

MAMMOET

MAMMOET

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House magazine
of Mammoet
Transport B.V.

- The Bratislava project
- The science of measuring
- 'Happy' newbuildings completed



The offshore industry is an important area of activity for the Mammoet organisation. The scope of work is not limited to eye-catching load-out operations, but also includes weighing and ballasting services. Read all about it in this issue.

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THIS ISSUE

Another new issue of Mammoet Mail, as usual jam-packed with interesting stories about people and events in the never-ending heavy lift and transport business. Somebody once asked me, "How come that doing Mammoet PR is a daily task. Mammoet is already one of the most reputed heavy lift companies and what's the sense of keeping the Mammoet organisation in the picture". I replied: "Yes, it does make sense. Why do you think that Coca Cola spends millions of dollars on name promotion when they are the most recognised brand in the world?" Every time a new issue of Mammoet Mail sees the light, the readers expect something new and the ever growing request for subscription proves that the magazine is appreciated. Albeit, Mammoet Mail is not a subscription magazine. The only way to receive it, is by being on a mailing list of one of the Mammoet companies. After all, it is a magazine specially made for our present and future clients.

For those who do not fit in these categories: there are many other opportunities to see Mammoet. For example on Discovery Channel. Watch for the documentary "Mega Trucks" in the series "Extreme Machines II" to be relayed on television worldwide. Mammoet's Self-Propelled Modular Transporters play a prominent role, from the Red Dog project in Alaska to the Hibernia project on Newfoundland and from the Tampa project in Florida to a load-out operation in the Netherlands. To find out about the scheduled broadcasting dates in your area, you might visit the Discovery website on <http://www.discovery.com>. We spoke with Director Alice Harper, who was responsible for the production and who appreciated the co-operation with Mammoet.

And while visiting websites, don't forget to look in at Mammoet on the web on <http://www.mammoet.com>. Yet another valuable communication tool to let the world know what Mammoet is about.



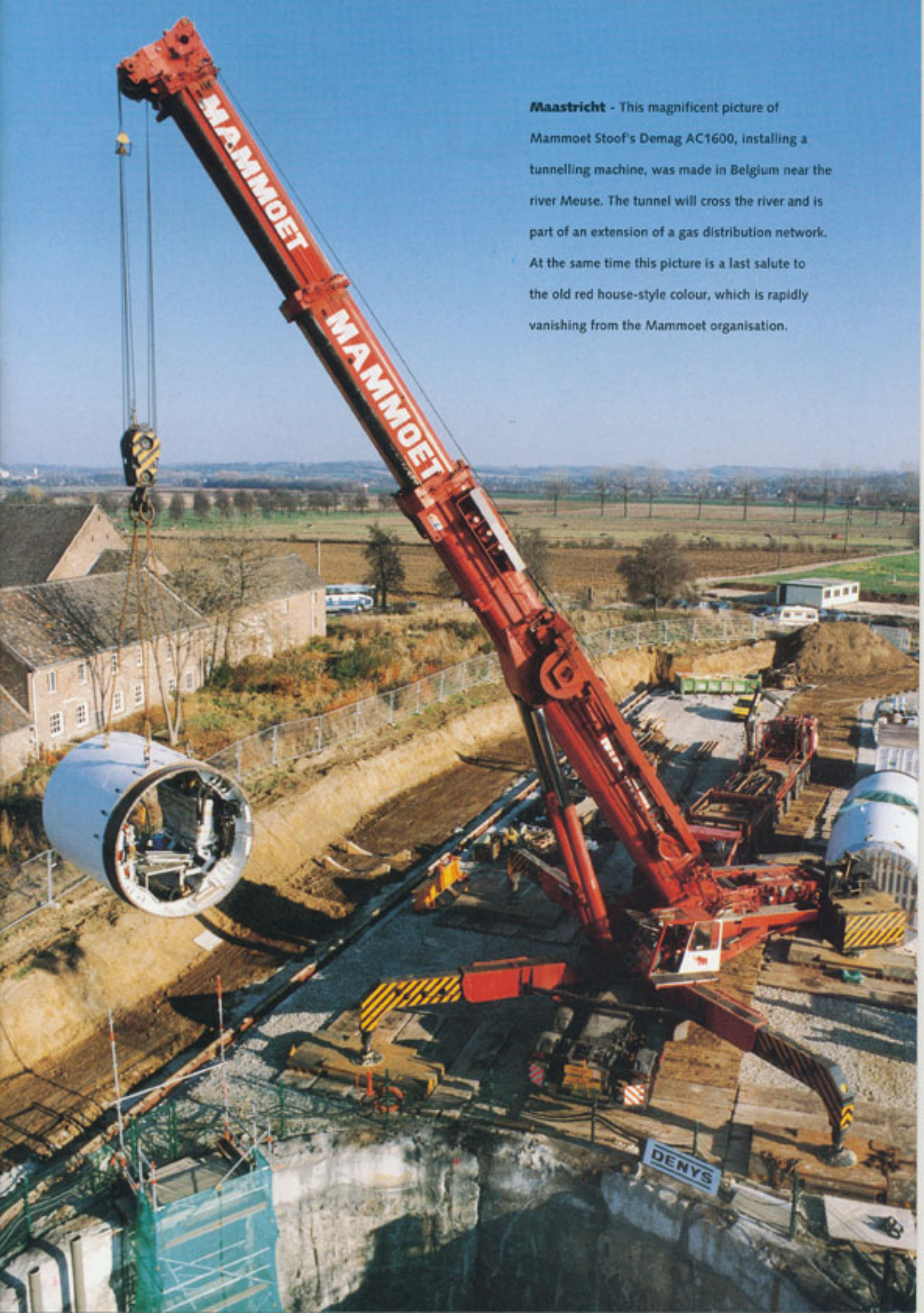
- 4 Mammoet Shipping have now completed their newbuilding scheme. The fourth, and for the time being, last vessel was given her name by Mrs Emillie Komori, spouse of retiring General Manager Mr Yuzo Komori of Mammoet Transport in Japan. Earlier, Mammoet Mail witnessed the mating of the heavy cranes with the ship at the Schelde Shipyard and visited a Mammoet Shipping project at Port Hedland, Australia.



- 12 What does a Mammoet weigh? Mammoet knows and as a matter of fact has known for many years now because of the operation of their own weighing system for the largest weights. It is mainly used to determine the weight of offshore structures, but recently also a luxury yacht and a blast furnace which were put on the scales. The present system is improved and is now even more accurate than before.



