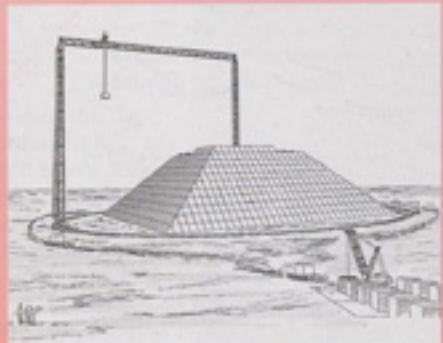
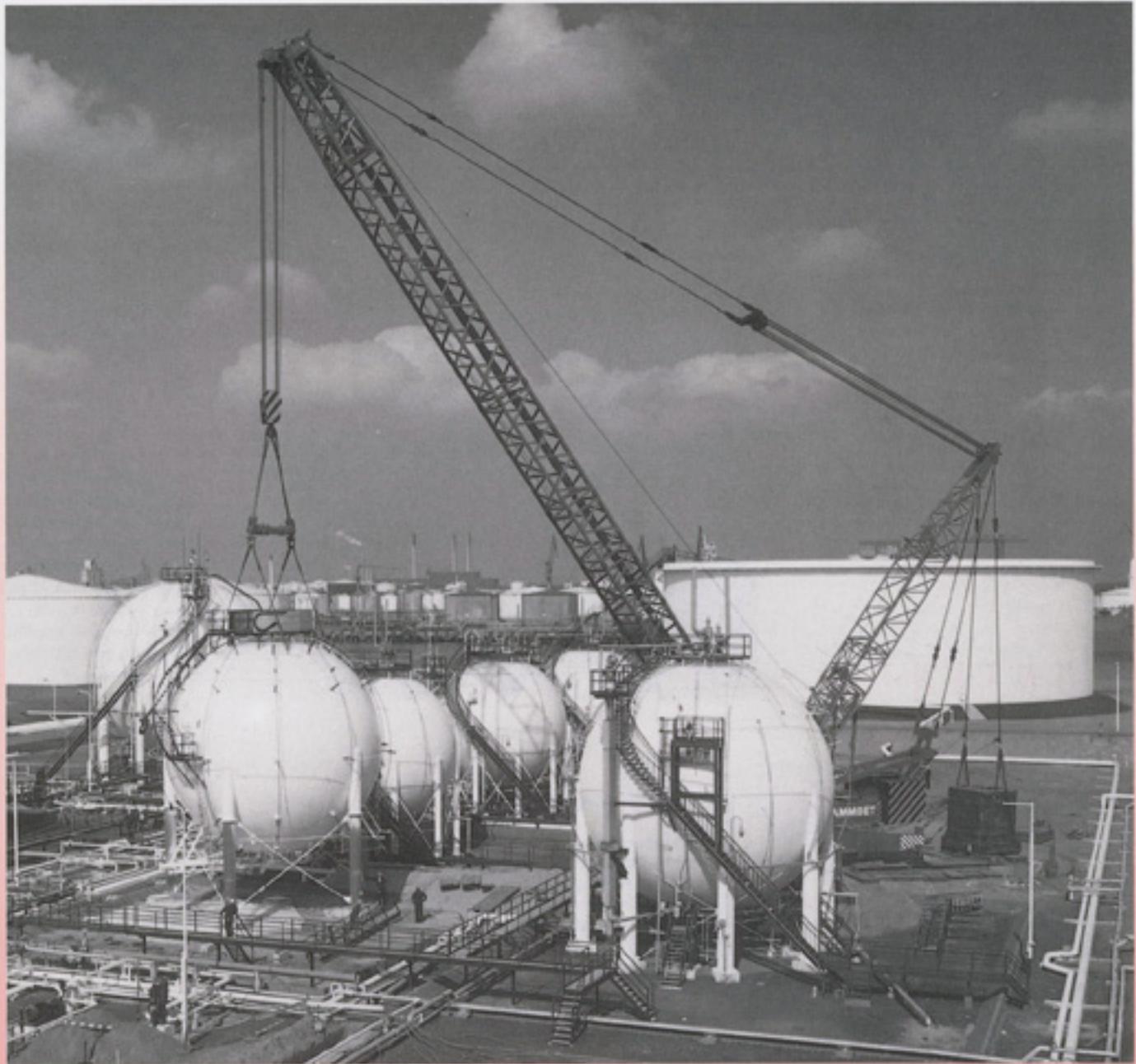


MAMMOET mail 17

House magazine of
Mammoet Transport B.V.

DECEMBER '90



4 Heavy Transport:
past and present



9 News from
Alatas Big Lift



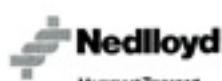
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Van de redacteur

In deze nieuwe uitgave van Mammoet Mail meer aandacht voor de man en vrouw in de Mammoet organisatie. Mensen die vaak uw contactpersoon zijn en die in hoge mate het gezicht van het bedrijf bepalen.

In een aantal interviews vertellen zij waarmee ze bezig zijn en hoe ze tegen bepaalde zaken aankijken. Hieruit blijkt eens te meer hoe belangrijk de menselijke factor is in de uitvoering van uw transportopdracht; alle bijzondere transporttechnieken ten spijt.

Over bijzondere transporttechnieken gesproken: een "lichter" artikel behandelt het bijzondere vervoer in de oudheid, met als voorbeeld de piramidebouw in Egypte, en een interview met een Mammoet ingenieur waaruit moet blijken hoe we daar nu tegenaan kijken. Transport in de sleutelrol, niet alleen van vandaag, maar ook van gisteren.

Ondanks de crisis in de Golf een aantal interessante job-reports van Alatas Big Lift in Saoedi-Arabië. Opmerkelijk feit in het verhaal is dat er niet alleen modulaire installaties worden geïmporteerd, maar ook geëxporteerd. In beide gevallen zorgt Alatas Big Lift voor veilig vervoer.

Tot slot: de bekende Mammoet kalender wordt nu alweer voor het vierde jaar uitgegeven, in een enigszins gewijzigde opzet: 1 pagina per maand en meer kleurenplaten van Mammoet activiteiten.

De klanten die Mammoet Mail volgens het adressenbestand ontvangen, krijgen deze kalender bijgevoegd.

Veel leesplezier.

From the editor

In this new issue of Mammoet Mail we pay more attention to the man and woman within the Mammoet organisation. The people who are quite often your contact and who largely make the company's appearance.

In a number of interviews they explain what they are working on and what their view is on various subjects, which proves once again the importance of the human aspect in the realisation of your transport order, despite the grand transport techniques.

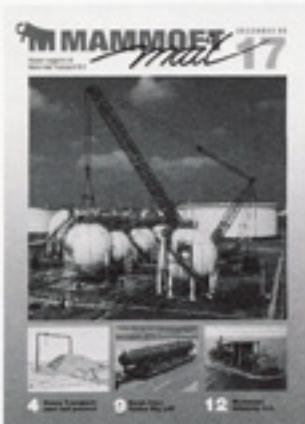
Speaking about transport techniques, a "lighter" article deals with special transport in ancient times, with the building of pyramids in Egypt as an example and an interview with one of Mammoet's engineers shows the change in engineering and transport techniques. Transport in the key role, not only today but also yesterday.

Despite the Gulf crisis we have some interesting job reports from Alatas Big Lift in Saudi Arabia.

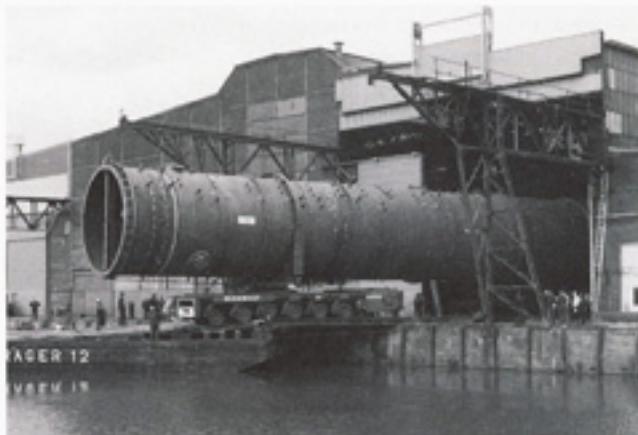
It is interesting to note in the story that modular installations are not only imported but also exported. In both cases Alatas Big Lift insures the safe transportation.

