachtingskantoor became a Mammoet Shipping shareholder. Spliethoff too has looked at the concepts from their own points of view and experience. It then turned out that our proposed vessel would not be able to carry many of Spliethoff's regular cargoes. On this basis we modified the design so that the vessel has become much more "multi-purpose". We have now arrived at an ideally employable vessel, that can load and carry virtually all cargoes. To cut it short, because of the input of all parties mentioned we can soon sail a special type multi-purpose heavy lift vessel, which may take a complete project cargo as well as for instance a cargo of steel. Furthermore, it is possible to carry, say, a number of heavy pieces on deck and a cargo of paper in the hold. The ship will be fully container-fitted with a capacity over 1000 TEU. With a speed of 16 to 17 knots the ship will be a very good feeder in today's market. To my mind Mammoet Shipping's power is the potential to find combinations of cargoes with Spliethoff, so that we are able to optimize the use of our new vessels. Through Spliethoff's network

Container cranes to Panama

Mammoet Shipping's m.v. "Happy Buccaneer" and charter vessel m.v. "Sea Baron" delivered four semi knocked down container cranes to the Manzanillo International Terminal in Colon in Panama. The cargo had been collected from Mipo in Korea where H.H.I. had built the cranes. The "Sea Baron" was used solely for transportation, while the m.v. "Happy Buccaneer" carried out the erection work with her cranes, discharging both vessels.

For transportation purposes the four cranes had been broken down in three main parts: the upper portal of 521 tonnes, the lower portal of 375.6 tonnes and the seaside boom of 152.3 tonnes, which also included forestays and part of the trolley arrangement. Further parts of the cargo consisted of various ladders, stairways, platforms and trolleys. In Mipo the cranes were loaded on to the "Happy Buccaneer" by her own cranes, whereas the "Sea Baron" was loaded by H.H.I. shore and floating cranes.

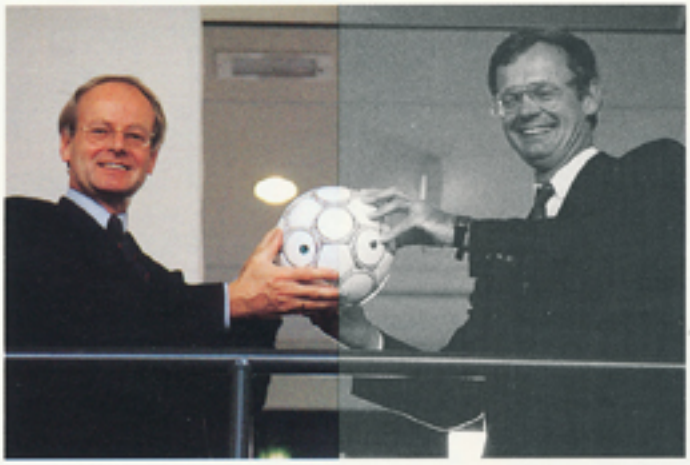
As soon as the "Happy Buccaneer" had crossed the Pacific Ocean, she discharged the crane parts while at the same time assembling the pieces. The lower portal was landed in the rail on the quay; then the upper portal was discharged onto supports; the sea-side boom was placed in the upper portal, and finally, the complete top unit was positioned on the lower portal, waiting in the rail. Once the assembly of the first two cranes had taken place, the "Sea Baron" arrived in Colon; it had left Mipo later than the "Happy Buccaneer" and needed more time to cross the Pacific.

The m.v. "Happy Buccaneer" was also used for the unloading and assembly of the two cranes on board the "Sea Baron". The same sequence applied, only now, the "Happy Buccaneer" lifted the cargo from the "Sea Baron" on to the quay.

we have access to the complete dry-cargo market, so that the vessels will always find cargoes. Our main market will of course be the heavy lift market where Mammoet Shipping forms part of the Mammoet transport chain, enabling integrated transport from factory to foundation. Meanwhile we have asked various yards worldwide to give their indication for three new multi-purpose heavy lift vessels plus an option for the same number. Early 1997 we hope to be able to avail over the first three new vessels, which will replace existing capacity. We do not have any intention to add to our capacity. This would lead to unnecessary overcapacity and nobody is waiting for that in the heavy lift market," according to Mammoet Shipping's Director Arie Peterse.

The container cranes will be part of the container transshipment location assigned to the new all-water services between Asia and the East Coast of the United States via the Panama Canal of Nedlloyd Lines, American President Lines, Mitsui O.S.K. Lines and Orient Overseas Container Line

Cees Visser, Superintendent Mammoet Shipping



"The strength of our company", according to Gerard Bos, President of Spliethoff's Bevrachtingskantoor, "is that we can move the individual vessels of our large fleet as chess pieces over the world. That is why we can offer our clients the right vessel at the right moment. And together with Mammoet Shipping our service has increased even more. We can now offer a complete package of transport services."

The power of Spliethoff:

"Spliethoff takes large contracts from the market", says Bos. "Especially in the field of forest products." We have multi-purpose vessels at our disposal. Therefore, we are able to take general cargo, break bulk, containers, fruit, onions, etcetera. Because of our strengthened tanktops and a lifting capacity of 100 tonnes, we can also take on heavier cargoes. That is where the synergy lies with Mammoet Shipping. As a shipowner, we now

worldwide chess with vessels

have 56 vessel at sea. On June 15 this year, the latest newbuilding, the "Emmagracht" was delivered. Our vessels vary in deadweight from 6,000 to 12,700 tons. Their average age is seven years. The oldest ship was built in 1981. We employ more than a thousand seamen while the officers are all of Dutch nationality. Our office in Amsterdam houses a staff of 90. Apart from serving many larger and smaller contracts we are also active on the spot market. Our vessels are put to work throughout the world and extensive standardisation enables us to keep check on costs."

Synergy

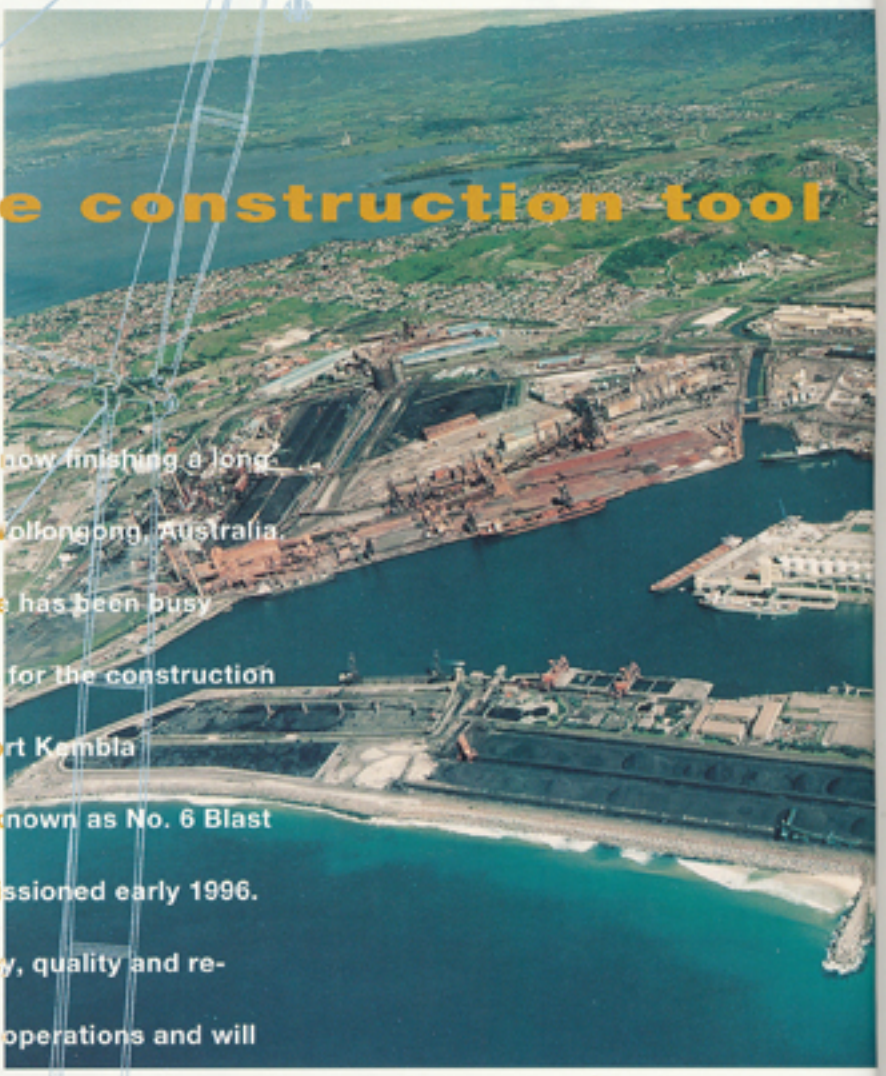
"The initiative to become a share-holder in Mammoet Shipping did not come from us but from Nedlloyd. We agreed to it because Mammoet Shipping's activities form a very natural addition and strengthening of our own. We already had a position in the lighter part of the heavy lift market, but in practise it turned out that we were often hunting after the same cargoes.
The thing that struck us most when we looked in to Mammoet Shipping's heavy lift fleet was that their vessels were in fact too specialised in transporting heavy cargoes. And that the vessels make long ballast legs. If on these ballast legs the vessels can take general cargo or something or other, the vessels can make much more return. Even as we speak we see that this synergy between Mammoet and Spliethoff works. Since Mammoet moved in with us, both commercial departments have regular contact. Thereby it has happened some five or six times that we could provide general cargo to fill the heavy lifters' empty legs. On the other hand though, it also happens that cargo offered to Mammoet Shipping is shipped on Spliethoff vessels." As an illustration may serve the heavy piece of 420 tonnes which had been booked by Mammoet London and was recently loaded in Houston on board Spliethoff's "Pietersgracht" to be shipped to Thailand.
Bos continues: "I think that both shipowners will be able to use each other's strong points even more in the future. Where we have a very strong technical department, Mammoet has much experience in the field of engineering."