- 20 Integrated heavy transport is still the recognised specialisation of the Mammoet organisation. The Bratislava project, featured in this issue, is a good example of the joint forces that can be mobilised in the Mammoet organisation. At the same time the article gives a glimpse of the promising new MSG 50 lifting system, which will definitely gain its own share of the lifting market. A picture report, from Japan to Slovakia, from factory to foundation.



Maastricht - This magnificent picture of Mammoet Stoof's Demag AC1600, installing a tunnelling machine, was made in Belgium near the river Meuse. The tunnel will cross the river and is part of an extension of a gas distribution network. At the same time this picture is a last salute to the old red house-style colour, which is rapidly vanishing from the Mammoet organisation.

HAPPY RANGER

Mammoet Mail was at "Schelde Shipbuilding" during the installation of the heavy cranes for the newbuilding vessel "Happy Ranger". The other three Mammoet heavy lift vessels had been built at "Merwede" Shipyard and Henk Stam, project manager for the Mammoet newbuilding tells something about the different method of building at Royal Schelde.



GETS MUSCLES

Flushing - "We have a building method that differs from "Merwede" Shipyard. They build on a slipway and we build level in a dry dock. One of the features of the new shipbuilding method introduced by us is the assembly of sections into fully equipped ship blocks weighing up to 500 tonnes. The assembly of these blocks, in turn, into a fully operational ship in a dry dock results in a minimum of occupation and, consequently, a more effective use of the dock. At Schelde-Oost we built a special large hall for the assembly of complete sections. That involves the assembly of a series of sections with the various building layers finished and as far as possible all equipment installed. Merwede Interior Building is now busy decorating the super structure and installing the furniture. The advantage of our hall is that the four-

tion of floors, electrical wiring, ventilation and last but not least isolation can be installed by the various disciplines in a controlled and conditioned manner.

The "Happy" vessel which was built at "de Schelde" is identical to the other newbuilding Mammoet vessels. According to Mr Stam there is hardly any difference to be seen. "All drawings are supplied by "de Merwede" with the appropriate details. We were given copies of all purchasing orders, the same parts according to the same specifications. They had done this in fact for three vessels, plus an option and from that series one was assigned to us. In that way we can build a near identical vessel."

Royal Schelde has been operating in both the merchant and the navy shipbuilding markets. "Early last year we delivered a double deck, double ended ro-ro ferry which was followed by an order for two ro-ro trailer carriers and a 76 metre high-speed catamaran. Furthermore, we are now building an amphibious transport ship for the Royal Dutch Navy at Schelde East and at the Flushing yard we are transforming a supply vessel into an oceanographic vessel. The "Happy Ranger" with a width of 22.8 metres is being built at Schelde East as the drydock here in the centre of Flushing is too small."



M.v. "Happy Ranger"'s two 400 tonne capacity lifting cranes were installed at the Schelde East drydock. The "Huisman" cranes, with a piece weight of 270 tonnes, were positioned with the shipyard's portal cranes to which they were hooked on with a 400 tonne lattice boom crane of Mammoet Stool, sister company to Mammoet Shipping.



Ferrying modules to Australia

Mammoet Shipping has been quite busy ferrying modules for a hot-briquetted iron plant from Batangas in the Philippines to Port Hedland in Australia. The plant is being built modular-wise, which method of construction is rather new for Australia. Mammoet Mail surveyed the project and talked to an onlooker at the scene, Mr Robert G.J. Dodd of Lowther-Rolton International.

Port Hedland - "When Lowther-Rolton were first involved in this project in 1995, it was considered to be a stick-built construction. Our experience was called upon by BHP to develop a concept that would facilitate the efficient progress of construction, maximise work fronts and reduce time, with a very high regard to safety. So the idea was to build everything at a low level and hence the SAM concept came about; SAM meaning sub-assembled modules. Unfortunately, because the design of the structures were already so advanced, we could not totally modularise the structures, but we were able to modify the plans to 60% to 70% modularisation. That resulted in the project which is now developing very fast. Actually we are working on six fronts, which are all active at the same time."

Time and Safety

According to Mr Dodd the factors time and safety were decisive to go for modularisation. "This method gives them (BHP) the finished product in the shortest possible time. With a stick-built approach you would still need large cranes — the reactors are still very heavy and

the structure is still some hundred metres high — but there would be much more construction time and a considerable amount of temporary access would be needed, for instance for scaffolding and other time-related side effects. Since specialised forms of transport are now coming in, like heavy lift vessels, it may look more expensive. However, these specialisations have added value in the form of a quicker return on investment. The quicker you achieve completion, the quicker the client can get his product out on the market."

Modularisation came to the Pacific area only fairly recently. Mr Dodd explains, "You are able to build modules in well-populated areas and send them to other places where resources are scarce. That means that when you come to the construction phase you need far less labour, which in turn has much smaller impact on limited services and local communities. So it has significant bearing on the overall position of the project. For us as an independent company, our task is to make the clients aware of what can be done with good (transport) engineering and the benefits that



During the unloading of the modules, the m.s. "Happy River" had two captains on board as they were scheduled to change command. Mammoet Mail interviewed both and apart from some good Dutch hospitality, was given some first hand impressions of the new vessel.

"For us heavy lift shipping is a completely different world. I started sailing as a Second Officer and I have grown up with brown blood." Speaking is Captain Verheul, who commanded the "Happy River" on her first voyages. In the background Captain Van den Hout listens attentively. He will take over the helm at Port Hedland. "In Spliethoff we are working very intensively with general cargoes such as special paper and steel cargoes while checking the loading and discharge of the cargoes. With Mammoet Shipping the preparation is largely physical, take for instance the rigging of the gear. At Mammoet we usually load the heavy pieces ourselves, were Spliethoff's general cargoes are being loaded by the stevedore and we are more or less overseers. Spliethoff's captains and first mates act more as supercargoes. With the projects I have experienced so far, such as the shipment of the container cranes and the modules from the Philippines, the superintendent's role is very important especially for the preparations in port before the arrival of the vessel. But even though everything is very well organised, we have to improvise now and then. This happened for instance with the module that we discharge today; we had to rearrange the lifting arrangement in Batangas.

The change from general cargo to heavy lifts was not too difficult for Verheul. "I definitely didn't loose any sleep over it. It has more or less grown on us, starting with the testing of the cranes, first with 400 tonnes and later with 800 tonnes. During these tests we had a Mammoet Shipping first officer present who has quite some experience in heavy lifting. And so you more or less ease into it."