Finally: the well-known Mammoet calendar will be issued for the fourth year running, in a slightly altered format: 1 page per month and more colour pictures of Mammoet activities. The clients who receive Mammoet Mail according to the mailing list will find this calendar enclosed.

We wish you much pleasure reading.



Last September Mammoet Stoof Breda moved a 100 t ball-shaped container from Willebroek in Belgium to Rotterdam. There, the 13,50 m high structure was lifted onto foundation by a 400 t lattice boom crane in superlift configuration.



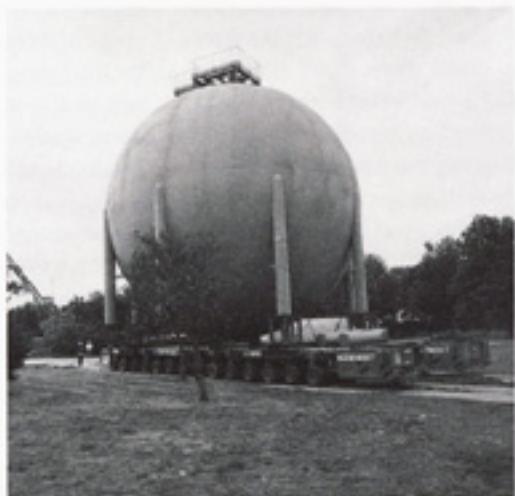
For European Container Terminus (E.C.T.) in Europoort a complete container crane was moved from one location to another. Even the crossing of a railway link could be carried out without problems.



A giant steel column was loaded-out at "Machine Fabriek Breda" in Breda, where a 45° turn directly outside the construction hall had to be negotiated to arrive safely on the barge.

SPMT IN PICTURES

The variety of cargoes moved by Mammoet's Self-Propelled Modular Transporters is far greater than one might expect. Because of the SPMTs' flexibility and adaptability it has become the favourite multi-purpose heavy-lift transporter.



For Hydro Agri Sluiskil B.V. a 270 tonne ball-shaped container was delivered to their fertilizer plant in The Netherlands. The sphere will be used for storage of liquid carbondioxide.

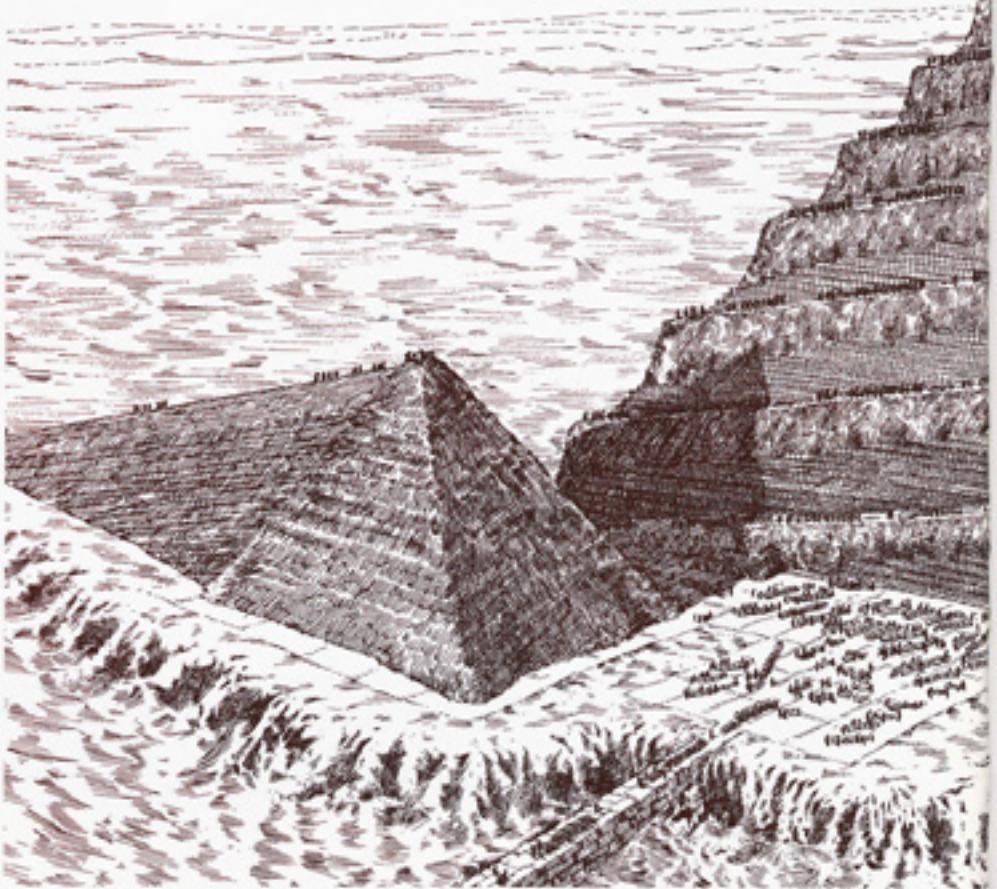


At the port of Antwerp, a damaged bridge had to be temporarily removed for repairs and Mammoet's SPMTs made the necessary link to the construction hall.

The pyramid, the most famous of all monuments, still puzzles us thousands of years after they were built. How did the wonderful kings' graves arise in the middle of the desert? In what way did the Egyptians transport the numerous blocks of granite and sandstone? And how would we see to the logistics of the building blocks today?

The civilisation of ancient Egypt has not left us any pictures or texts in which has been written down how the enormous grave monuments for the farao's were built. The only theories that exist about the construction, have been construed through archaeology. However, it is quite sure that raising a pyramid must have been an impressive project that doesn't have its match in the history of mankind. For some pyramids, building took more than 30 years. Over a hundred thousand stonecutters, masons, overseers, mortar makers, carpenters and bearers were involved in the creation of the most important monument the farao built during his life. A creation from a world removed thousands of years from ours.