Newbuilding

"Of course, we have looked at Mammoet Shipping's newbuilding plans and we saw that the concept was much too much focused on the transportation of heavy cargoes. To be able to keep afloat in the future means that one must build a vessel that is also fitted to carry paper, steel, containers and the like. Such a vessel will certainly earn its keep in these markets. And if the vessels can also profit from the heavy lift market, they can really be called flexible.
Therefore, the design has been adapted in sofar that the vessel has now become a multi-purpose, open box vessel with the main emphasis on heavy transportation. All this is clearly based on the many years experience we have acquired with our own multi-purpose freighters. These are also very functional for the transportation of a large variety of cargoes. By investing in multi-purpose heavy lifters, I think we will be able to draw much more profit from Mammoet Shipping's fleet. We see the first results now by booking cargoes on each other's vessels; and by working closely together, we are now able to offer our clients a total transport package. Together with Mammoet Transport we can also take on land transportation contracts. By moving the vessels over the world as pieces in a game of chess, we are able to supply our clients with the right vessel at the right time," according to President of Spliethoff's Bevrachtings-kantoor, Gerard Bos.

PAS

The ultimate construction tool



Walter Wright Mammoet's M1200R is now finishing a long-term lifting contract at BHP Steel in Wollongong, Australia. From January 1995 onwards the crane has been busy erecting modules and other materials for the construction of a new iron making facility at the Port Kembla Steelworks. The new furnace will be known as No. 6 Blast Furnace and is expected to be commissioned early 1996. The new facility will improve efficiency, quality and reliability of Port Kembla's iron making operations and will have a production capacity of around 7,000 tonnes per day. The engineering for this major project was undertaken using a specialised BHP team in partnership with a consortium led by Davy John Brown. They are responsible for managing the engineering, procurement and construction management (EPCM) of the project. Alec Taylor, Corporate Construction Manager of Davy John Brown (DJB) tells us about his experience during the past nine months with then a complete new lifting device.

"In January we started receiving the first elements and since then the M1200R has gone through a period when it was used essentially as a structural steel erecting tool. Separate contractors brought in the materials for the major modules, which were engineered to be handled by the big crane; a synergy, so to speak, between the crane size, its capacities and the modules we designed." Alec Taylor, friendly face, moustache and a thoughtful speaker, continues in his makeshift office at the construction site: "We have now arrived at the situation where you see the furnace having reached its absolute height. We have one major downcomer to lift and a major gantry structure that will be at the limits of the crane capabilities and outreach. Rather than major lifting we're now talking less than a few hundred tonnes in any given situation. The main gantry is going up probably at the end of September and then we intend dismantling the crane mid October. From the time the M1200R leaves the site, we are dependent on the furnace own lifting equipment."

Alec Taylor (57) is a Davy John Brown Australia man; Corporate Construction Manager for over fifteen years. He managed and operated all the construction works that DJB undertook around Australia and New Zealand.
"I am a mechanical engineer by trade and have been involved mostly in the petrochemical resource industry in Australia in the last 30 years. In my experience remote locations require modules which in most cases reach the capacity of the available cranage in the country. So our limits have been set by what was available on the ground and that was precious little. Nowadays we all are driven not just by quality but also by the desire to maximise safety and minimise any exposure on any given site. In this way we limit the cost of scaffolding, the number of people working high up and we can get all facilities, tests, etc. done close to the ground. We have influenced the design concept on the basis 'do it on the ground, do it in big modules and use the best and most sophisticated equipment that you can get'. Then take the commercial decisions that lead you down that road. I must say that BHP have been thoroughly sympathetic of the concept and have seen one of the best safety records on construction in Australia generated in part by lift equipment such as the M1200R".

Taylor explains that the furnace is more or less self-supporting with respect to maintenance work, whereby installed winches and internal monorails provide the lifting power for replacing the rotating machinery or exchanging old or worn-out pieces.

New concept in cranage

Given the fact that Mammoet's M1200R cranes have already proven their capabilities during several "power lifts" in Dubai, Singapore, Malaysia and Thailand, we enquired after Taylor's likes or dislikes while experiencing the first long-term involvement of the crane used in a different concept.
"I think the crane's flexibility is important to us. One of the most important criteria for selection of a lifting system used was that the crane should be able to handle the height and weight conditions that had to be met in constructing this furnace. So we looked for sufficient outreach and capacity at radius and designed the modules accordingly. The M1200R looked well technically and together with our experience with the ringer cranes

The ultimate construction tool

AAD VAN LEEUWEN

4100/4600 models this lead us down the path. We definitely could not handle anything with a stinger or a trailer attachment that would occupy a large area. That brought us to the ringer, being the system that took up the least amount of real estate. From there the M1200R could probably be beaten by the dead weight lifting capacity of other cranes, but not in reach and flexibility.
Commercially it was touch and go, but then again a specific benefit was that we could use the M250 crawler crane before and after ringer use".

Taylor's secretary comes in with a fax and after a quick glance he lays it aside. "The lack of track record was something of a concern to us; particularly the electronic side of its control and the use of the crane with high counterloads. But Manitowoc had provided the reassurances and certainties that we needed. We only came across a couple of problems with the crane."
Alec Taylor refers to the friction between the nylon sheaves of the M1200R, which forced Mammoet to change them with the normal steel ones.
"We are still not sure of the exact cause of the sheaves problem. There probably is some fundamental reason in plastics engeering for what we saw, but certainly with the replacement of those sheaves with steel ones, we had no further problem with the reliability of the crane. The other instance was a mechanical problem with one of the hydraulic motors, which incident underlines the importance of having duplicates and a kit of spares available to avoid delays."

One fixed position

"We can claim some influence on the M1200R system. We asked for it to be equipped with a little whiplock besides the usual two winches and two sets of hooklocks. In fact this turned a major crane into a mid-range crane with the same or better speeds than could be expected from a comparative unit. So we finished up with a crane that was able to lift a tonne with the speed of any mid-range rubber tire crane. That proved a great boon for us; we were able to do the fiddly bits using the crane as a huge construction tool, which is quite special, given that the crane was in a fixed position. This made the crane a reasonably high speed unit that serviced all of our needs, particularly in height. The crane never moved from the time we determined the loads to be lifted. We just moved the fabrication and assembly areas within the crane's radius and organised a plan for all the work to come under the hook. We never found it necessary to relocate the crane".
Taylor continues with a smile on his face: " It's interesting to know that the M1200R depressed its foundation about 75 mm over ten months. So we have seen the thing settle and now we have the most densely compacted ground in the district".

Initial contact

"We as the designers had used Walter Wright Mammoet before around Australia and New Zealand and we were familiar with their operations here and in Singapore. When we were designing the construction plan for the blast furnace, we decided there were two or three lifting methods, by crane or otherwise. One of these was Manitowoc's M250 range, convertible to a ringer system that attracted us. The contact was made in the early stages via Kevin Williamsen, who had been working with us on one of the other projects. His intelligence of what Manitowoc were doing with their major M1200 range of cranes started us off in looking at that

particular unit in comparison with the Demags and Lampsons being offered for a similar duty."