"Sailing from A to B remains the same, whether it is for Spliethoff or Mammoet," Captain Van den Hout remarks, "but the instructions you supply when lifting with the heavy cranes are much more to the point and of course we have to learn working with the anti-heeling system."

Both Captains find that the position of the wheel-house and accommodation at the rear of the vessel comes quite natural to them. "Had we had the superstructure at the front, as with the "Happy Buccaneer" we would have had more to get used to. Of course we have a fully equipped wheel-house at the front of the ship. This is necessary to be able to pass the Suez and the Panama Canal, and it also supplies a possibility for entering and leaving without having to hire extra tugs."

"The "Happy River" performs very well. A state-of-the-art ship, especially with regard to lifting and ballasting."



developed into providing a dedicated service to clients. Looking purely at the shifting and lifting elements of load movements we understand what the shipping, transport and lifting companies need. We arrive at the concepts and the engineering, where we can actually design that knowledge into the modules in a very early stage." According to Mr Dodd, Lowther Rolton employs twenty staff now, engineers and CAD technicians. "We are growing, depending on the work. We produce quality product for the client so we have to grow with the right people having a wide vision and being capable of accepting a challenge."

No end in sight

"Judging from what is available, modularisation will continue to grow. At the moment it seems there is no limit to what can be lifted and transported. With modular trailers the limit is basically the number of axles on the site, with cranes it is their structural capabilities. Both have been growing over the years and to some extent there is no end in sight. It was only thirty years ago that 100 tonne cranes were considered to be large. Now we have cranes with phenomenal lifting capabilities in addition to other systems. And as for heavy transport; the self-propelled trailers particularly are coming into their own as plants and modules grow. And here too we can give independent advice. For instance, a crane company may propose to install the modules basing their tender on what their equipment can lift. But if there's no reason to go to the trouble, why bother. Instead, modules could be trailered into position, such is the situation here. Out of the total number of 27 modules coming from Batangas, 13 piperack modules will be trailered into place."

Mr Dodd observes that the client on the whole does not always have the man power or experience available to look at and review all heavy lift transportation systems. "Ultimately, by taking a step back you will clearly see what it is you are trying to achieve in a project. Once knowing the advantages and disadvantages of the systems available, knowledge of all the equipment and what the project objective is, a clear line will determine the best choice of equipment for the project."

can be gained. On the other side, Europe is more developed in terms of modularisation".

Mr Dodd refers to the very first job Lowther-Rolton International was involved in as independent consultant engineers. That was together with Mammoet at Stanlow in 1987. From then on they were awarded abundant projects for the petrochemical industry to ensure that all engineering from all parties is capable of being carried out successfully. "Lowther-Rolton are purely consulting engineers with a background in civil construction and engineering. We do not operate as contractors. Our experience comes primarily from major bridge contracting companies and we have





There's no business like Mojo business

A concert by the Irish pop group U2 in the Feyenoord stadium drew a crowd of 45,000. An important part of the show were the extravagant sets on the stage and the largest video wall in the world. Mammoet played a leading role in the construction with two hydraulic mobile cranes. A report from the Kuip stadium.

Rotterdam - "In the old days we only needed a little crane to erect a tower. Today we have two large cranes working from early in the morning till late at night." Speaking is Jack Smale who co-ordinates the technical side of the U2 concert which must take place in the weekend. "In future we will use even more cranes, simply because that will be easier. We used to work with conventional scaffolding, now we use ready-made sections. The advantage is that the building work is much quicker. We need fewer people and besides, cranes are relatively cheap."

For Mojo Productions, Jack Smale takes care of all of the production and logistics affairs of the pop concert. "Mojo is a group of people who know all about music and booking concerts. They approach pop groups and if their offer is accepted, the production side is put in motion. This is quite a different group of people and I'm one of them. A total budget is made involving all costs and we have to work with that expectation. I have been doing these jobs for the last twelve years and I must say, they are addictive. It is a lot of fun to work with people and to come to know a lot of different companies. I have been in contact with Mammoet since 1987 when I arranged the first U2 concert for Mojo."

Mojo, the largest concert organisation in the Netherlands, is a regular client to Mammoet. They worked together for instance while preparing the concerts of David Bowie, Pink Floyd and Prince.

The relationship between Mojo and Mammoet Stof is excellent and according to Jack it is the flexibility which is most valued. "We must be able, so to speak, to call our suppliers in the middle of the night. We cannot say in advance what the schedule will look like and that's inherent to this business. Planning changes regularly and the crews do not always arrive on the dot either. Through the years the companies who work for us have shown their flexibility. Of course, price is important, but being there at the crucial moment is much more so. In the end we choose for quality."

The techniques of stage building have advanced. Mr Smale explains, "Everything has been thought off beforehand and through the years the companies have learned to work together as efficiently as possible. Maybe we have a hydraulic system in ten years time that will enter the stadium under its own steam and unfold." For the time being, however, the cranes of Mammoet play a major part in stage construction.

Last year Jack Smale started his own company by the name of SiteLines. "Since we were asked more and more to organise other business for third parties we set up this business. We organise company presentations and have, among other things, arranged the show for the opening of the Arena stadium in Amsterdam, as well as the start of the Tour the France and this year we will organise the Gay Games in Amsterdam. ☺"

Mammoet in Focus

Amsterdam - For the restoration of the National Monument commemorating the victims of the Second World War, prefabricated concrete elements had to be transported and positioned. Mammoet Stof mobilised their 160 tonne capacity LTM 1160 telescopic crane for this job. Various weights were lifted from 15 tonnes and more. In the background the famous "Palace on Dam square" in the centre of the city.



Alkmaar - A 110 tonne telescope crane of Mammoet was lowered into an excavated building site. The crane had to assemble prefabricated concrete parts for the construction of a car park in the center of Alkmaar (The Netherlands).

London - The third Annual Christmas reception was held at the Baltic Exchange in London on December 4. The event was hosted by both Mammoet Shipping London and Mammoet Transport Middlesbrough with the assistance from colleagues of Deeside, Breda and Amsterdam. The party was attended by many clients mainly from the freight forwarding and engineering sectors. As a memory of the occasion the guests all received their own pair of "Mammoet socks" (one size fits all).

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Singapore - A new fly jib for Walter Wright Mammoet's M1200R has been tested in Singapore. After this upgrading the ringer crane can accommodate heavy columns of 750-800 tonnes with a length of 100 metres.