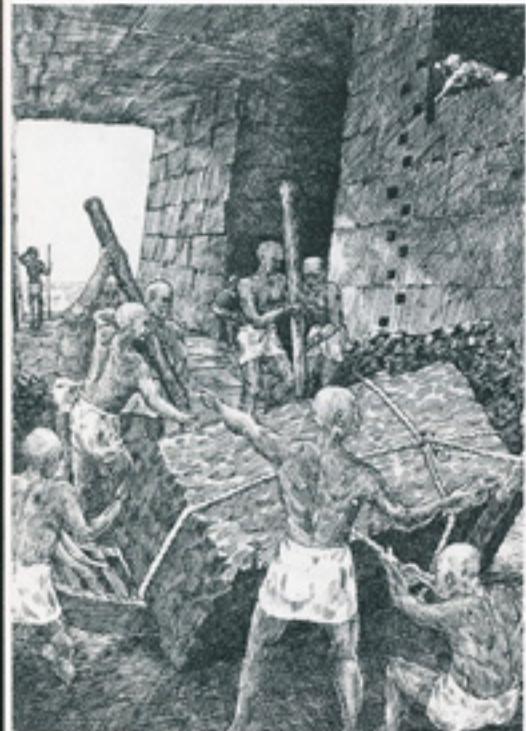
The prefabric



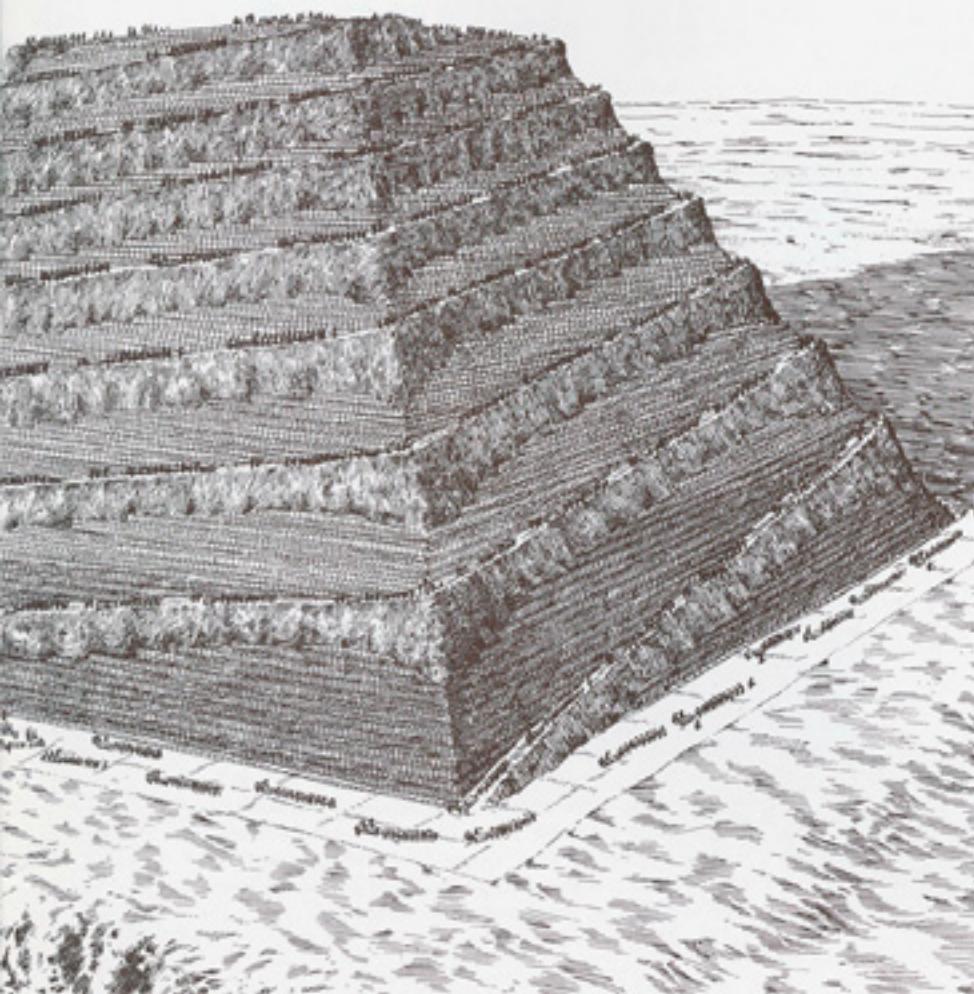
Two million stones.

One of the most likely theories that was developed on the building of pyramids, assumes that the giant blocks of granite and sandstone of which the oldest and largest of the world's monuments consists, were delivered from quarries along the River Nile. The stone blocks from the quarries were layed down on skids with the help of wooden levers and brought to the already awaiting ships along the banks of the river. To prevent the skids' gliders to sink away in the sand by the weight of the stone block, an ascending path of treetrunks was layed out to the river Nile, the loaded ships then sailed to an unloading quay where the blocks would be pulled by men and oxen, again via a lifting and skid system, to the building site. The stones on the first layer could be positioned quite easily. The other

123 layers of the pyramid, more than 2 million stones, had to be pulled up to the top of the underlying layer, before they could be shifted into place. This was solved by building slopes of rubble and Nile sludge from the four corners of the pyramid. Three of those slopes were destined for the stones to be moved up and one for the skids and people to descend again. The slopes ascended gradually against the sides of the pyramid, resting on the unfinished steps of the covering. As soon as the slopes were ready, teams of workmen started to pull up the blocks, some weighing 7.5 tonnes, to their destination in the following layer. Often some 20 men pulled the skid with its heavy load, while others pushed with levers at the back or kept the skid way moist to reduce friction of the gliders.



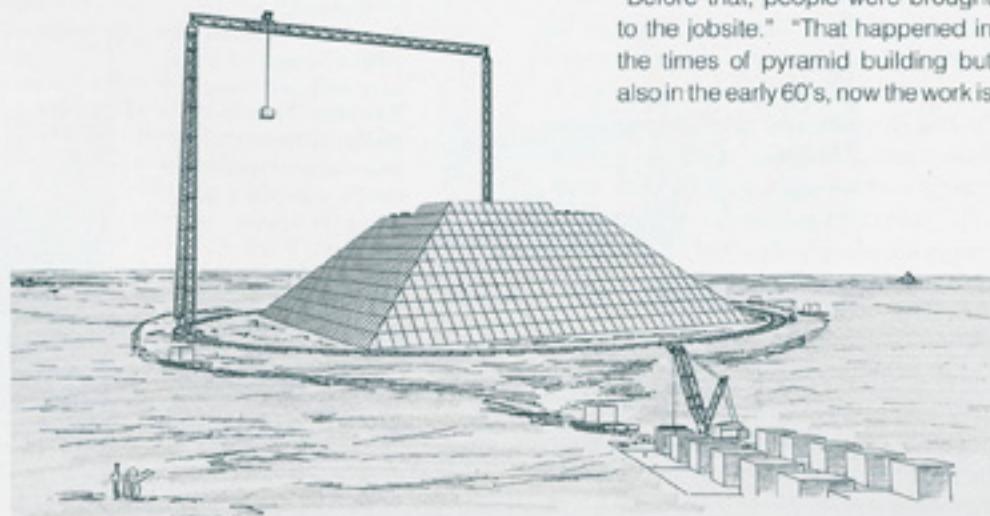
Modular Pyramid



Under the dust of time

Once the pyramid had reached a height of some 120 metres, there was not enough wallspace left to support all four slopes. From then on only two slopes were used, one for bringing the blocks up and the other to carry the empty skids down. Finally the pyramid was "crowned" with one enormous block in the shape of a small pyramid which was layed down on the top layer of blocks.

Then the slopes were taken down. After removing some 10 metres of rubble a team came up to build wooden scaffolds around the now cleared few steps of the covering. On the top scaffold floor, workmen scrubbed the top stone with polishing stones and powder until it was a smooth shiny spire. Beneath them, stone masons hacked away the steps of the covering with chisels, whereafter that part was also equalized



and polished. On their way to finish a odd mathematical body with corridors, shafts, a grave chamber and trap-doors that often remained secret until graverobbers forced entrance or archaeologists discovered them under the dust of times.

Modular building

Building pyramids will never be surpassed in size. Never again will so many people be mobilized for the creation of a monument. It is also very unlikely that pyramids will be built, but should it ever happen again, it will not be in the way it was done 3500 years ago. Not a hundred thousand stone blocks, but prefabricated pieces of the pyramids will be delivered from various parts of the world in modular form. "That is a development that has only been used for the last 25 years", Mr Jan Gommers, Manager Project Department of Mammoet Stoof, expicates. "Before that, people were brought to the jobsite." "That happened in the times of pyramid building but also in the early 60's, now the work is

brought to where the people and machines are." "In other words, try and build the modules as complete as possible where wages are favourable and good machinery is available, and then transport the parts to their final destination." "This is a development derived from the offshore industry, the only difficulty with modular building is whether logically and technically it is still possible to bring the ever larger segments to their location." "Up until now the heavy transport sector has been able to follow the developments quite accurately. Our sector has been evolving very well in the last 15 to 20 years."

So much so that building an imaginary pyramid would not present us with any logistic problems nowadays. If we aim for a high quality product, the modules for a modern issue of the old Egyptian symbol would be manufactured in Norway or Sweden. The 100 or so prefabricated blocks of granite would have to be finished in the marble quarries of Italy and finally they would have to be delivered to Egypt. Mr Gommers: "The blocks of some 5000 tonnes would be shipped in various seavoyages with Mammoet Shipping from Norway to Italy." "From there, our Self Propelled Modular Transporters (SPMTs) could move the blocks to a marble quarry where with the right machinery, the marble plating would be attached." "Once the plates were fitted, a selfpropelled vessel with minimal depth, for example the m.s. "Sunrise" of Mammoet Shipping, would sail up the river Nile with the segments." "From the river the SPMTs could then carry the modules over a specially constructed road, quite like the one built for the Red Dog Project in Alaska, to the building site."

Were in ancient times tens of thousands of people were assembled to construct the king's grave, the blocks would now be moved in by trailers, built up on a concrete foundation with a special lifting construction and the inside of the pyramid would be finished off with concrete. "A typical example of the way transport has developed in the last 25 years", Mr Gommers stresses once again. "Modular built, fetching the materials where the quality is best, shipping, having them worked at where the people are best fitted for the job and thereafter transporting and making it a lifting job."

But still, an Egyptian pyramid of Norwegian granite and Italian marble, being built on the West bank of the River Nile like a building kit in no more than one-and-a-half to two years; the faraos would turn in their grave chambers.

MAMMOET SHIPPING IN PICTURES



Mammoth Transport France shipped 3 cable drums with a diameter of 13m and each weighing 380 tonnes. The "Starman Asia" loaded the cable drums in Calais by means of her own gear and set sail for Anchorage in Alaska.