Taylor goes on telling that they asked Walter Wright Mammoet to come over and explain the physical size and capacity of the M1200R as it was being marketed.
"On paper it seemed to us as if it could give us everything we needed; its track record and utilisation was something we had to come to terms with. Knowing that the other M1200R was heading for Dubai at the time, we would be one of the early users. It was an adventure, so to speak, in the higher lifting capacities. There have always been possibilities to lift something up to 800 tonnes, but to go to the next stage of 1200 tonnes capacity, that was something else. In fact we did not need all that capacity, but what we wanted was its equivalent in height and outreach".

Taylor pauses to take a sip of his coffee and continues: "Although having said that, in the cause of the job we achieved lifts which were at the limits of the charts, of course backed by the properly engineered applications of additional counterweight and correct lifting techniques and studies. We actually took the unit on one or two occasions to its ultimate capacity and I must say it worked out very well. The crane is just such a smooth construction tool; its operation, its control by the people who use it, from the driver to the mechanic to the contractors. Bear in mind that, as the engineering managers, we could and did contractually offer the crane free of charge to contractors who had their own construction programmes, hinging on the availability and use of that crane. So we took a risk in being fully dependent on the one crane's integrity; if the crane had not been available the contractors as well as the construction programmes would have been commercially affected. Although this is not courageous from an engineering point of view, it definitely is courageous from a commercial contractual point of view".

AvL

Australia is a country rich with resources, which are progressively being utilised. While the resource industry is picking up, the oil industry, specially the downstream sector, proceeds with new unit development at a slightly lower pace. The industry as a whole is becoming more efficient. Asia is the prime target for export; coal and iron go mostly to Japan. The economy here is very sensitive to what is going on in the rest of the world. Australia is not an economic prime mover and the desire to invest money is very highly influenced by what is going on at the New York and European stock exchanges.

Mammoet in Focus

Rayong industrial park

RAYONG - Walter Wright Mammoet's new series of Manitowoc M1200 Ringer cranes are accepted worldwide as one of the most versatile ringer cranes requiring a minimal space area. The nucleus of the crane the M250 can be used as an ordinary crawler crane, while the 1,200 tonne attachment unit can supply a nominal lifting power of 1,300 metric tonnes. In Map Ta Phut, Thailand, an 80 metre, 275 tonne propylene distillation tower was erected and positioned by the 800 tonne boom version of the M1200R at the National Petrochemical Co. NPC's olefins plant is the upstream unit of Thailand's first petrochemical complex. Its expansion is aiming at the accommodation of the country's growing demand for petrochemicals.

White gold

HARLINGEN - The trailers and cranes of Mammoet Stoof were involved in the construction of a salt evaporator plant in the North of the Netherlands. Five large salt diluters, the heaviest weighing 115 tonnes with a diametre of 11 metres, were positioned with pinpoint accuracy by a 400 tonne lattice boom crane with a 90 tonne telescope crane as tailing device. Earlier, sister company Neddrill had drilled the boreholes near Sexbierum. The "white gold" will be taken to the salt plant by pipeline over a distance of 8 kilometres. Client Frima expects to start production at the end of this year.

Around the church

BREDA - The "Onze Lieve Vrouwe Kerk" ("Our Lady's Church") in Breda, the Netherlands was inspected with the help of Mammoet Stoof's 300 tonne telescope crane. The renown church in the centre of Mammoet Stoof's home town dates from the 15th century and its construction appeared to be in splendid condition.

Mammoet-Force-Transport

EUROPOORT- Mammoet Ferry Transport moved a number of historic canons from the U.K. to Rotterdam, where the equestrian event CHIO was held. The guns are also being used on special occasions, as for instance the state funeral of Sir Winston Churchill in 1968.

Pylon on the move

FLUSHING - At the Heerema construction yard at Flushing the main section of the Erasmus bridge was loaded out by SPMTs on to a barge. The 1800 tonne boom section was later on erected by Heerema's crane vessel DB102 and installed in Rotterdam where the bridge will span the river Meuse.

Extension power plant

EEMSHAVEN - Various (inland) shipping, transport and lifting operations were carried out by Mammoet Stoof for an extension of the Eemshaven power plant. The different heavy transport modes involved were barging, floating crane operations, heavy transport over land, skidding/jacking and Hydra Jack lifting operations.

Whale in transit

ROTTERDAM - A replica of a blue whale was shipped and transported by Mammoet to the "Blijdorp" zoo in Rotterdam. The whale is part of a whale exhibition at the zoo and can be viewed until the end of October.

Ferry assembly

RAAMSDONKSVEER - For the assembly of an inland ferry Mammoet Stoof used their 500 tonne telescope crane. The ferry will be operated at a river-crossing in Germany. Shipyard Ruijtenberg is specialised in this type of shipbuilding and in ships' repairs.

PP-splitter installed

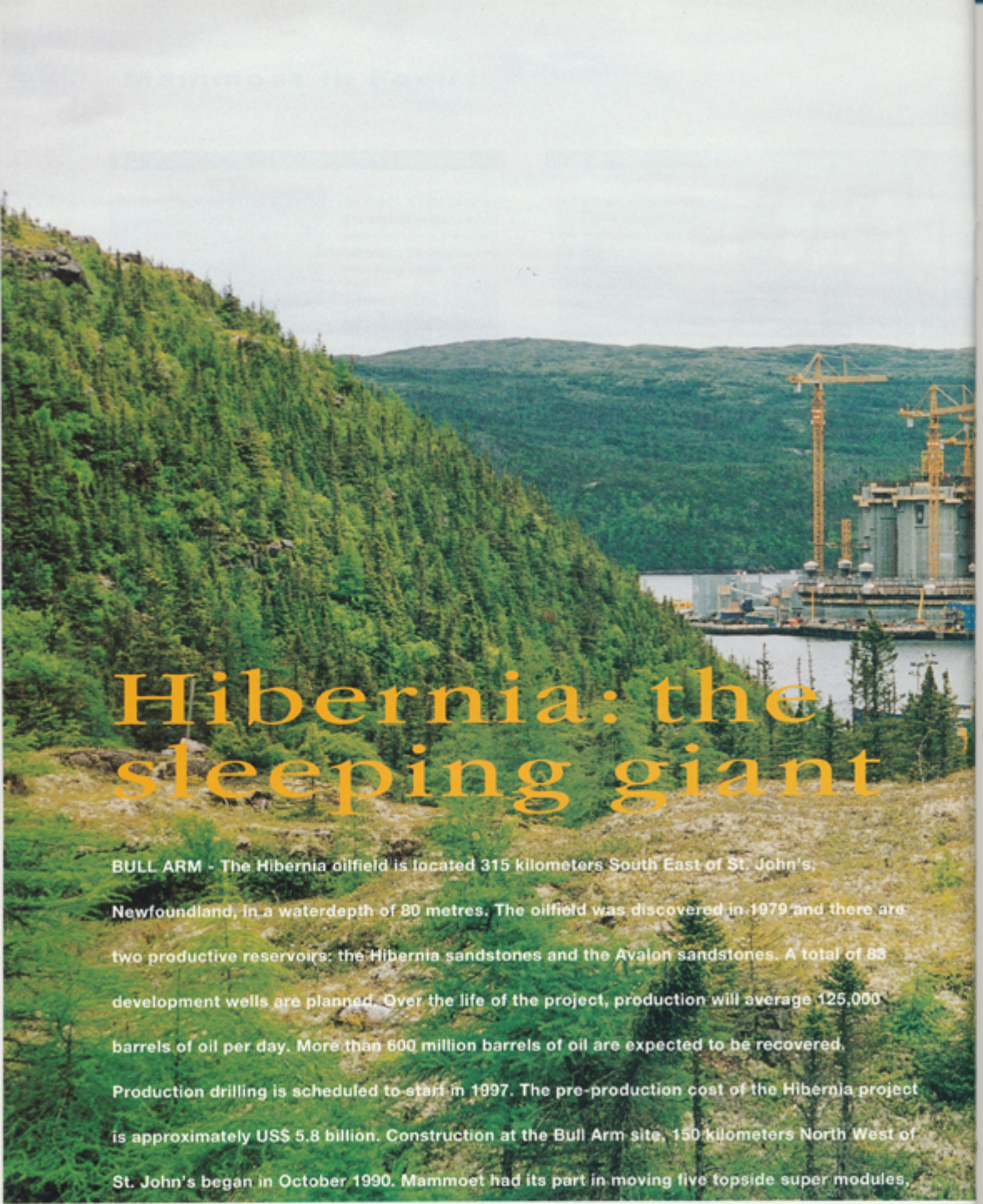
ROTTERDAM - In a combined transport and lifting operation a so-called PP-splitter was placed on to its foundation at the Shell refinery at Pernis. The 80 metre long distillation tower with a weight of 520 tonnes was erected with Mammoet's Hydra Jack system.