Hong Kong - In April of this year the Check Lap Kok Airport will handle its first commercial flight. The roof of the 1.2 kilometer long passenger terminal complex was assembled modular-wise. Walter Wright Mammoet took care of transport and lifting of a total of 129 roof modules by means of lattice boom cranes of the types CC2600, CC4000 and CC4800. Pictured is the Demag CC4800 positioning one of the roof modules.



Klazienaveen - A spectacular movement of a so-called rotating furnace was performed by Mammoet's SPMTs which attracted a lot of attention from the neighbourhood. The 450 tonne furnace had a diameter of 4.5 metres and a length of 36 metres. An additional difficulty was the fragile fireproof brickwork inside the oven which was not allowed to break loose.



Dunkerque/Geleen - A 240 tonne pool reactor and other equipment were transported from the factory in France to the DSM chemical plant in Geleen over land and by water. At the Urea plant UF2 FSM Geleen project, Mammoet's 400 tonne lattice boom crane with superlift attachment took care of the lifting and positioning.



New Weighing System

"After twelve years of weighing small and large offshore structures everywhere in the world, our weighing

system needed an update", explains

Ludo Mous, Project Manager for

Mammoet Stoof in Breda. This resulted

in an improved system which is

extremely accurate and very reliable.

The first job that was carried out with

the new system involved the weighing

of the hull of a large yacht in South

Africa. This project was carried out

successfully.



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Breda/Zwijndrecht - "In the meantime we have built up a very good reputation with our weighing system", Ludo Mous explains. "Most of the projects we carry out with it, involve the weighing of offshore modules and determining their centres of gravity. Weights vary from some hundred to several thousands of tonnes. Special projects which we carried out were the 9300 tonne integrated platform of Chevron at Grootint in Zwijndrecht and a 10,500 tonne module of Conoco at the Norwegian HMV yard in Haugesund.

We also accurately established the weight of one of the super modules of the Hibernia project in Canada. Besides it is used to weigh jackets and ships' sections. For all these different jobs we have a total of twenty-four loadcells available, also called pressure boxes, which have an individual maximum capacity of 750 tonnes. Every load cell comes with a 600 tonne hydraulic jack which again is supplied with a stroke or altitude meter. Were we to use all cells and jacks at the same time, we could accurately measure

constructions with weights up to 12,000 tonnes. The weighing system's computer steering had become outdated after twelve years of intensive use. Every load cell was steered from this computer through a separate line. A second line had to be used for communication. All this resulted in a spaghetti of wires, especially when we used all twenty four load cells for large projects. Then we would use 48 cables and 96 connectors at the same time. This could trigger failures. Reason to start updating the system rigorously."

Changes

"We kept the load cells and the jacks of the old system. Especially the hydraulically operated jacks are still in perfect working order. The computer, on the other hand, has now been replaced by a laptop computer. Communication and steering the system is now carried out through one central wire. Every load cell has a weight amplifier connected to this central wire. In the amplifier the load cell's signal is digitalised and sent to the computer through that same central wire. The computer's commands to the weight amplifier are only executed when a signal has returned from the weight amplifier. In short, not only communication has improved, but also steering and control are now extremely good. This implies that we can now weigh even more accurately and that the module can stay completely level while lifting. The system checks four to five times a second so that the number of faults has been reduced to virtually none. Should something go wrong despite all this, the computer acts timely. A further exceptional facet is the possibility to arrange the jacking of sensitive spots in modules — places that allow for much less pressure — in such a way that these spots are indeed jacked with lower pressure, thus avoiding damage. All in all, we now have a fully updated system with which we can swiftly and efficiently weigh modules and other heavy constructions. By the way, the scoop went to a yard in South Africa where we used the improved system to determine the weight of a luxury yacht. This turned out to be 950 tonnes. Weighing was necessary to establish the right point of ballasting of the hull in order to obtain the correct draft".

Calibration

"Furthermore, calibration of the load cells has improved. This is now done in-house through certain procedures and is fully computer steered. To calibrate or justify our load cells we use referential cells. Once every year we take these referential cells to an accredited company. In the past we had to travel to Switzerland but lately we just have to turn up at the "Nederlands Meetinstituut" in Delft. This company, which is also accredited, very accurately determines the so-called K-factors of the referential cells. A K-factor is a calculating factor for the computer to determine the zero value of a load cell. This is used to correct any losses in the cables."
"I think that with handling the matter like this, Mammoet Stof dis-

tinguishes from the competitors. The same goes for the weighing to specifications of offshore modules. According to these specifications stroke or altitude meters must be used while weighing. I think we are the only company that has installed such stroke meters on all jacks."
"Finally, also the presentation of the results has improved. Immediately after weighing, the laptop or pc prints a complete certificate with the measured results. These can also be supplied on disk. The outcome of the weighing is therefore always available."

Development

"For the development of the improved weighing systems our two weighing specialists have worked very closely together with a company called Syrix Design in Zwaag. This company, which is the expert in the field of development of weighing amplifiers, worked out the ground rule that with regard to steering and communication, the weighing system had to be carried out in the same way as the system we already use for our platform trailers. There too all signals are being sent through one line of communication. Syrix Design has managed to incorporate all our ideas, wishes and experiences in the new system. The programme ruling the system works on any laptop or pc with Windows 95. In order to be able to use the system worldwide, we bought two 20 foot containers which can neatly hold all jacks, loadcells and hydraulic systems. They even take a generator so that we can work in every possible location. Everything we need for a weighing operation is in those boxes."

Projects

"In the meantime, we have been able to book some more projects. Most of these concern contracts in the offshore industry, among others weighing a module at the Heerema yard in Flushing, succeeded by two weighings on yards in Norway. These two assignments are on in a few months time. Firstly, we will go and weigh an old furnace in England at an onshore plant, before it is replaced by a new one. With our platform trailers we will take care of transport while our jacks will be used for the installation. As Mammoet Stof we are able to offer our clients a very special complete package. Besides weighing, determining centres of gravity, jacking and lifting we can also move large objects by special trailer. Should we require additional transport by water, we can call on Mammoet Shipping as well," Ludo Mous concludes.



Where the calibration of load cells is concerned, Mammoet Stoof has recently started working closely with the Nederlands Meetinstituut (Netherlands Measuring Institute, NMI) in Delft. This institute owns special calibration facilities which are regularly used by companies and public services, according to MNI staff member Rolf Muijlwijk, who is also the author of a special booklet on weights and measures.