For Babcock & Wilcox of Cambridge, Ontario a steamdrum with a length of 25 m was shipped from Toronto, Canada to Beilungang in China. The column was delivered alongside the "Project Arabia" by Babcock & Wilcox' railcar for special transport. Then the 320 tonne object was lifted on board by the vessel's own gear. The drum is destined for a power plant.





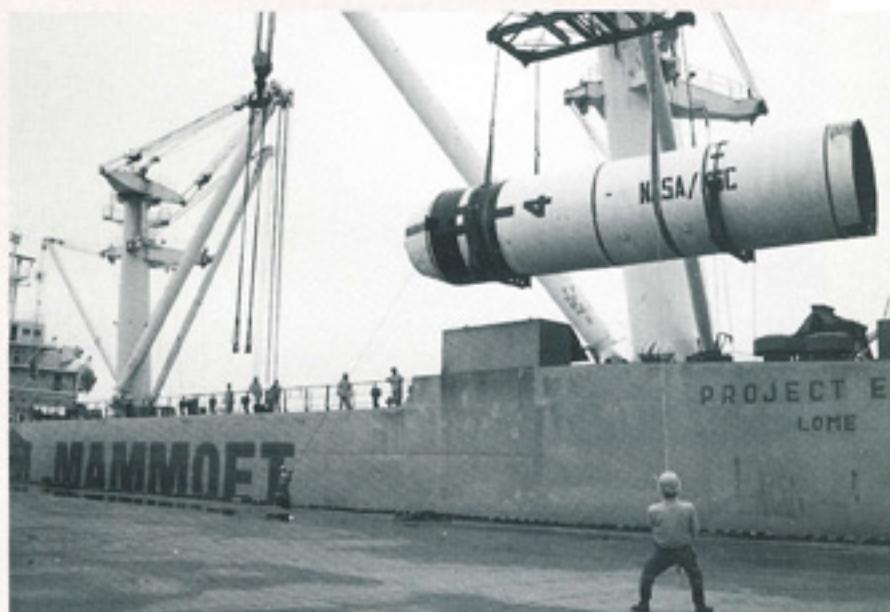
The m.s. "Project Orient" loaded 2 production separators and 2 condensate water stripping columns in the port of Rotterdam with weights ranging from 114 to 157 tonnes. They were destined for Ulsan in Korea to be part of the Goodwin "A" project.

Space exploration equipment to Japan

Mammoet Shipping's heavy lift vessel "Project Europa" shipped 50 items of space exploration equipment from North America to Japan.

The cargo of rockets, satellites, space units, lunar vehicles and other used space equipment, with a total weight of approx. 3,000 tonnes, came from the International Aeronautic and Space Administration, better known as NASA.

Discharge took place with the ship's own lifting gear at Shin-Narashino Port, where it will be stored temporarily. Final destination is a yet to be built space museum, where the purchased space exploration equipment with a value of 10 billion yen will be exhibited.



Mammoet Shipping's "Project Arabia" made the front cover of "Canadian Sailings" when unloading a 337 tonne transformer at the port of Toronto in Canada. The weekly guide of Shipping Services reported as follows:

"A 337-tonne transformer for Ontario Hydro was the centre of attention when it was unloaded from the Mammoet Shipping vessel Project Arabia in the Port of Toronto recently. Everyone involved in the shipment was on hand for the delicate unloading including Mammoet Shipping officials, Redburn Inc., agents for the line, Toronto Harbour Commission representatives and those of Ontario Hydro. The transformer was loaded on

a special Ontario Hydro transformer car, called the Schnabel car, which is uniquely designed to handle this type of cargo. The car splits in two, and then is able to hook on to each end of the transformer, an Ontario Hydro official explained. The transformer becomes part of the car.

The Schnabel car is controlled at each end so that the transformer is able to shift in order to keep an even weight distribution while travelling. This is especially important on curves. The rail car was 121 feet long closed and about 160 feet long with the transformer in place. Destined for London, Ont. the transformer was one of the largest ever handled by Ontario Hydro. It was shipped to Toronto from Edinburgh, Scotland."

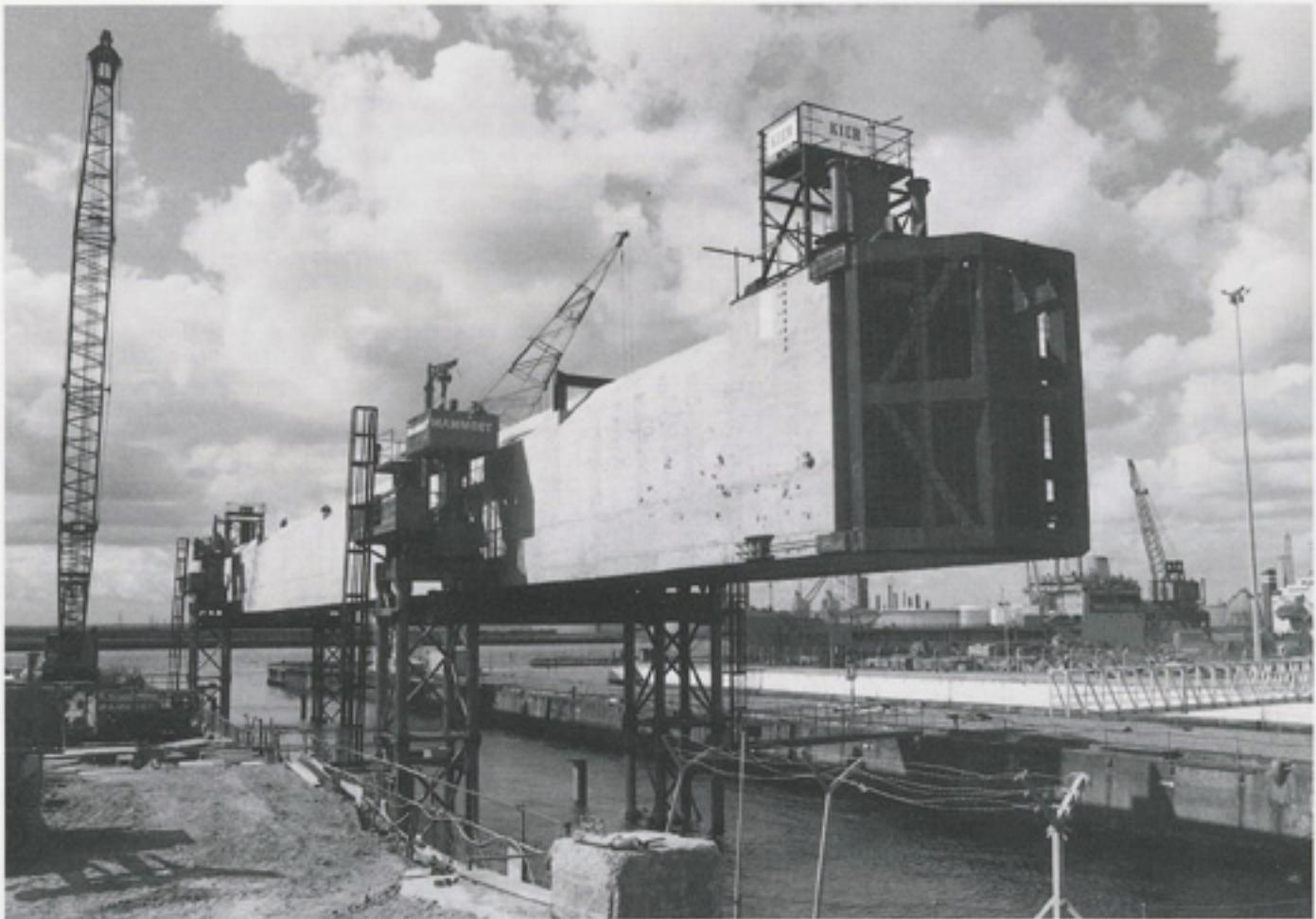


Project Arabia,
Schnabel car –
a dynamic duo



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COMPLICATED JOB

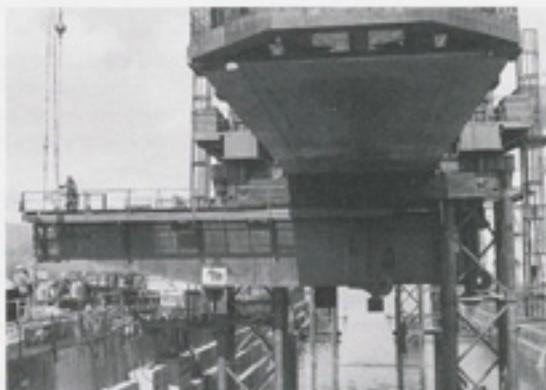


"Not the individual systems but the combination of them is unique." Mr. Ton Raemakers views back on the project that Mammoet executed earlier this year in England's Teeside. Eight tunnel sections of 100 metres, weighing 2800 tonnes each and with a height of 6 metres, were lifted from their foundation by a skidding system and a Hydra Jack system into a dock to be put to sea.