High level lifting

PRACHINBURI - Last Summer, at the Advance Agro plant in Prachinburi,Thailand, a nearly 100 metre high stack was assembled with the help of Walter Wright Mammoet's Manitowoc 4100-S3 ringer crane. The job was executed with a 105 metre main boom and a 10 metre flyjib.

Shiplift and transport

VOLLENHOVE - With two telescope cranes and a set of SPMTs a multi-million guilder yacht was lifted out of the water and taken to a construction hall at the Huisman Shipyard. The yacht will be overhauled and reshaped according to the client's wishes.



Hibernia: the sleeping giant

BULL ARM - The Hibernia oilfield is located 315 kilometers South East of St. John's, Newfoundland, in a waterdepth of 80 metres. The oilfield was discovered in 1979 and there are two productive reservoirs: the Hibernia sandstones and the Avalon sandstones. A total of 83 development wells are planned. Over the life of the project, production will average 125,000 barrels of oil per day. More than 600 million barrels of oil are expected to be recovered. Production drilling is scheduled to start in 1997. The pre-production cost of the Hibernia project is approximately US$ 5.8 billion. Construction at the Bull Arm site, 150 kilometers North West of St. John's began in October 1990. Mammoet had its part in moving five topside super modules, varying in weight from 4,766 to 8,200 tonnes. Mammoet Mail was there to witness another major step in the offshore oil development in Canada today. Henk van Zante (63), Hibernia's Construction General Manager, tells us more about the awakening of the sleeping giant.

ARD VAN LEEUWEN

Hibernia: the sleeping giant

As a construction manager, Henk van Zante gained experience in building oil production platforms — Statfjord A, B and C — during the 13 years he worked in Norway. He emphasizes the fact that he is lucky to have so many skilled people working alongside him, which partly stems from his Norwegian period, and that a project as Hibernia is not a one-man-job.

He was already in Canada in 1985-86, when Mobil was more or less the sole operator, trying to find out if they could develop Hibernia. Unfortunately, the oil prices went down and the whole project was shelved. Van Zante returned in late 1990 and was put in charge of building the steel topsides, being the deck of the platform. At the same time the site was being developed and the drydock was built. About two years ago, the construction of the topsides was well on schedule, but the planning for the GBS ran behind. Van Zante was requested to take over the responsibility for building the concrete structure as well and for a time he commuted between Montreal and Bull Arm. His team adjusted the method of building the concrete platform and got the job turned on schedule again.
Henk van Zante is now in charge of the total construction of the Hibernia platform.

AAD VAN DEIJKEN

"The difference in construction between the oil platforms in the North Sea and this area is tremendous." Van Zante just returned from an inspection round at the site, where the 5,114 tonne living quarters module is driven off from the "Mighty Servant" on to the assembly pier. "In these waters with all the icebergs coming up, we have designed a concrete platform, that can withstand a certain volume of ice at a certain speed and impact and that particularly makes the concrete base extremely complicated. In fact it is one of the most complicated concrete

structures ever built, regardless of industry or place. The structure has the highest rebar density, for instance it surpasses even the quantity and quality of the concrete reinforcement of a nuclear reactor." The phone rings and with a short "later" van Zante continues: "We went for a completely new principle of how to build topsides. Normally, they are built with the mainframe produced first and then the smaller modules put on top. These could range from eight to sixteen units and that construction method in particular gave us some problems here. What we decided was to devide the topside in five big pieces and create a pier where we could place the modules next to each other. Later on we can then position barges underneath the structure, lift it off the pier and mate it with the Gravity Base Structure (GBS)."

"These large modules cannot all be built in Canada. Actually, one of the smallest modules was built here on site and the other four went to Hyundai in Korea and Belleli in Italy. Then the question has to be answered as to how to transport them and getting them onto the pier. One of the partners in that whole study, which took more than three years, was Mammoet together with Dockwise for the ships. You have seen the end result of all these studies, the planning and the meticulous going through every step during the load off." Van Zante looks outside and states: "Honestly, I'm very happy and very satisfied with the services of Mammoet."

Modular transportation

The question is raised what aspects are involved to construct such a project modularly or stick-built. Van Zante: "We went for the modular way, because you can spread out your requirements, mainly manhours, all over the world at the best and most economical places and then move it to one area, where it will come together. When such a project is stick-built, everything has to be done in one place, which puts enormous pressure on the environment, not to think of the tremendous labour force you need. Moreover, for the Hibernia project we have, of course, chosen the most economical and best fabricators."

About the more expensive transportation method, Van Zante reacts: "If you think of how expensive it will be to have to extend the planned schedule, because all the manhours cannot be dealt with in one place in such a short period — you know, the modules you see there were built within two years. Certainly this would not have been feasible here, in this area, nor in Europe." On the question in what phase you should start thinking about the transport he answers, "Zero, right away. Because, if you cannot transport it, you have to forget it. Actually, regarding the load-off, we studied here the possibility to skid it all from the ship onto the pier, etc. But the wheels were just the right solution. And at the end it appeared to be the most effective method, and that usually is the most economical way as well. So, with respect to this question, right away from the very first phase, you have to look at how you can transport it, what your limitations are. Of course we could not transport an 18,000 tonne module. We already had 1200 wheels under this one." About the criteria laid on the transport contractors: "First of all you should ascertain yourself that

they can meet the criteria — are they financially sound, do they have the optimum quality in equipment and then last but not least, do they have the expertise. If we look at Mammoet and their competitors, there were two other companies who could compete. But in the end it was the number of wheels that could not be supplied by the others. So that combination, the plus point of dealing with one company on all those issues and then in the end the price, decided that we would go for Mammoet and the same counts for Dockwise."

One of a kind

The Hibernia oil platform is one of a kind and not comparable to the ones built in Europe. To be situated in the harsh environment of the North Atlantic waters, the GBS has an ice wall designed, to withstand the impact of a six million tonne iceberg. What is the chance that an iceberg will actually hit the concrete platform? Van Zante, "Well, you know, the banks have a water depth of eighty meters, so we know that the really big ones cannot reach us. They will all be stranded long before that. But from the ones that can come over the banks we know how large they are and we can detect these icebergs early on with satellites, etc. In the mid eighties we developed a system to see where they are going. If they come our way and if they are of a size that allows them to come over the banks, we will activate a system of two large supply boats with a huge net. These will go and catch the iceberg. This may sound simple, but it is a solution that works. Of course it is clear that an iceberg cannot just be pulled away. But by towing it continuously, for days and days on end, the colossus' course can gradually be deviated. In the end, however, this would all be a complete waste if the wind changes its course. But in the event that we have done everything we could and the berg still hits the platform, we are more than confident that the structure will withstand that force and stay in tact and producing.

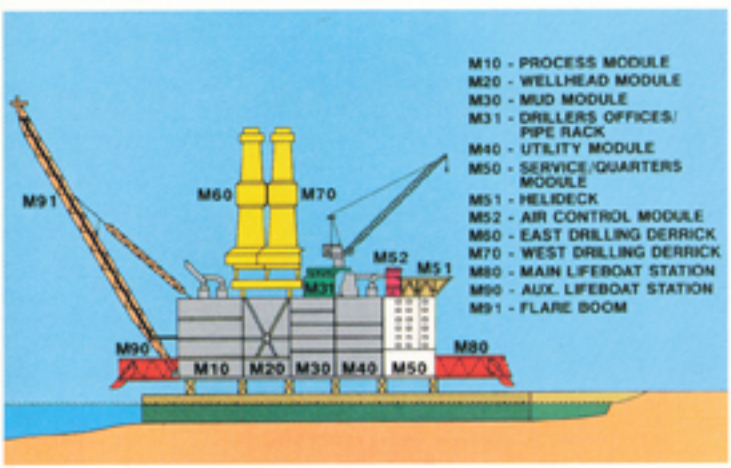
The past and the future

About the future of Canada's oil development and the question if there will be a second Hibernia project, Van Zante answers, "We have the Terra Nova field nearby which seem pretty promising. I think it will be a goal in the near future, but I doubt that a concrete platform will be built again. Other solutions will be looked into but that is one of the promising fields. Then, when you have such a big platform out there like Hibernia, a lot of smaller fields become explorable because they can be tied in with the big brother over there. It opens an area where people are looking more intensely into the minor field in the future. We have just kicked off again the Inland gasfield, which is near Nova Scotia. That gasfield is promising as well, because gas prices are becoming interesting and from there you can bring the gas straight into the United

Ron Elliott (45) is Mammoet's Site Manager at the Hibernia project. He makes sure that everything is going according to plan, having regular meetings with the client, giving down the requirements to the supervisors and then making sure that everything is going ahead on time.
Mammoet Mail's first question: what is so special about this job, considering the fact that it needed more than a year and a half preparation? Elliott explains: "We are not only driving the module from the ship onto land, which is a relatively regular operation for Mammoet, we drive the module from a ship onto land and then on another barge as well, all in one go. The technical side of that is reasonably straight forward, but when it comes to setting down the load onto the pier and the shimming, it becomes a little more complicated than normal. There is a lot of ballast control required to make sure that both ship and barge remain level with the pier. The initial tolerances given by the client were plus or minus ten millimeter in any direction and every one of the modules that we set down has been levelled within one or two millimeters. The lateral position has always been better than that and the best we achieved with one of them was within half a millimeter in position."