Metrology: the science of measuring

Delft - "The Nederlands Meetinstituut", Rolf Muijwijk explains, "developed from the Service of Weights and Measurements. This national service started in 1873 and resorted initially under the Ministry of Economic Affairs. In 1989 the department was privatised and the name was changed into Nederlands Meetinstituut. By the way, the said ministry is still our mayor employer as it is responsible for the enforcement of the Weights and Measures Act. The actual work is carried out by us. Part of the NMI is the Van Swinden Laboratorium which is mainly carrying out the Standards Decree. This entails that within the Netherlands quite a number of standards are being realised, together with the corresponding calibration facilities. The laboratory employs 105 people, while the NMI gives work to more than 300.

Besides the calibration of measuring instruments the NMI also carries out numerous type tests of measuring appliances. This partly takes place within the frame of the European guidelines which state what measuring instruments must adhere to in order to be sold freely on the European market. Especially foreign companies use our expertise and facilities to have their products tested. In that field we have become more or less a gateway to Europe."

Horizon

Rolf Muijwijk can boast a large experience in the measuring business. After his studies at Leiden University where his major subject was thermometry, his first project became the construction of the standard of length. Later on the management of the standards of mass, force and pressure were added.

"During my career," Rolf continues, "I have met with a diversity of metrological subjects. That widened my horizon considerably and it also formed a good basis for my present work as staff member at the Van Swinden Laboratorium. It so happens that my job here is generally a coordinating one. Among

other things I manage the secretariat of the Board of Experts for National Standards. This board was set up as an advisory board for the Minister of Economic Affairs. Furthermore, I give advice on parts of development, especially in multi disciplinary matters. One example of this is an addition to the development of a standard for the conductivity of fluids.

In order to show everybody within the NMI what the various departments are working on, I began writing columns at one time for our personnel magazine. This led to a regular stream of quite interesting subjects. After a number of small stories had been printed in our paper, the idea was born to issue a special booklet. It was not my own idea, but it did give me a lot of pleasure."

Issue

Two years ago the first copy of the booklet "Weet wat je meet" (Know what it is you're measuring) with its subtitle "Stories on weights and measures" by Rolf Muijwijk came off the press. The publisher is Aramith in Bloemendaal. In 23 chapters numerous pieces of information about metrology have been gathered in rather a lucid manner. Subjects such as the history of measuring, controls, normalisation, name giving and equipment are all dealt with. Funny anecdotes enlighten the richly illustrated booklet.


"It does not contain just my own stories", the author explains, "but also some by others. Specially for this issue I edited these stories and went into more depth. The publication of the booklet led to quite a few positive reactions, while at the same time a considerable number of nice reviews appeared in various magazines and papers. A further effect was that I was invited to give talks and an official lecture within the scope of general studies at the University of Groningen. Besides I was addressed by individuals, which sometimes led to heated debates especially on elements

such as mass and weight. By the way, together with the publisher, the NMI also went through some lengths to enable the publication of the booklet".

Metrical system

Through the booklet it is clear that the author is a true follower of the metrical system and how he can be quite annoyed when running into alternative measurements as are used in the world of printing. The introduction of the phenomenon of desk top publishing (dtp), where inches were reintroduced, deserves no praise at all, in his view. "We have been working with metric measurements for the last two hundred years.



Only in the world of the printers, however, they still use the measurements of the sixteenth century. A sad affair. For the other sectors business, especially within Europe, is a lot better. All European countries are on the same frequency where normalisation is concerned. Early in the nineties in Paris we were given the third international verification of mass standards. At that time the national standards of some 40 countries were compared with the international prototype. Where measuring is concerned, it is very important that everyone speaks the same language. But, this unity is threatened by the influence of the United States. So, we will have to pay more attention. Especially the international differences between the dot and the comma being used as decimal signs in numbers lead to confusion. In England, such matters are regarded as cultural heritage, which still is a predominant sentiment. With us in the Netherlands such sentimentalities seem less important." 





Discovering the Mammoet Mega Trailers

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In 1998 a new series of documentaries will be broadcasted on Discovery Channel, first in the U.S.A. and later on in Europe and the Far East. Mammoet's Self-Propelled Modular Transporters play a substantial role in the episode "Mega Trucks" of the popular Discovery series "Extreme Machines". Mammoet Mail sees producer Alice Harper from Pioneer Productions who ties up the final cut in an editing suit in Carnaby Street. She tells us how she got track of the Mammoet Mega Trailers.

MAMMOET NEWS

London - "I can't exactly recall how we managed to get hold of Mammoet. Anyhow, Hannah Corcut, my researcher — she has the task to find the best of everything: the fastest, the biggest, the tallest and so on — showed me "Road to Red Dog". It was slightly old-fashioned looking and grainy but it didn't matter to me because the images were so impressive. Then I started looking at the Mammoet brochures and saw the still photos of "Bullet on the Run" in Malaysia. I immediately rang her and said: "Hannah, I don't suppose there is any chance that anyone has filmed anything of this, but please check." To my big surprise we received a fantastic bag with film from Mammoet Amsterdam, not only about the transport in Malaysia, but on other big loads as well. I immediately knew I could do a whole item on Mammoet."

Alice Harper explains she has only two weeks for filming and that includes travel. "It's not enough to make a documentary of an hour. So we do rely on getting very good footage that was shot previously and then I concentrate on getting the footage that we couldn't have shot, like for instance the Iveco company who went round the world and Mammoet. We do rely on that but it also has to be of a high standard. Having said that, there are actually two reasons that Mammoet is in the series "Extreme Machines". One is that it gives such a fantastic visual impact — everyone who has seen it, can't forget it — and two because it was shot on Broadcast quality video instead of home standard VHS.

Mrs Harper continues that she was impressed with the proper broadcast quality Mammoet is using and emphasizes that more companies should follow that. "The same visuals could have been as good on VHS, but then we would not be able to use them in the series." According to Mrs Harper the visuals will always lead the programme. "The quality of the footage that we are either able to get on the road for and shoot, or get sent, has to be of extremely high quality. When I come to edit the programme the pictures always take priority. If the pictures are good I always find something to say about them. It has to be a strong visually led series, particularly in America where they have hundreds of channels; you've got to get that viewer entertained. It is my personal view that we are not just making an entertaining programme, but must get their attention and try to educate them. We hope that the programmes do get good ratings and that they educate people as well. Science and technology is obviously important in the background, explaining how things work. But there is a limit to how much information you can get across to the viewer. You should never immerse them in lots of facts and figures. You have to choose the kind of information that comes across very carefully. You have to balance that with the pictures: so that you

are not saying one thing and looking at another."