Rising tide

With the adjusted push/pull system the jacked-up tunnel sections were moved over

four rails from their foundation to the dock. Raemakers: "The height of the tracks in which the skidding system was to be installed was one-and-a-half metres. In the skidding system there were four black lifting beams with jacks which were connected to two Hydra Jack units each. The beams were then brought under the tunnel sections and jacked up. Consequently the units stayed on the jacks and were skidded sideways by the black beams. In the dock we placed the sections in four bridge beams which were removed from under the bridge section during rising tide. A technically complicated job that despite the extra difficulties was carried out properly."



In spite of the crises in the Gulf, Alatas Big Lift has executed several interesting transport projects, which are worth mentioning in Mammoet Mail.

News from Alatas Big Lift

Early 1990 ABL undertook the transportation and subsequent loading onto barges of 14 modules destined for the Q.G.P.C. "North Gas Field" offshore development project. The largest module was 29.3 long, 19.6 m high and 19.6 m wide, while weights ranged from 476 to 1025 tonnes.

For these specific operations ABL's platform trailers were used in combination with the on-site transporters of client Belleli Saudi Heavy Industries.

The loadings were successfully carried out over a period of 2 months at Jubail's industrial port facilities, it was the first time that these facilities were used for exporting prefabricated modules.



ABL's 280 tonne mobile crane played the leading role in positioning 3 main modules for a bagging plant at the Kenya complex in Jubail.

These modules, with a maximum weight of 66 tonnes, had been constructed by Agap Arabia at their construction yard, also in Jubail. Preparation and extensive engineering proposals for the lifting operations were major issues in securing the project.



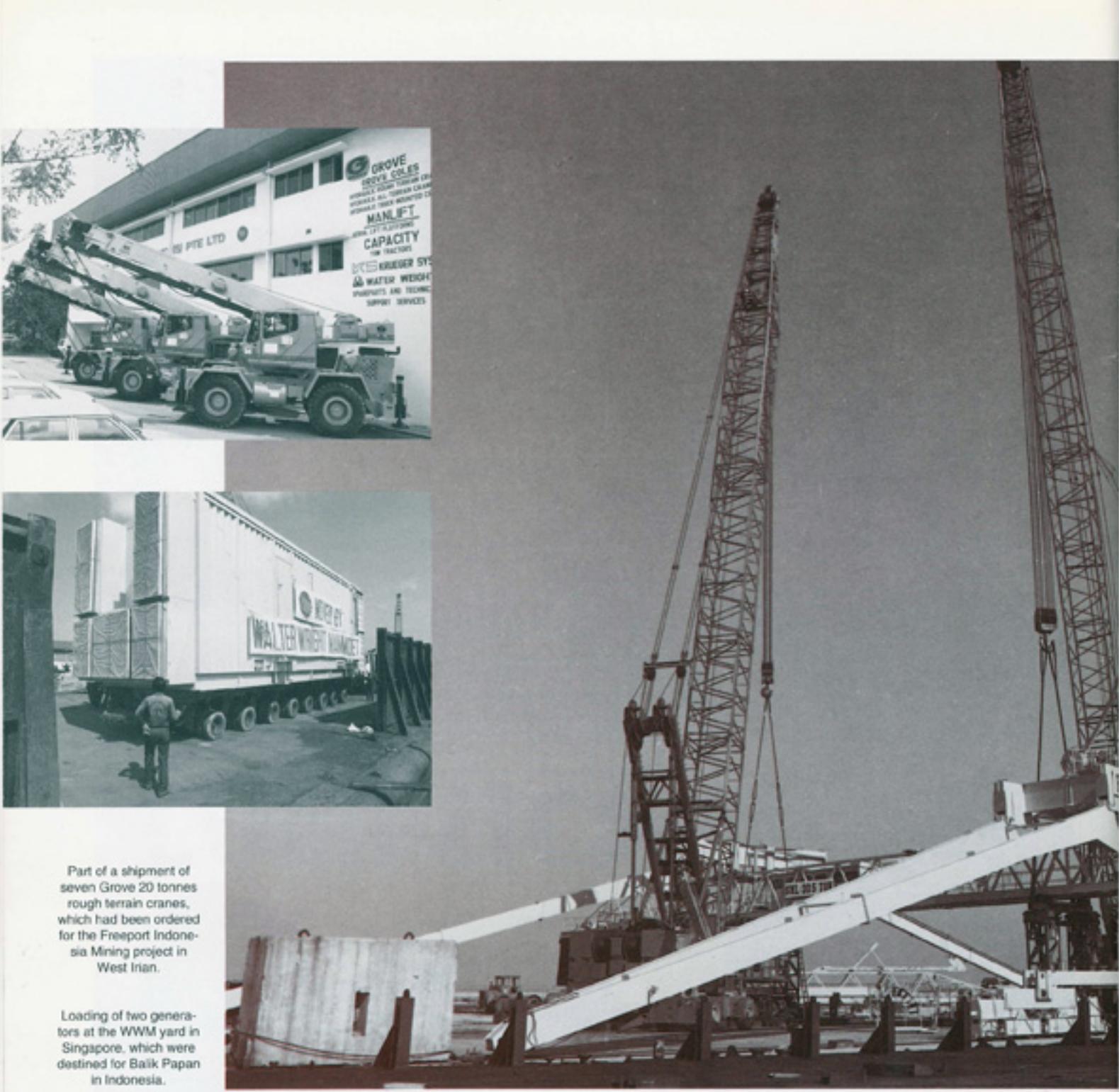
Currently in progress is the transportation of a variety of heavy lifts for the Quarrayah II Power Plant, located 100 km to the south of Al-Khobar in the east of Saudi Arabia.

The project is being constructed by Mitsubishi Heavy Industries of Nagasaki and comprises an extension to the existing power plant, recently completed by the same company.

The extension entails the installation of two 600 MW power generation units, significant parts of the installation are various turbines and an LP turbine module weighing 259 tonnes.

Most spectacular was the transport of a 33 m long steam drum, weighing 318 tonnes, by means of ABL's platform trailers.





Part of a shipment of seven Grove 20 tonnes rough terrain cranes, which had been ordered for the Freeport Indonesia Mining project in West Irian.

Loading of two generators at the WWM yard in Singapore, which were destined for Balik Papan in Indonesia.

Container cranes are familiar items to be transported in the Mammoet group of companies and although it is not literally every day's work, a lot of experience has been gained moving and rigging them.

Walter Wright Mammoet of Singapore went even further and apart from transport and rigging they organised a complete overhaul of an existing Liebherr Tango 80 container crane.

This included the replacement of all electrical components and grit-blasting and painting it. These activities were carried out at WWM's own yard in Singapore, where they have enough space for such an elaborate job.

As the yard is situated next to deep water, loading

and lashing was also carried out on the premises of WWM on board a 240 ft ocean going barge. Then the barge was towed to the port of Kemaman in Malaysia where a Manitowoc 4600 S4 crawler crane took care of off-loading and preassembly.

Then came the spectacular part of the story: the preassembled container crane was erected at the quay site by means of the Manitowoc 4600 in combination with an American Hoist 11320. Offloading, assembling, erection, commissioning and testing was completed within 6 weeks.

Details of the Kemaman Liebherr Tango 80 container crane: overall length 89 m, max height with erected derrick boom 56 m, overall width 31 m, weight 230 tonnes.

News from Walter Wright Mammoet

EXTENSION GHORASAL FERTILISER PLANT

Two spectacular heavy lift operations were recently performed by Walter Wright Mammoet for the extension of a fertiliser plant in Bangladesh for client Toyo Engineering Company (TEC). The two columns, a CO₂ stripper with a weight of 220 tonnes and a CO₂ absorber with a weight of 170 tonnes had been delivered earlier by Mammoet Shipping's "Project Americas" from Italy to the port of Mongla in Bangladesh.

WWM's involvement in the project started in December 1989. A total of 22.000 freight tons, of which 5000 frt heavy lift items had to be transported from various places to the site at Gorasal.