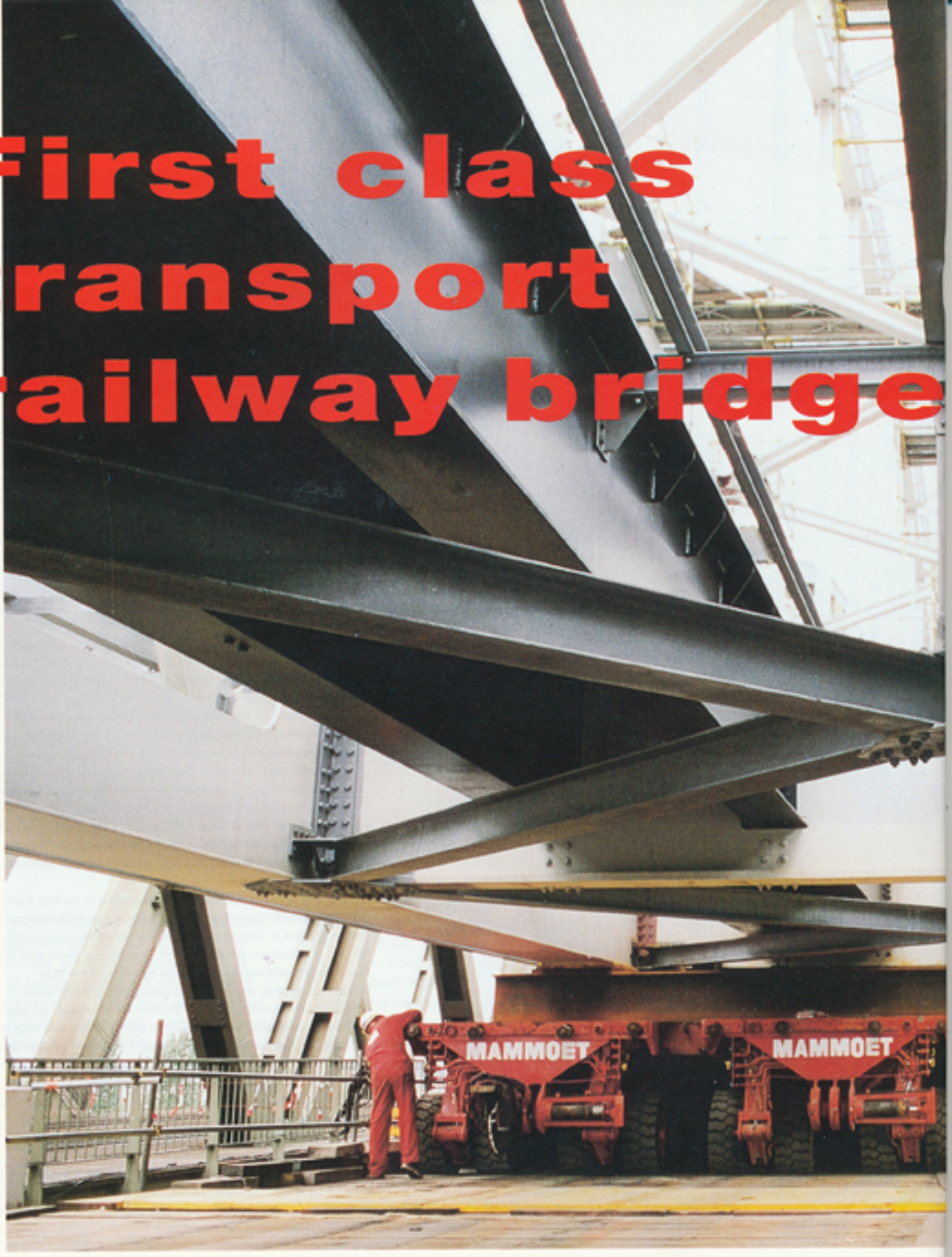
During the interview, people keep busting in to Ron Elliott's relatively small site-office with a wide array of questions. Ranging from a serious technical matter to the availability of Mammoet stickers. He deals with everything there and then. Mammoet Mail resumes with the question how this combined load-in and load-out operation is dealt with communication wise. Elliott: "Before we start off, we have an out of level tolerance. The deck of the Dockwise ship and the deck of the tailbarge must remain within a tolerance of plus or minus one hundred millimeters relative to the pier. The SPMTs can compensate for those differences. The communication is always through the Mammoet team and we have person stationed on the Dockwise ship giving instructions to their pump room. Mammoet has their own independent radio system which is linked with the tail barge. The actual monitoring of the separate levels is taken care of by a laser system, so we have a very precise method which everybody can see, from the engineer in charge to the supervisor standing next to him.

Elliott about the new generation of Self Propelled Modular Trailers: "I have to say that we have not really had any teething problems with them. We had expected it in such an early stage of their delivery, but overall, it has been very pleasant working with them. I must add that the first generation of SMPTs behaved themselves most of the time. The only problem we had, was with a steering fault on one trailer, and that was after the operation had been completed, and we had a small electrical fault, but that could easily be resolved – which is quite good considering we had 284 lines of trailers in total under the modules."



States. So that could mean something for Newfoundland as well; they can continue to build up the offshore industry. For me it is clear: I stake my shares on oil". Van Zante ends with, "it's the past and the future."

First class transport railway bridge



WEESP - In the future the 2,900 tonne railway bridge will support many trains with many more passengers; but on Saturday 2nd September it had its own ticket to ride with heavy transport specialists Mammoet Stoof and Smit Tak.

The railway bridge had been constructed by Mercon Steel Structures and assembled on a nearby sand core in the record time of half a year. The 250 metre long construction had to be positioned alongside the existing bridge in one spectacular move, thus enabling the Nederlandse Spoorwegen (Dutch Railways) to double their track capacity between Weesp and Gaasperdammerweg.

The planning for this joint wheels/barge operation was set on one day only, to prevent the Amsterdam - Rhine canal, the vital shipping artery, from being obstructed for a longer period.
At eight in the morning the starting signal for the operation was given. Two sets SPMTs, one on either side of the bridge, were set in motion. The set at the far end was placed in a fixed position, as the Smit Tak barge on which they stood was used for the very slow movement on that side. The nearby set of wheels were moving along the sand bed in the same pace as the barge. Eventually, these SPMTs entered on to the second barge and the bridge spanned the canal. One can justly say that this was a very complicated load-out situation, involving much ballasting on both barges.

MAMMOET NEWS

The construction of Mammoet Stoof's new building in Breda is well under way. The first piling was placed by Piet van Aert, Head Technical Department in Breda. Building the steel construction has finished, and the wall panels are being installed, of course with the assistance of Mammoet's own telescope cranes. Delivery of the entire complex is expected in December 1995.

First piling was also sunk in the Europoort by Mammoet Ferry Transport's retired director Henk de Man. The newbuilding was made necessary by the gradual expanding of the ferry trailer business. The new accommodation will also be finished at the end of this year and will include the crane department accommodation.

On the occasion of the 25th birthday celebration of Mammoet Transport, in 1996, a new house style will be introduced. The changes are made due to the variety of colour schemes presently in use within the Mammoet group of companies, in order to form a more uniform front towards the client. In Mammoet Mail's next issue you will find an interview with Mammoet's Communication Manager Aad van Leeuwen.

Also connected with the celebration year 1996 is the in-house production of a new company movie with the provisional working title: "Mammoet on the run". In the film the progress of heavy lift over the last 25 years is being depicted, of course visually encountering recent Mammoet projects. Release of the film is expected in the course of 1996.