Alice Harper sees her role as an intermediary between the viewer and the scientist. And being a woman, she thinks, helps in the communication. "Surprisingly, I'm very rarely patronised. May be it has to do with the fact that I don't find it embarrassing to walk into a place, talk to a technician and not understand him. Probably, they don't expect me to understand because I'm a woman, and so they take great pains to explain it all in clear language. For example, how to explain the workings of a hovercraft. I could not understand how it works unless I physically crawled inside the skirt. Wearing a smart suit, I had a huge cleaning bill and people kept saying that I was mad. But as a result we did some specialised filming inside the skirt and with the help of smoke you could see where the airflow went and how it went through the holes underneath the hovercraft. Some of that footage was quite spectacular. I often think that when I can understand it, the viewer will."

Pioneer Productions is an independent production company, specialising in science and technology programming. They are not tied to any particular broadcasting company. In Britain they make programmes for the BBC and Channel 4 and many programmes are being made for Discovery in America. Mrs Harper explains: "Last year the first series of "Extreme machines" was commissioned and the programmes were so successful, that Discovery asked us to make a second series, of which this programme on mega trucks is the second one. We make a 52 minutes international version and then America cuts it down to 47 minutes. This is done for the advertising, so that the European version is slightly longer and it is revoiced with an English voice-over. And of course, Dollars are turned back into Pounds. The series is presold all around the world, it goes everywhere, even to Australia and Asia."

Alice Parket gives a last remark about the interview she had with Ron Elliott of Mammoet Transport (UK) on the SPMTs: "Sometimes the people I interview are coming across as very stilted and formal. They are so scared to say something they will get into trouble about. Or they talk in corporate language and neither of those things makes a good interview. Discovery insists, and I agree with that, that all interviewees should be passionate. When you are going to talk with them about machines they have to be enthusiastic and they must be interesting to listen to. Now Ron Elliott was a wonderful example. I asked him the same question four or five times to get the proper length. He answered clearly and precisely, without watching his back if he was saying anything that was against the party line. You could tell he came from a very happy company." ❀

Breda - The following Demag cranes were added to Mammoet Stooft's fleet of lifting equipment:
a 400 tonne AT type AC1300 with 58 metre telescope boom and 78 metre luffing jib;
a 300 tonne crawler crane type CC1800 with 60 metre main boom and 66 metre luffing jib;
a 800 tonne crawler crane type CC2600 with 78 metre main boom and 78 metre luffing jib.
All machines are equipped with superlift attachment.



Jensen Beach - The following excerpt was taken from a letter of recommendation from the St. Lucie Nuclear Power Plant: "The purpose of this letter is to recognize your crew's efforts and accomplishments in off-loading, transporting, rigging, lifting and placing two original and two replacement steam generators at St. Lucie Plant. Your crew's knowledge and expertise allowed this project to accomplish the heavy rigging of these four steam generators in less than three weeks, well ahead of schedule."



Singapore - Walter Wright Mammoet has purchased a hydraulic gantry system for the lifting, shifting and placement of oversized items onto foundation. The unit is a four-legged lifting system capable of lifting 450 tonnes to a height of 10.3 metres.



Breda - Mammoet Stooft in Breda was subjected to a certification audit by TUV Nederland and the Stichting Certificatie Kraanverhuurbedrijf (SCK). In this audit the three quality systems that Mammoet Stooft uses were scrutinized in an integrated examination on their workability. As a result, the company's certification according to the norms of the SCK was once more renewed as well as the ISO 9001 certificate and the safety certificate for contractors (VCA).



Amsterdam - In December Mammoet Shipping has been approved by Lloyd's Register Quality Assurance to the ISO 9002 certification and Document of Compliance for the office organisation in Amsterdam. The Mammoet Shipping branch in Seoul followed with ISO 9002 this February and Mammoet Shipping London will follow shortly. Furthermore, the Safety Management Certificate was awarded to the m.s. "Happy Buccaneer".



Lifting operation

Mammoet has erected a refinery column of 101 meters long and weighing 1000 tonnes at a grass root plant in Tuban, Indonesia. Messrs Satoshi Sato and Tsuyoshi Fujita of JGC Corporation in Yokohama relate something of this extremely interesting project. "The main product of the complex, which is to be one of the biggest in South East Asia, will be olefins and aromatics. As you know there is a great demand for olefins on the world market. Apart from the utility facilities on site, loading and unloading facilities have to be constructed."





"The HydraJack system gives a very controlled lift and has an excellent reputation in the industry. Very good machinery and ... people."



Over the years, JGC has designed and constructed a vast number of plants, mainly in the petroleum refining and petrochemical business. The know-how and engineering capabilities acquired by JGC are applied to facilities in numerous industrial endeavours with gratifying results. These include energy-related plants, living facilities and so forth, and environmental conservation facilities.

in Indonesia

"A very efficient system, easy to control and simple."

Tuban/Yokohama - On the use of the Mammoet HydraJack system they have the following comment. "This method of lifting was selected on the basis of previous experiences in Japan and in Malaysia. We did not want to take any risk and we know the HydraJack system is a proven lifting method. The work concerns lifting and positioning of the core equipment of the project. Moreover we wanted to avoid to rent a heavy crane for a long period. Of course we considered field erection, however, in constructing the column piece by piece we could have encountered some problems with the welding."