WWM's scope of work included the inland water transportation by barge, off-loading at the quayside at Ghorasal, site transportation and lifting/erecting and positioning. The heaviest piece of the project was a urea reactor column, weighing 305 tonnes, which had been shipped from Spain to Bangladesh in August on Mammoet's heavy-lift vessel "Thor Scan".

WWM expect to conclude this project towards the end of this year, whereas the owner UFFL (Urea Fertilizer Factory Ltd) will inaugurate the new part of the factory in the course of next year.





Baltic Exchange gives Mammoet Shipping UK the edge.

For seven years now Lindsay Adams has been working for Mammoet Shipping UK. In Mammoet's London office in St. Mary Axe, Ms. Adams describes the characteristics of the heavy lift market in the United Kingdom in a clear manner. "With heavy lifts it is very important to get to know the client, which can be a very slow process." "It takes time to build up a rapport and clients don't take to people that are here today and gone tomorrow!" "They need to have faith that you are going to be around for some time, so it is a steady process of talking to the manufacturers in the UK".



Old mills

The heavy lift market in the U.K. is mainly concentrated in the North East, roughly from the Midlands to Aberdeen and Transfomers, Air Separation units, Generators and Storage vessels form the major market segments for Mammoet. "But," Ms Adams adds, "we are, for example, also frequently involved with the shipping of a number of specialist craft, such as yachts, hovercrafts and Jetfoils." Another development is the shipment of second hand mills and plants, some of which are even imported into the U.K. from other major manufacturing countries, refurbished and sold on to a Third World country, so a lot of this cargo is moving into the UK and then moving out again."

The Baltic Exchange

Almost unavoidable the dialogue in St. Mary Axe drifts to the Baltic Exchange. The famous Shipping Exchange where the larger part of dry bulk cargo in the world is traded, is housed three stories lower in the magnificent pre-war building and has some influence on Mammoet Shipping's actions. "Of course the heavy lift market is our main activity" Lindsay Adams emphasizes, "but obviously because of the Baltic Exchange and our access to the Broker market we do get involved with dry cargoes such as concentrates, agricultural products, steels and empty containers as well." "Whenever we see a possibility for a bulk cargo to combine with a heavy lift, we work on that."

"It is obvious that when you combine the two, you get a nice revenue for the actual voyage."

Communication

Mammoet Shipping has been a member of the Baltic Exchange since 1984. "It is a play of communication", she typifies the traditional exchange. "Member Companies are represented by Charterer's Agents and Owner's Brokers." "We, as Mammoet, attend the "Floor" distributing circulars advertising say three or four of our vessels for which we require bulk cargoes to complete a voyage." "These vessels may be 'spot' which means they are open in a certain area almost immediately." "By talking to the brokers they are able to advise what sort of cargoes they have and ascertain where our vessels are." "It might not immediately lead towards something, but over the next few weeks a broker may think, 'I have 5,000 tons of Concentrates and I was talking to Mammoet recently and I know they have a vessel open in Indonesia - that might just fit in.'"

The role of the Baltic Exchange

With the present communication techniques, doesn't the role of the Baltic Exchange decrease?

"I think so, but I still feel the Baltic is very important for any new broker to get to know the market." "By meeting on the 'Floor', you see the face, you get to know

the person and you know who you are working with." "It's a matter of personality." "Again, the main idea is to talk to so many brokers, that when an order comes in from their principals, they give you a call before the cargo becomes circulated on the market."

Operating vessels

How do you operate your vessels on the Baltic Exchange?

"In the early days we played heavily on the fact that our vessels were heavy lift vessels." "Over the past years, however, we have described our vessels as multipurpose, without emphasising the heavy derricks, so that they have more appeal to the normal dry cargo market." "It has taken a while but I think in the last two years particularly it has been very positive that Mammoet are not just known as heavy lift specialists but that we are interested in all types of cargoes." "It gives us the edge on our competitors." "Every heavy lift owner tries to avoid having a vessel open in a part of the world where there are no heavy lift cargoes, which means they would have to ballast to a better area." "With our adaptable vessels and our contacts with Baltic Brokers we can usually 'fix' either a bulk cargo or a time charter trip to position our vessels for their next employment, thus avoiding a loss of revenue by ballasting."



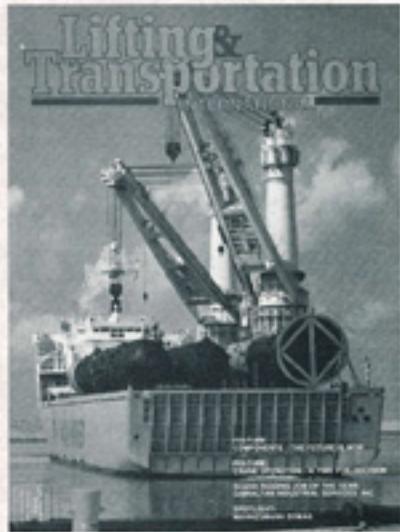
Mammoet delivers splitters to Texas

Mammoet Shipping made the front page of the September issue of the special transport magazine "Lifting and Transportation International". Therein, "Happy Buccaneer" delivered three splitter columns from Porto Marghera in Italy to Port Lavaca in Texas, U.S.A. where Davenport Mammoet took over the cargo. The following article was published in this magazine:

"Mammoet delivers splitters to Texas
Mammoet received an award from Formosa Plastics and Engineering, Taipei, Taiwan for the ocean transportation of three splitters from Porto Marghera to the Port of Point Comfort/Port Lavaca, and the inland transportation from the port to the site of FPC, about five miles from the port.

The splitter columns were 210'x30'x28'x1,200,000 lbs., 220'x30'x32'x1,250,000 lbs. and 300'x30'x30'x1,700,000 lbs. Each was fabricated by A.T.B. Italy. In order to accommodate all three splitters on one ship for the transport from Porto Marghera to the Port of Point Comfort/Port Lavaca, Mammoet Shipping decided to employ the m.v. "Happy Buccaneer". The "Happy Buccaneer" is a heavy-lift ship built in 1984, equipped with two 550 ton cranes, which easily could lift the splitters in Italy onto the deck as well as to discharge the splitters onto land transport equipment in Texas.

The voyage from Porto Marghera to Point Comfort took only nineteen days. On arrival of the m.v. Happy Buccaneer, Davenport Mammoet positioned a barge alongside the ship. Barge offloading was necessary to a ro-ro dock, since the docks at the Port of Point Comfort are not designed for such heavy loads. On the barge, Davenport Mammoet placed its SPMT hydraulic platform trailers. Within three hours of arrival, the ship's cranes lifted the first splitter and placed it precisely on the trailers. After securing the other two splitters, the barge



sailed to a ro-ro dock about half a mile away from the port area. For the inland transportation, Davenport Mammoet made use of the self-propelled hydraulic platform trailers. The SPMT units are able to move in any direction under full load conditions. The trailers are ideal for working on barges and in confined areas. Upon arrival of the barge at the ro-ro dock, ramps were positioned bridging the barge and the shore. The splitter rolled onto the shore smoothly to a temporary storage place close to the dock.

After driving the SPMT trailers back onto the barge, the barge went back to the ship to pick up the second and third splitter columns. All three splitter columns were delivered from the heavy lift ship onto the barge within two days.

Davenport Mammoet unloaded all the splitter columns onto temporary supports at Formosa Plastics by means of the hydraulic system of the SPMT trailers. (No cranes were needed.) Trailers moved from underneath the splitter columns sideways. All splitters arrived within three days at the site well ahead of schedule."





Klantgerichter kraanwerk

Jarenlang al geldt kraanwerk als een specialisme van Mammoet Stoof. In een sterk concurrerende markt vormen kwaliteit en veiligheid voor het bedrijf de belangrijkste wapens. "Een speerpuntactiviteit", noemt Ton Klijn het kraanwerk van Mammoet Stoof. Ton Klijn is hoofd Afdeling Kranen bij Mammoet in Breda en goed thuis in de markt van het kraanwerk. "Een markt," verduidelijkt hij, "waarin je duidelijk twee hoofdgroepen kunt onderscheiden. De ene groep is hoofdzakelijk geïnteresseerd in het verhuur van de kraan en serviceploegen die spullen aan- en afpikken en activiteiten coördineren. Veel van onze zogenaamde kranenkanten zitten in het dagelijks onderhoud en reparatie. In die branche werken we veelal in regie en is het beschikbaar stellen van mensen en materieel het voornaamste." "De andere groep," vervolgt Ton Klijn, "wil een oplossing voor een specifiek probleem. Dit soort projectkanten zijn meestal te vinden in nieuwbouw en daar draait het om het idee. Dat we daar mensen en materieel bij gebruiken is een tweede."