In Mammoet Mail 25 in the article "Nylon plant to Singapore" a barge name was quoted mistakenly as "Sea Lion". This should be "Sea Hercules" with excuses to the owner. Originally the submersible barge was built for Big lift and baptised "Big Lift 1121"

Provisional agreement Mammoet-Decalift

Mammoet Transport (Netherlands) and Decalift (Italy) are presently engaged in discussions about a joint venture in the field of project linked and heavy lift activities. A provisional agreement has been established for a new joint venture in which Mammoet will have a majority interest. Decalift is specialised in vertical heavy transport and operates on a worldwide basis. Their activities are strongly complementary with the horizontal and vertical heavy lift activities of the Mammoet group of companies. Decalift Italy Spa will autonomously continue its domestic heavy transport operations while all international, non Italian heavy lift business will be brought in to the intended joint venture.
Mammoet Transport will contribute the shares of the existing Mammoet companies, with the exception of Mammoet Ferry Transport, the ferry-trailer operators. This company will not be included in the intended transaction. It is the intension to complete the discussions in the coming months and subsequently establish a joint venture.

Decalift's AK1200 performing a lift in Florida, U.S.A.

Batavia launch

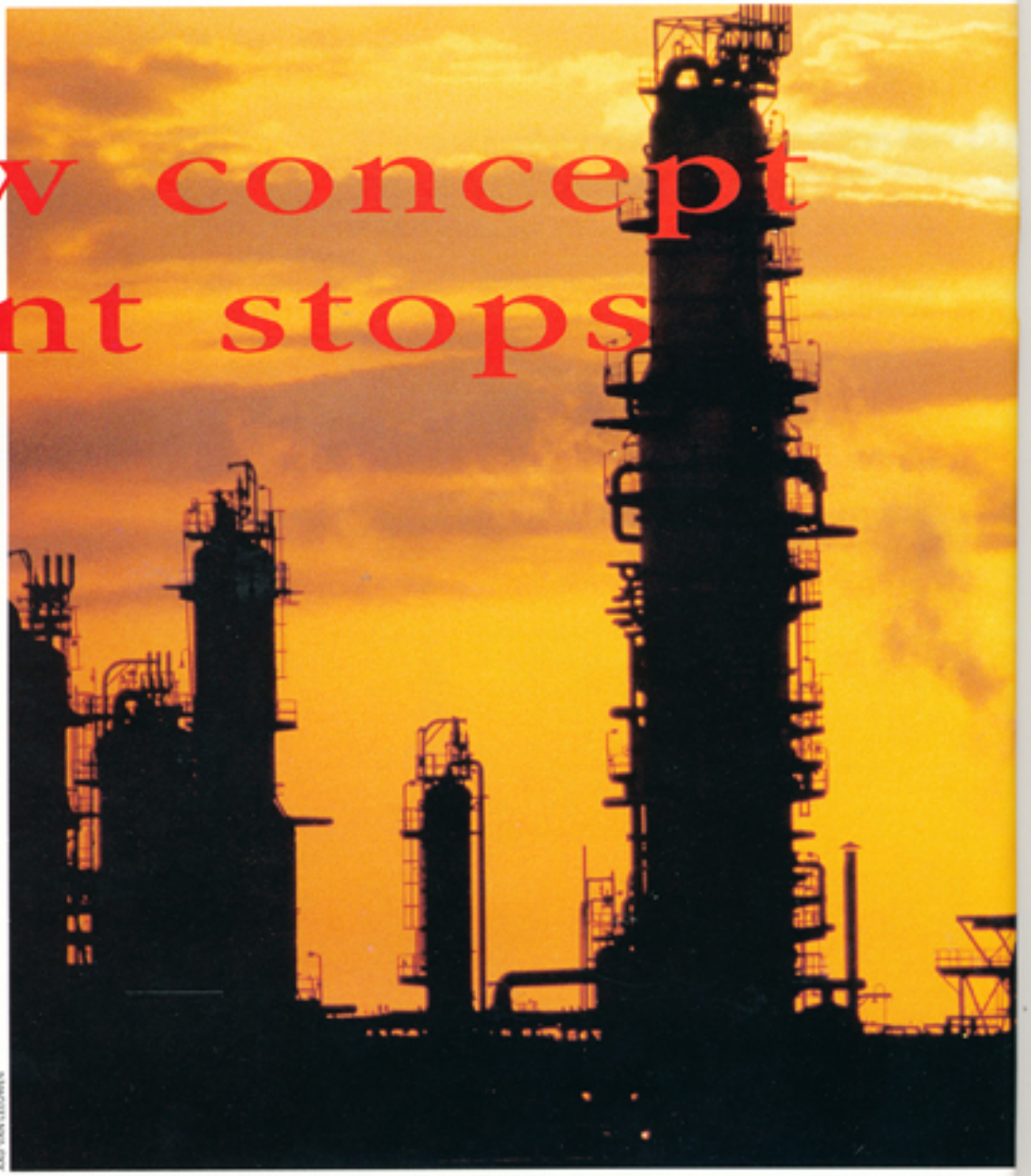
Old times were revived during the load-out of the replica of an East Indiaman in Spring this year. The "Batavia" had been meticulously rebuilt after the original vessel which had sailed to the Far East for the V.O.C. (United East-India Company) in the seventeenth Century. The new "Batavia" was christened before its launch by Queen Beatrix of the Netherlands. Mammoet Stoof's platform trailers took the ship for a short, smooth ride on to the Eerland barge, which took the "Batavia" under tow to a drydock in Amsterdam for its actual launching. The original vessel had met with a disastrous end on the rocks of western Australia during her maiden voyage to the East. The replica, however, was safely put in to the water and returned to the yard for the final building

V.O.C. shipbuilder Willem Vos takes a break during the load-out.

Sail '95

On the occasion of Sail on 10 August 1995 Mammoet Transport held a party at their premises at the Amsterdam Port Building. Numerous (tall) ships passed the building, from where the Mammoet relations had an excellent view on the spectacle. Every five years Amsterdam is visited by the cream of tall ships, this year including as highlight the East Indiaman "Batavia". In the picture, however, the other East Indiaman "Amsterdam", which is normally moored behind the Amsterdam Nautical museum.

New concept plant stops



The ever-recurring issue at the SBU Cranes", says Verhoef, "is that Mammoet is immediately associated in the market with the concepts of large, heavy and exceptional. Nothing can be further from the truth, as a major part of our turnover is earned from the rental of cranes under 100 tonnes and the availability of people and equipment. Our main strength is that we can mobilize a fair quantity of equipment and skilled personnel in a very short time. Earlier this year something similar occurred when we worked on plant stops within the Netherlands at the sites of ICI, Shell and DOW all at the same time."

For our activities we consider the chemical, petrochemical and process industries to be our strategic market segment. Remarkably so, price is not the first reason within these markets to rent cranes. Safety is the overruling factor, followed by know-how and professionality. Only then does price follow. To be able to serve the chemical, the petrochemical and the process industries in the best way possible, we have developed a concept containing various aspects, every one of them with their own individual specific advantages for our clients. We call this the Mammoet plant stop concept."

Advantages

"First and foremost, the manner in which we like to communicate with our clients is important. We prefer to cooperate on the basis of partnership contracts. Within these long-term agreements several advantages appear to materialise. This is due, for instance, to our long-term presence on the client's premises, so that we acquire much knowledge about the plant in question. Thus, the client no longer has to explain where he likes us to go and what equipment we need. Furthermore, we become familiar with all the site's safety regulations and rules. We more or less become at one with the client, notice what it is he needs and work out what is to be done in a most efficient manner. Instead of mobilising the most cranes as long as possible, cranes are used as briefly and efficiently as practicable. For who else can decide better than the crane contractor himself on efficiency. After all, he is the specialist. For that same reason it is very important that we are involved in a plant stop at the earliest stage. In the crane business there is a well-known saying that "distance costs money". The closer we can position our cranes to the workspot,

"Mammoet Stoof's Strategic Business Unit (SBU) Cranes have developed a special plant stop concept for the chemical, petrochemical and process industry," says Sales Manager Peter Verhoef. This so-called Mammoet concept, which consists of a lumpsum agreement based on a partnership contract, offers the client a large range of advantages.

the cheaper the mobilisation of our material will be. If a greater distance must be bridged, heavier and therefore more expensive equipment will have to be used. To prevent this from happening we like to be involved in the preparation phase of a plant stop. For plant stops we are on site some months before the plant goes down to make an inventory of the task and the equipment we will use. Then we work the details in to a three-dimensional planning scheme in order to prepare the stop as efficiently as possible."