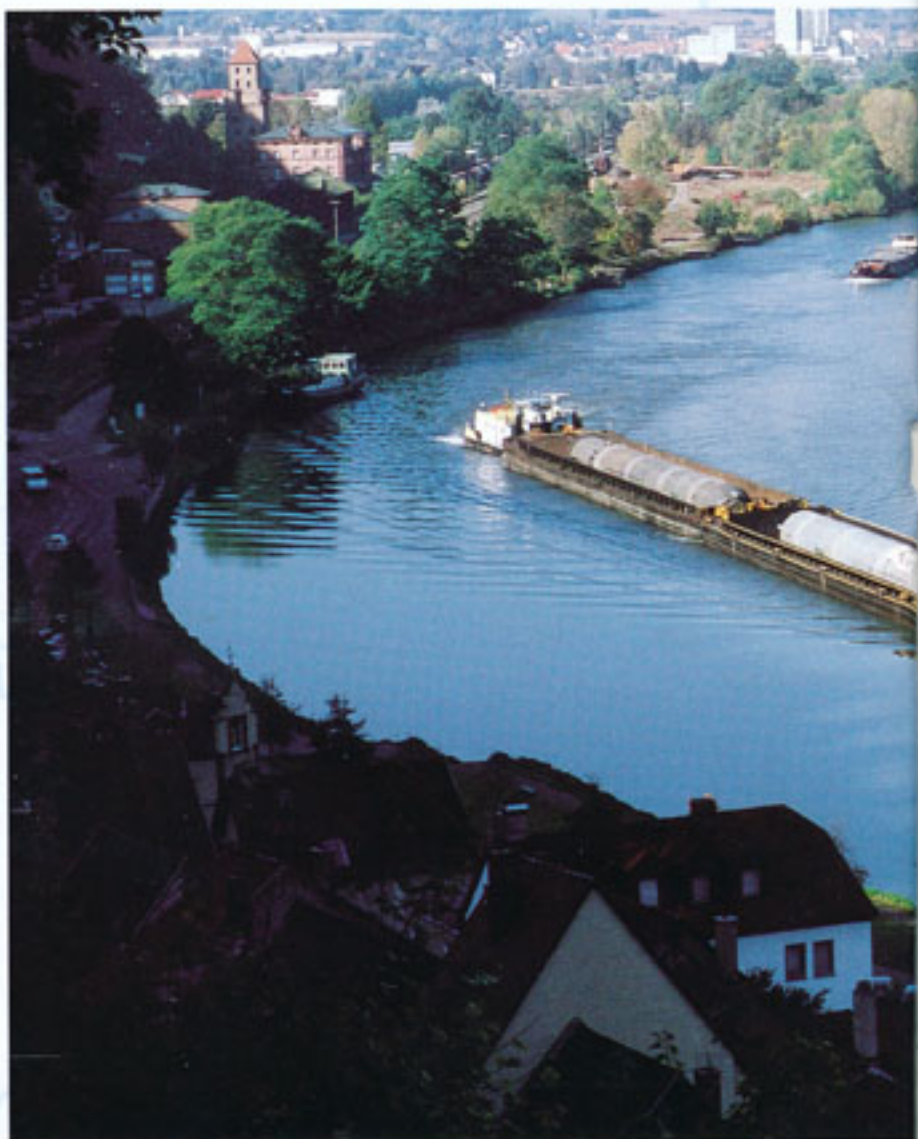
Mr Sato recalls the lifting operation in Yokkaichi where Mammoet executed a HydraJack operation on Japanese soil for the first time. "When we work with foreign people, there sometimes is a language barrier. Particularly for us Japanese people it can be difficult to explain ourselves. But exchanging thoughts among skilled people is very easy. Very good relationships were established during the previous projects with Mammoet and it was a keypoint in the consideration to do it in this way."

Mr Fujita refers to the fact that Mammoet Shipping's "Happy Buccaneer" took care of the shipment of the column from Korea to Tuban anchorage. "We booked m.s. "Happy Buccaneer" almost 10 months ago and she is one of few

vessels in the world who can load and unload the column with her own cranes. I started working for JGC six years ago, but I have known Mammoet much longer as a professional company in the field. Schedules are mostly very punctual and they are technically very, very good. We employed three vessels for the project: "Happy Buccaneer", "Project Europa", and "Envoyager". In spite of the fact that JGC asked a lot from Mammoet, all schedules were met punctually."



Three LC-fining reactors, weighing 1200 tonnes each, were transported from Japan to Slovakia: integrated transport from beginning to end, extending over half the globe. Mammoet Shipping's "Titan Scan" delivered the pressure vessels at the Port of Rotterdam, where an offshore crane ship took care of the transshipment of the load onto river barges. The barges were towed via the Rhine, Main and Danube to Bratislava. At the quay of the Bratislava shipyard the new MSG 50 was erected to transfer the 60 metre long vessels onto Mammoet's SPMTs. Transportation, partly over public roads took place in the night. Once arrived at the Slovnaft refinery the remaining distance was travelled by daylight. In the mean time the MSG 50 was relocated and used to take care of the subsequent erection and final positioning onto foundation of the vessels.



The Bratislava project





slava



factory to foundation

BioTra		HEAVY LIFTING & TRANSPORT	
Model	Capacity	Max. Lift	Max. Length
SSG 50	5000T	5000T	5000T
PROJECT		SSG 50	
TITLE		MAIN BOOM AND JIB CONFIGURATION	



The Bratislava project

factory to foundation

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The MSG 50 lifting system was recently added to Mammoet's integrated heavy lift services. This revolutionary lifting/skidding machine was used in Bratislava for the unloading, erecting and positioning of the 1200 tonne pressure vessels. The entire lifting system is containerised - all mast sections are equivalent to the size of 20' containers - while the revolving counterweight exists of 20' containers on site to be filled with sand. Fast and cost-effective mobilisation is carried out by using regular container lines and flat bed trailers anywhere in the world.

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PROJECT	SSG 50	ISSUE NO.	01
DATE		ISSUE NUMBER	50001
BY		REV.	0

PHILIPPINES 2000



"It was President Fidel V. Ramos, elected into office in 1992, who put the Philippine economic machine into high gear. His plan

'Philippines 2000' is an attempt to bring the country into the ranks of the industrialised countries by the year 2000." This statement is given by Dirk Jan Barreveld, who has been living in the Philippines since 1987 and was recently appointed to the new Walter Wright Mammoet subsidiary in the Philippines as Branch Manager

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Cebu - "At the time, Ramos quickly saw that the whole Philippine population needs to be assembled under one umbrella if you wish to achieve something. Improvement of image was essential and that could be done by raising the income per head to at least US\$ 2000.-. That had to do with the requirements of the World Bank with a view to concessional loans. This was the initial plan behind Philippines 2000, but it turned out that the idea was economically impractical. Thus the thought became adapted in time and 2000 dollars was converted to the year 2000 to be able to maintain the slogan."