Verantwoordelijkheid

Om beter tegemoet te komen aan de eisen van de twee verschillende doelgroepen heeft Mammoet Stoof een wijziging aangebracht in de organisatie van haar activiteiten. In het verleden waren de commerciële activiteiten voor beide markten weliswaar gescheiden, maar bestond er geen eigen operationele verantwoordelijkheid. Dat is nu veranderd. Klijn: "De afdeling Kranen en de afdeling Projecten hebben nu een eigen commerciële en operationele verantwoordelijkheid. We hopen op deze wijze de werkzaamheden klantgerichter te kunnen uitvoeren."

Centrale punt

De hoofdvestiging van Mammoet Stoof in Breda vormt het centrale punt voor het kraanwerk dat in principe alleen in Nederland en België wordt uitgevoerd. Vanuit Breda vindt de coördinatie plaats van alle verhuur van materieel boven 100 ton. Daaronder verhuren de vier vestigingen Antwerpen, Europoort, Sittard en Terneuzen het materieel rechtstreeks. In totaal beschikt Mammoet Stoof over 40 hydraulische kranen die in capaciteit variëren van 8 tot 330 ton. Recent heeft het bedrijf een bestelling geplaatst voor vijf nieuwe kranen die de markt verder moeten bestrijken.

Belangrijkste wapens

De concurrentie in het kraanwerk is groot. De strijd om een goede bezetting van het materieel wordt telkens zwaarder. Mammoet hanteert in die strijd de begrippen kwaliteit en veiligheid als belangrijkste wapens. Klijn: "We verwachten dat de klant gaat kiezen voor het bedrijf dat de beste service levert. Wat de veiligheid betreft wil het niet zeggen dat we voorheen niet veilig werkten. We proberen de graad van veiligheid alleen nog meer uit te dragen; erop wijzen dat al onze mensen, ook in de ondersteunende serviceploegen, goed zijn opgeleid. Het kraanwerk is niet voor niets een specialisme van Mammoet Stoof."





Crane work more customized

For many years now cranework has been counted as one of Mammoet Stoof's specialisms. In a very competitive market quality and safety are the most important weapons for the company.

'A spearpoint activity', Ton Klijn labels cranework for Mammoet Stoof. Mr Klijn is head of the Cranes Department for Mammoet in Breda and well at home in the cranework market. "Armarket," he explains, "in which you can very clearly distinguish two major groups." "The one group is

mainly interested in rental of cranes and service-teams which hook loads on and off and coordinate the activities." "Many of our so called crane customers are in daily maintenance and repairs." "In that branch we usually work under governed control and the major task is to make people and material available."

"The other group," Klijn continues, "wants a solution for a certain problem." "This kind of project customers can usually be found in new building and there the whole issue

is the idea. The necessity of people and material in the process is a secondary issue."

Responsibility

To improve meeting the demands of the two different targets, Mammoet Stoof made a change in the organisation of their activities. Although in the past the commercial activities for both markets were divided, they didn't have their own operational responsibility; that has now been changed. Klijn: "The department Cranes and the department Projects now have their own commercial and operational responsibility, thus, we hope to be able to work in a more customer orientated manner."

Centre

Mammoet Stoof's head office in Breda is the centre for the cranework which is executed in The Netherlands and Belgium. All crane hire for material over 100 tonnes is coordinated from Breda. Under 100 tonnes the four offices in Antwerp, Europoort, Sittard and Terneuzen rent out material directly. Mammoet Stoof owns in 40 hydraulic cranes which vary in capacity from 8 to 330 tonnes. Recently, the company placed an order for five new cranes which will help cover the market even better.

Important weapons

Competition in cranework is fierce. In that struggle Mammoet uses the entities quality and safety as their major weapons. Mr Klijn: "We trust that the client will choose the company giving the best service." "Although speaking of safety this does not mean that we didn't work safely before." "We try to promote our standard of safety even better by pointing out that all our men, also in the supporting service teams, are well educated." "We don't call cranework a Mammoet Stoof specialism for nothing."



Load-outs in the



After a lean period, the market for load-outs of offshore modules starts to pick up. The increasing activity can be translated in new projects for Mammoet. Frans Segeren, head of the department Self Propelled Modular Transporters (SPMTs) of Mammoet, doesn't want to link the increasing activity in offshore directly with the Gulf-crisis. "Although the price of oil has increased drastically, it always takes some time before an event like that develops into the execution of new projects." "The improving market is a trend that already showed before the problems in the Middle East arose."





Peaks and lows

According to Mr Segeren, who coordinates the world-wide planning for SPMTs, Mammoet's prospects for 1991 in the field of load-outs are good. "In fact business has been alright for the last half year." "According to present insights this will remain so until the end of 1991. At the moment even prospects for 1992 can be called fair." Mr Segeren adds that prospects are called fair when the trailers are occupied for 150 to 200 days in one year. "It is important to spread the projects over a whole year as efficient as possible. In the offshore market peaks occur in early Spring, since then conditions are favourable for placing platforms at sea. Project-wise we try to book for the Autumn as well. And then filling-up between the peaks is very important. Thus 1991 will be a good year. The lows between the peaks will not be so deep, because they will be filled-in with non-offshore activities."

More flexible

At the moment Mammoet is also working on the American offshore market with their trailers, operated by Davenport Mammoet. Platforms are still being loaded-out by a rail system or with a skidding system. It takes a lot of effort to convince the American fabricators that load-outs can be performed in another way, not the least since they then will have to change the way they build the modules. However, Mammoet already executed a few site moves, so that it can be proved that in the end the SPMTs with the computer controlled cars and built-in hydraulics are much quicker and more flexible.

Increasing weights

A development in the load-out market which causes Mr Segeren to be slightly worried are the gradually increasing weights of the modules. A recent example was the integrated production platform Kittiwake, which was moved by Mammoet onto a floating pontoon in May this year. The 8010 tonne module has been the heaviest object ever to be moved on wheels. "The topsides become heavier every time and that can lead to the situation where we must mobilize all our equipment for one single move." "On the other hand, offshore fabricators accept projects of such size that they partly need to subcontract. Smaller yards will have to deliver to the larger ones on a modular basis which also creates a market. In any case these are developments which we must monitor closely."

Mammoet UK strikes new

Wallsend - The meeting with Norman Reed, Branch Manager of Mammoet U.K., takes place on the Press Offshore yard in Wallsend, close to Newcastle, where, behind us, a record load-out of an integrated production deck has just been performed. The yards along the North-English and Scottish coast, where most of the module construction takes place, are