Unique

"What really is unique in the Mammoet concept", says Verhoef, "is that we can take on plant stops as complete projects on a lumpsum basis. This has various advantages. From the moment a client is prepared and able to describe about 70 per cent of all lifting requirements for its plant stop, it is possible for us to calculate the lumpsum for the complete project. The mechanical contractor can then offer on basis of his own work.
In the Netherlands we have our own branch on the site of various (petro)chemical companies, from where all affairs can be co-ordinated. The necessary engineering is usually taken care of in our head office in Breda. For those clients with whom we have not yet established a partnership contract and our own branch, but with whom we have contracted a plant stop, we arrange to set up shop on site. Our project foreman is then in a position to discuss the work in an early stage with the mechanical contractor's foreman. This enables good planning, which is essential for plant stops.

By the way, it turns out that our people at the stops become ever more involved in how the equipment can be used as efficiently as possible. Besides they train enthusiastically on safety and working with breathing apparatus. Nor does working in shifts create any problem to conclude a stop in the quickest time possible. In short, we have everything available in equipment and people to carry out plant stops fast and efficiently. I believe that we may say that our partnership contracts and the possibilities to carry out plant stops on a lumpsum basis in accord with the Mammoet concept, shows our close involvement with the realisation of this kind of specialist work", Verhoef closes his argument.

Safety tipped the scale

"For the last plant stop of our MDI plant in the Europoort Botlek area, we consciously chose to do business direct with crane contractor Mammoet," claims Central Maintenance Group Manager M. J. van der Meer of chemical company ICI Holland. In this choice the safety aspects and the shut down's complexity were the most important.

"ICI's MDI plant near Rotterdam produces some 80,000 tonnes of components for the production of polyurethane," says Van der Meer. "In this field ICI is one of the major producers in the world. Once every two years we have a large plant stop that takes about four weeks. During that stop maintenance as well as inspection work is done. That period is also used to build in modifications and to carry out new building activities. The latter works we call debottlenecking. During the last plant stop in May one of the most important activities was to change the cold system with its accompanying processors. Because of this modification, the system can now work on ICI's "Klea" - 134A instead of CFK. When changing such a cooling agent, however, the complete system, including the compressor, must be adapted and fitted with new equipment. Other jobs that we did was the installation of a new reactor. That really was a debottlenecking project. Furthermore, we had to exchange a complete scrubber pipeline system. Here the problem was that the 12-inch pipes were fitted tightly against a concrete ceiling. It took a major effort to replace the pipes, which brought on the necessity to work with breathing apparatus. In short, there were many odds and ends to be solved to bring this plant stop to a good close."

Philosophy

"Once we have a good view of the scale of the work, which in this case was about half a year in advance," the ICI Maintenance Manager continues, "we start thinking about the contract philosophy. We consider whether or not we wish to appoint a contractor who looks for a crane contractor himself, or if we decide to work with a variety of companies all at the same time. This time we chose the latter option and Mammoet was one of the companies with which we worked directly. Even though Mammoet has been the resident contractor for the last two years, it was not at all a foregone conclusion that they would also be the company to run this plant stop. We have no obligation to hire our resident contractor for large plant stops. We have the liberty to survey the market in case of large projects and work over a certain value. We made a well-balanced choice. The most important reason to make us decide for Mammoet after all was the fact that this company was the best qualifier with regard to safety for ICI. The safety aspects as well as the plant stop's complexity tipped the scale. We were struck by the fact that Mammoet even gives their riggers special training, which pays much attention to safe working. The choice is also influenced by the price, but safety is all. Furthermore, we have noticed in the past two years that Mammoet is very actively involved in safety. They prepare good safety and lifting plans, clear crane location plans, and if something goes wrong, the matter is immediately investigated and extensively reported on. Safety evaluations are being dealt with in a professional manner. These are all very important issues to us."

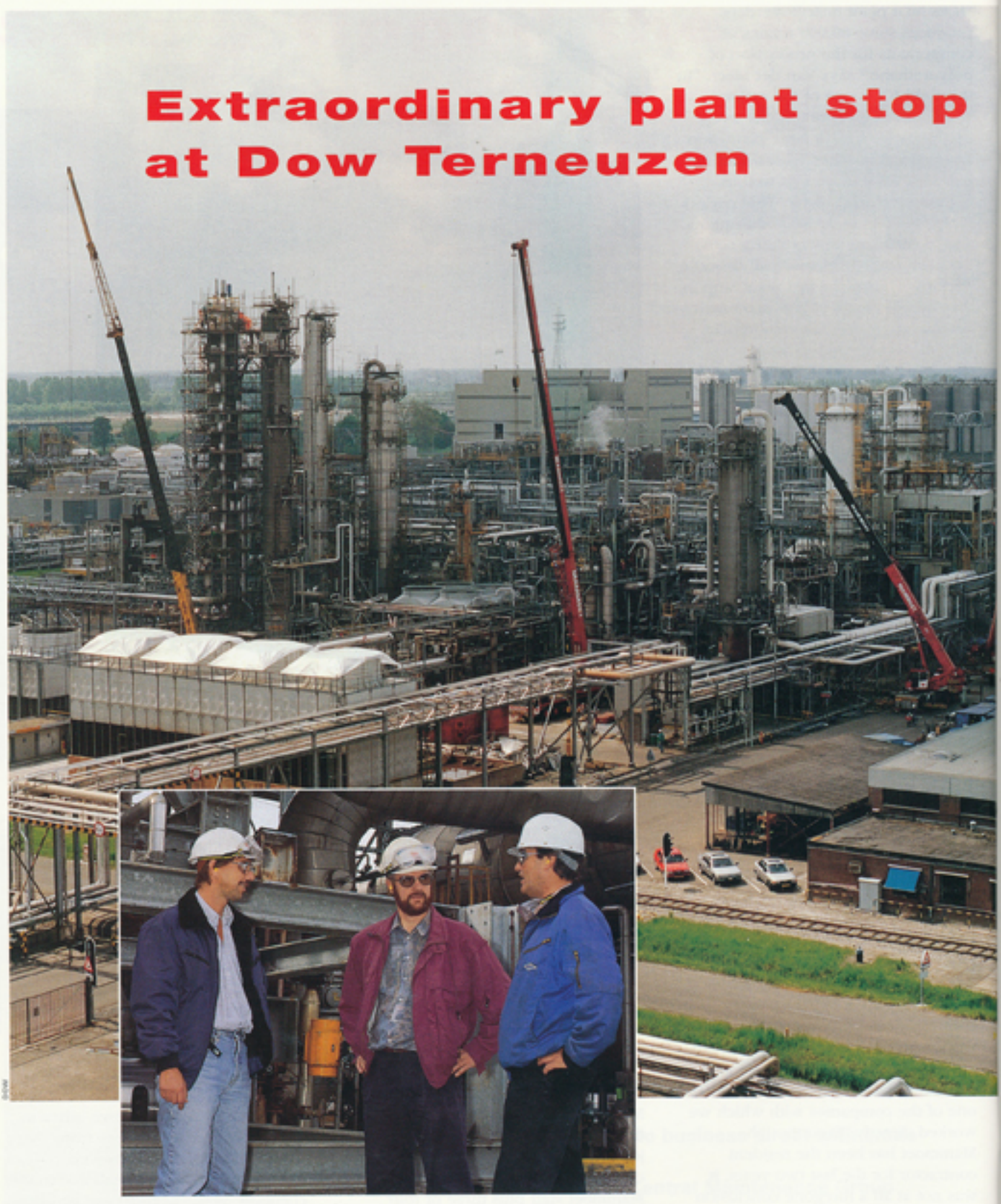
Piet Nederveen, Branch Manager of Mammoet's office in Europoort, states that two shifts per day were on the job during the MDI stop. Every shift counted on average eight to ten Mammoet staff plus three or four mobile cranes.

The accolade

With respect to Mammoet's residential contract with ICI Van der Meer explains, "After the first year the agreement was automatically renewed with another year, and since Mammoet has been able to convince us of their thorough working practice, especially where safety is concerned, we have renewed the agreement again, now for a period of three years. This is rather remarkable, for ICI is not in the habit of closing multiple-year contracts with its contractors. It is a fact that a three-year contract guarantees a certain measure of continuity for us. For Mammoet this means an accolade for the work they have been performing so professionally," according to the Maintenance Manager.
Mammoet Branch Manager Piet Nederveen fully agrees. "We do our utmost to train our people well and keep our material up to date. Nevertheless, ICI has put us thoroughly through the mill and that is what they will keep doing, which is good, for it keeps us on our toes."

Mammoet Stoof has its own office in Europoort near Rotterdam, from where, like a spider in its web, professional service is rendered to the chemical, petrochemical and process industries throughout the region. Small and large projects, among which are plant stops, belong to the daily business of Branch Manager Piet Nederveen and his enthusiastic team.