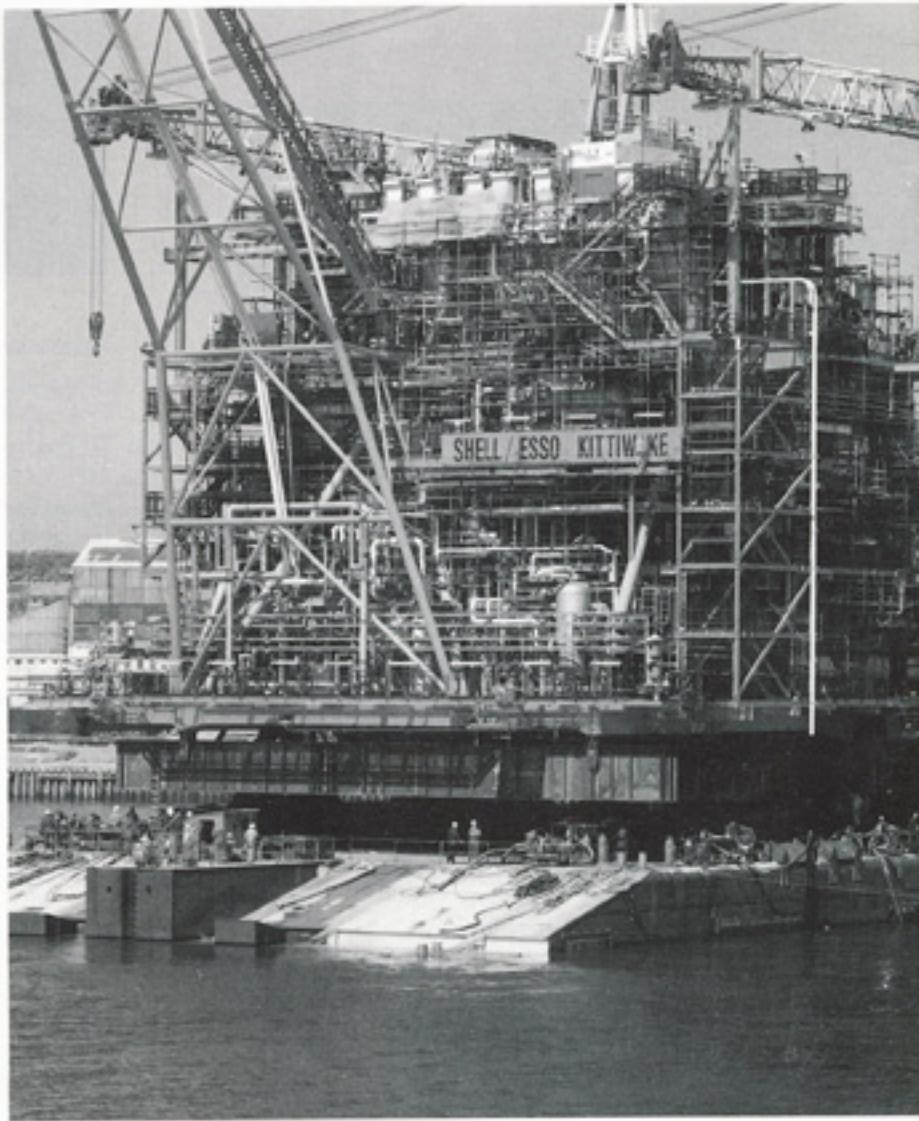
familiar working ground for Mr Reed. When asked he admits: "I think it is fair to say that over the past four or five years, although we have done other types of operations, the load-out business is probably 80% of our revenues." "The other 20% has been on a range of onshore projects; erection of vessels and columns and the transportation and shipping of various projects."

Early stage

Mammoet U.K.'s office is situated in Middlesbrough, a bit more to the South. "A good operational centre", Mr Reed calls it. "There is a lot of expertise both on management level and operation level, a good source of labour." In the offshore business Mammoet deals exclusively with fabricators who are based around the coast. "But", he adds, "we are increasingly doing consultancies for the engineering companies and the oil companies, who are more often based in London." "We do early feasibility studies and analysis of conceptual designs and advise whether the modules can be loaded-out using present day technology." "Or if load-outs are not possible what changes they should introduce into their designs to make them efficient for loading out." "All our advice is in a very early stage of the operation."

Important market

By the way, Mr Reed does not only signal a change in emphasis in the offshore industry. In future he expects Mammoet U.K. to play a more active role in onshore projects as well. Albeit, he emphasizes, without harmful consequences to the partaking in load-out operations. "We don't see an immediate reduction in the offshore-business, but there is a significant increase in onshore-projects being constructed using modular techniques."



"Because of the shortage of skilled labour in the more remote areas where a lot of these projects are being built, most clients now seem keen to build onshore-projects in a modular fashion." "They build the major components, as modules, in established yards with established labour and then they move the complete modules by land and by sea to the new site." "So we see this as an important market in the future."

Package deals by IMPS

According to the Mammoet Branch Manager the new market, pictured above, is one of the causes that lead to the foundation in England of the project company Interlift Mammoet Projects Services Ltd (IMPS), a joint venture between Mammoet and Interlift. Thus both companies join their forces in the British market and

can offer the customers a complete package of services that runs from craneage to sea transportation. Mr Reed: "The strategy of IMPS is to offer the clients package deals from the place where the item is fabricated to the completion on site." "We are offering one organisation to do the shipping, the land transportation and the erection on site." "In the U.K. we could not offer this package alone." "It was not practical for us to introduce cranes, that would have been very expensive." "There are too many cranes in the U.K. already, but by teaming up with Interlift we have got an excellent range of cranes." "On the other hand, Interlift benefits from the expertise and equipment of Mammoet's land transportation and Mammoet Shipping." "The package is complete." "Now we've got to market the concept."

markets



Veiligheid een continu proces

Ondanks het hoge leergeld dat er inmiddels voor is betaald, blijft veiligheid in het bedrijfsleven een van de meest onderschatte begrippen. "Het zit bij iedereen wel achter in het hoofd, maar wordt te vaak te makkelijk bekeken," weet ook Miel Vreugde, veiligheidsman bij Mammoet Stoot in Breda.

"Wij werken in een zogenaamde branche met verhoogd risico. Het werk is zwaar en specialistisch. Als het hier mis gaat, gaat het goed mis. Veiligheid moet in ons bedrijf prevaleren", benadrukt Vreugde. Als voormalig vestigingsleider van Mammoet in Terneuzen kent hij het klappen van de zweep op het gebied van veiligheid: "In Terneuzen zit de vestiging op het terrein van het petrochemische bedrijf DOW en veiligheid is mij daar met de paplepel ingegoten. DOW eist van elk bedrijf een veiligheidscontactman en die functie heb ik daar jaren achtereenvaard waargenomen."

Meer lijn

Vreugde zet uiteen dat veiligheid de voorbije jaren in het bedrijfsleven een voorname rol heeft toebedeeld gekregen. De geleidelijke invoering van de Arbeidsomstandighedenwet (ARBO-wet) vanaf 1983, als opvolger van de veiligheidswet, legde de ondernemingen verschillende plichten op. "Vanaf dat moment is er meer lijn gekomen in het veiligheidsbeleid van bedrijven. Je moet nu een wet volgen en bepaalde voorschriften naleven. Ongevallenregistratie en opleidingen zijn daar voorbereid van." Om het veiligheidsbewustzijn van de medewerkers te verhogen, verzorgt en coördineert Vreugde binnen Mammoet trainingen. "Wij kunnen als bedrijf een opleiding in bij de Bedrijfsgeneeskundige Dienst (BGD) in Breda. Ik geef vervolgens de onderwerpen voor de trainingen aan die door twee veiligheidsdeskundigen van de BGD worden verzorgd. Jaarlijks worden ongeveer 20 mensen van ons opgeleid."

Nooit geliefd

Vreugde is vaak te vinden bij projecten om toe te zien op het naleven van de veiligheidsregels. In een uiterste geval kan dat zelfs leiden tot ingrijpen, een actie die hem zeker niet in

dank zal worden afgenoemd. "Dat kan me niet schelen. Een veiligheidsman is nooit geliefd. Die moet mensen ombuigen. Ik volg bepaalde lijnen en probeer die door te sturen. Maar de mannen op de werkvlakte moeten het maken. Die moeten het beleid uitdragen, elkaar controleren en het zelf uitvoeren. Jongere mensen aanvaarden het makkelijker dan de ouderen. Die willen nog wel eens zeggen 'we werken hier al 25 jaar en we hebben het altijd al veilig gedaan'. Het probleem is echter dat veiligheid wel bij iedereen achter in het hoofd zit, maar het wordt vaak te makkelijk bekeken. 'Dat kan wel even', wordt er dan gedacht. Als je niet oppast ontstaat er op die manier een langzaam aflopende lijn. Veiligheid moet daarom een continu proces zijn."

Ondanks de kritiek prijst hij het veiligheidsgehalte binnen Mammoet. "Ik durf te zeggen dat wij ver vooruit lopen op andere firma's. Er is een goede discipline bij het werken. Vaak zijn we echter afhankelijk van derden die bij de projecten zijn betrokken, die niet altijd dezelfde maatstaven hanteren."

Bij Mammoet is de veiligheid een onderdeel van het introductieprogramma geworden. "Als er een nieuwe werknemer in dienst wordt genomen, bereid ik hem voor op de praktijk, met name hoe hij zich ten opzichte van veiligheid dient op te stellen en te gedragen, niet alleen bij klanten, maar ook in ons bedrijf. Al die factoren zijn belangrijk. En ik toon hem nog een film van een petrochemisch bedrijf. Dat doe ik om op hem in te spelen als hij bij zo'n complex komt. Om hem vertrouwd te maken met het melden, legitimieren, de geldende regels en procedures en het rookverbod." Ten slotte doelend op het hoofdkantoor in Breda: "als de discipline hier wordt gekweekt, dragen de mensen dat vanzelf op het werk verder uit."



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