Extraordinary plant stop at Dow Terneuzen



Mammoet Stoof's personnel and equipment have played an important part during an extraordinary plant stop at DOW Terneuzen. A plant stop that could be completed within record time because of meticulous planning.

"Nowadays, the catalyst in the reactors of our ethylene-oxide plants lives much longer than before," says Maintenance Supervisor H.J.A. Lippens of DOW Terneuzen. "Therefore, we have plant stops every four years instead of every two. The catalyst changes ethylene into ethylene oxide. This process takes place in four large reactors. After some four years uninterrupted processing, we recently carried out a major plant stop. In that stop, the reactors' top as well as bottom covers were removed. These covers weigh between eight and ten tonnes. The crunch of the matter was that we needed cranes with a wide outreach. We only have one road alongside the plant and lifting had to take place from there. Furthermore, we had to open up other systems during the stop, for instance heat exchangers, so that on busy days we had eight or more cranes working. Since some covers had to be removed from under the vessel, this plant stop took more than just lifting. A great variety of techniques were used to move the heavy parts. It was extraordinary that all four reactors were opened at the same time and because of the efforts of extra cranes and people could be closed within a few days. Everything went exactly according to plan. We stopped the plant according to plan, carried out the complete plant stop within the scheduled 3.5 weeks and started the plant again on the designated day.

There is no doubt that the plant stop was well-prepared. Some four months earlier we started to discuss and plan with Mammoet and this was why we could contract the necessary cranes and personnel well in time. Two months previous to the stop everything had to be finalized so that all could sufficiently prepare for it."

New system

According to Mammoet's Branch Manager Jan Karreman and planner Peter Blokpoel, this stop saw a new planning system in use for the first time. Blokpoel comments: "With the new system we can dedicate cranes and people very accurately for the required time. We can ascertain precisely what material will be needed and for how long. If we foresee peaks we are in time to take action and spread certain activities. That is why it is so very important, especially with plant stops, that we start planning as early as possible. Furthermore, I think that we will be able to work our cranes much more effectively with our new planning system. The equipment can be much better used against fewer costs."

"Mammoet Stoof's strength," adds Karreman, "is that the company works throughout the country. This has the advantage that thirty five to forty cranes can easily be mobilised when a plant has a top day. That means that the offices in Breda, Europoort, Sittard and Antwerp send their cranes to us. On the other hand it can also occur that we send cranes to plants of Shell, DSM and ICI. At the last plant stop here on the DOW site our cranes formed the essential part of the job. Despite that, we also mobilized a full range of other techniques to bring the job to a good end. Which proves again that the simultaneous execution of various disciplines need good communication and planning."

Partnership

"Here at DOW Terneuzen we work with our contractors, one of whom is Mammoet, in a system of supplier partnership," Maintenance Supervisor Lippens continues. "The system's goal is to jointly increase the safety and quality level as much as possible. During the last plant stop we observed that the safety and quality levels have never been higher. We managed to work in accordance with the norms we expected to reach in the year 2000. We have not encountered a single accident.

At the plant stop we use the 'whole job system'. This means that we oblige the main contractor to work with the subcontractor with whom we struck a supplier partnership agreement. We pay the subcontractors directly. On the site we have various contractors with their own offices, such as piping contractors, E&I contractors, isolation contractors and crane contractors. It is very important for us that we can ask our contractors to supply a high service level when we really need it. Furthermore, we must be able to rely on them immediately in case of emergency. Then it is convenient if the right people are already present on the site. I for myself am very pleased about our system of supplier partnership and Mammoet Stoof has proven to be able to work with this system to our utmost satisfaction."

Turnkey lifting project at DSM

For the latest plant stop of the NAK-3 complex of DSM in Geleen, The Netherlands, the company, one of the chemical giants, awarded Mammoet Stoof with the complete lifting work. Branch Manager Huub van Mierlo of Mammoet's office in Sittard and Project Manager Pedro Gonzalez-Serrano talk about the ins and outs of this impressive plant stop.

"Mammoet Stoof has been working in the South of the Netherlands, as well as in the adjoining regions in Belgium and Germany for over twenty years," says Huub van Mierlo. "Seven years ago Mammoet decided to open an office in Sittard, in the province of Limburg. Today, 15 people work here. And since we are still growing this number will increase.
We work for companies of all sizes. Especially in the chemical industry we talce on much business.
One of our major clients in this sector

is DSM. This chemical company is present in South-Limburg with twenty-six separate business units. Only few crane companies qualify to work for DSM. Mammoet is one of them. Therefore, we are regularly approached by one of the company's business units.
In November last year we carried out a very special assignment for DSM in the shortest possible time. We were asked to take care of all the lifting, rigging and transport work for the plant stop of the NAK-3 complex near Geleen."

Stop points

Mammoet's Project Manager for the NAK-3 plant stop was Pedro Gonzalez-Serrano. With much enthusiasm he relates of "his" project. "More than six months before the stop was to start, we began with the jobpreparations. That required quite a lot of work as there were no less than 800 stop points for which our assistance was necessary. Furthermore, it was out of the ordinary that the NAK-3 would have to be dealt with in parts. The ethylene production had to continue as if nothing happened. That took some improvisation of both our people and DSM's production team. When necessary, certain parts of the plant would be stopped, so that we could work there. Over the whole stop period the complete plant was out of operation for only a very short time. Since DSM had contracted all the lifting work with Mammoet, we could work extremely efficiently. If more lifting companies are contracted in a project, it happens quite often that one has to wait for the other. Working with more companies also requires more lifting co-ordinators. This was not necessary now, with the result that we did not have to claim any waiting hours. It also turned out that with this one-company system our people became much more involved in the project and thus became more adept to anticipate on the work to be done. At the peaks of the plant stop we worked with twenty-seven cranes and fifty-three riggers on the site. Everything went so well that we could finalise the stop within four instead of the planned four and a half weeks. For DSM this was a reason to thank all employees personally."

Lumpsum

Huub van Mierlo continues: "The NAK-3 plant stop was the largest contract for DSM we have had until now. Furthermore, it was very special that we could contract the lifting work on lumpsum basis. This was a novelty for both parties. Presently, offering on lumpsum basis for jobs like these seem to become a trend."
"Another factor worth mentioning was that in this plant stop we were able to give to some extent our own input and ideas," Gonzalez-Serrano concludes. "One of these ideas was to use a crawler crane with luffing fly jib instead of a range of hydraulic cranes. The advantage of this input was that costs could be reduced and the equipment could be used to their best abilities." Meanwhile, the people in Sittard are hard at work to prepare a next offer for a plant stop on lumpsum basis.

PAS

Mammoet in Focus

The Tjeldbergodden project

NORWAY - With the shipment, transport and erection of a 70 metre coldbox Mammoet Transport started the integrated transport operation for the Tjeldbergodden project. The Methanol plant in construction is located 180 kilometres southwest of Trondheim and will be a centre of construction activities for the coming years. Mammoet will provide the integrated heavy lift services for all the special and outsized machinery such as columns, piperacks, modules etc. which are manufactured in Norway, the U.K., Spain and Italy. In a continuous transport and lifting programme Mammoet will be involved in this project until the end of this year.

Boiler in Amsterdam

AMSTERDAM - M.s. "Enlivener" loaded a 350 tonne boiler measuring 21 x4.6 x 14.9 metres in the port of Amsterdam. The cargo also included six pieces boiler parts and amounted up to 4400 cbm refinery equipment. The cargo was destined for Map ta Phut and handled on both sides with ship's own gear. Once in Thailand, sister company Walter Wright Mammoet (Thailand) installed the heavy pieces on to their foundation at the refinery.

Shipment for NAM

Early October Mammoet's m.v. "Project Europa" arrived in the port of Amsterdam to discharge various heavy pieces for the NAM project in Grijpskerk, the Netherlands. The cargo consisted of 6 absorbers of 321 tonnes each as well as 2 reactors and 8 coolers.

The m.v. "Project Europa" first discharged the absorbers in to barges and followed with the less heavy cargoes. Through transportation involved barging over the IJsselmeer with subsequent land transportation to Grijpskerk. The project entails a major underground storage facility for natural gas for the Dutch National Oil company NAM.

Rayon industrial park

MAP TA PHUT - Mammoet Shipping's "Happy Buccaneer" delivered a 416 tonne distillation tower for a petrochemical plant in Rayong, Thailand. The Rayong area is part of Thailand's expanding petro-chemical industry, in the first stage aiming to meet the growing demands of the home market.

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