Originally, Walter Wright Mammoet Philippines was housed in Manila,

but recently the company moved to Cebu. The idea to do so came from Dirk Barreveld, who was of the opinion that a heavy lift company would be better situated in Cebu. "With hindsight, this was an extremely good decision and for the following reasons. Take the map of the Philippines and you will see that Cebu is centrally placed in the archipelago and therefore the logical spot to have your basis. It is also important that costs are considerably lower than in Manila, where the traffic is congested and people are stuck every day in two to three hour traffic jams. That's truly a disaster". According to Barreveld it is of great importance when starting a new office, to make your name known outside the usual work. "In the past months we went into the field and visited everybody we can think of. And in the next months we will keep doing that. The power industry is an important sector not just for the Philippines but for the whole of South East Asia. We start with identifying the projects and subsequently we get in touch with all the parties involved when finally we meet the forwarders. Before the company is working smoothly, we have to go through these phases. In fact this is the sowing before the harvest."

The Philippines consist of a total of close to seven thousand islands. That does complicate transport considerably. "It means that the



mobilisation of equipment involves a lot of sailing time from one island to the next. There are only a few ports, so we quite often end up on a rickety pier or a small beach to unload cranes and trailers. Roads are heavily underdeveloped which implies that every enquiry requires a route survey. And these are fairly complicated surveys to make. It is hard to find out what the carrying capacities of the bridges are. Wherever you go — even in the most remote places —

you will find wires and cables across the road. They all have to be measured. And when talking about power projects, something else is important. A number of large projects — conventional power plants of 500, 1000 and 1500 Megawatt — are mostly situated at the coast. Alternative sources of electricity are geothermal and hydro energy, in other words, controlling steam from the earth or water from the rivers. These power stations are by definition built in the volcanic mountains which are problematic places to reach with heavy transport; these projects are absolutely no simple matter."

Dirk Barreveld underlines the key points of the power industry. "The present situation is this. The deficit of electricity in the Philippines is caused by two problems. At about the same time as when Aquino came to be president the first nuclear station was delivered. She was dead against nuclear energy and therefore the plant was mothballed. It had to be the largest power station of the country and when that project was cancelled there was a hole in the planning of many thousands of megawatts. Later on, this deficit was never properly compensated, with the result that in 1990 Manila only had power for twelve out of twenty-four hours which was mostly at night. So, everything was down in the daytime. And since everything was arranged centrally, hardly anything worked. When Ramos



According to Dirk Jan Barreveld the time of diesel power plants is over and presently the last of this type is being finished. "Only a few coal-fired base load plants will be added and then the hydro plants are all the rage. Already forty hydro plants have been ordered, which are mostly on the tops of the mountains. The higher, the better and we have already received enquiries for transports per helicopter. After America, this country has the second highest capital invested in geothermal energy. As a consequence, a huge net of substations must be built and that includes that the price per kilowatt invested capital raises. But since exploitation costs are low, this investment is earned back in the long run."

came to power he had to find a solution as a kind of guardian angel. And that was the major boost behind his privatisation scheme. He was helped very well by the IMF and the World bank. There were enough rich families in this country who picked up the items they liked. The first private power plant was built within eighteen months and was delivered in '92. This was a 200 megawatt plant owned by the Lopez group who mainly specialise in electricity generation.



Sulphur - Bob Higgins has been a well-known expert in the lifting business for over forty years. He was a lifting consultant for Walter Wright Mammoet on many projects from 1986 onwards and supervised numerous lifting operations in Singapore, Hong Kong, Indonesia, Malaysia, Thailand, Brunei, Bangladesh and Dubai. Getting on a bit, but not retiring for a long time yet, he tells about a life of lifting.

"Guy derricks, you know, were my first blood." Bob Higgins refers to a job he was doing for Walter Wright in Bangladesh, when he heard that Mammoet had taken an interest in the company. "We had a large job in Chittagong going and we were very pleased when we heard the news. At that time (1986) Walter Wright had had a couple of shaky jobs and they were not too well off. There was no way of buying new equipment and we were rocking on with what we had. When Mammoet came in the picture we were able to upgrade our equipment and also upgrade the projects which we could become involved in."

Bob Higgins is a self-made man. Together with his wife, he lives on his spacious country estate in Sulphur, Louisiana. The fact that the estate is situated right on top of an oilfield is a mere coincidence.

"When I was 14 years old I went into the oilfields. I worked my way into a roughneck's job, which paid pretty good money at the time. That was back in the depression days. From there I went in the Standard Oil refinery for the MW Kellogg company. That's where I became involved in cranes. Crane involvement then wasn't too much: the only thing we used a crane for was to put a pole up, so that we could put up the mast of our guy derrick. From that particular project I went to Abadan in Iran. I was 20 years of age then and it was my first foreign assignment. It was a very large job: we built twenty one refinery units in the Abadan refinery, which was one of the largest in the world. But there again most lifting was done with poles and guy derricks. That started me in the industry. After that I became involved in a job in Bolivia. There were some cranes involved: yet they were not very large and nothing like you see today. A 40 ton crane was a monster then. Yes, I've seen the cranes grow in capacity. The Manitowocs and Americans were getting bigger and bigger in the fifties and suddenly we did all the lifting with cranes instead of poles and guy derricks."

Mr Higgins built up his experience in lifting as a rigger, learning it the hard way. "I had structural engineers questioning me 'where did you get your degree' and I answered; 'I have no degree'. I'm very capable of doing a certain amount of structural engineering. Of course it is all based on tests and when you know the quality of the steel you know for sure the weight it can support." Having been independent most of his life: "I refuse to ally myself to any one company, because that would result in a dull position. I want to do something exciting and I want to do something nobody else can do."

On the question where it will end, he responds: "The capacities of these cranes are basically what they are because of their demand for that capacity. You would not have cranes of thousands of tonnes, when there were no lifts that size. I do not see any limit yet as to the size you can go to. I think there is still room for larger capacities. Also on the transport side the techniques are getting more sophisticated. Everything runs back to economics of course. When you look at a particular lift, not only how you do it reflects your skill, but also how much it cost to do it. Because if you give me unlimited money, I can put a man on the moon. To perform a lift in the most economical manner, that is where the skill is. Of course you have to keep safety in mind; one accident and you're out of business." ☐

A life of lifting

"Men and clients must have confidence in you. If they don't, you cannot do your job. A crane driver knows that I will stop him when he does something wrong."

St. Lucie Steam Generator Replacement Project



The replacement of two steam generators at the St. Lucie power plant last year in Florida was the result of a remarkable piece of transport engineering. A temporary lifting device (TLD) was purpose built to erect and position the generators with a weight of 550 tonnes each. After the exchange the old generators were shipped by Davenport Mammoet to a waste disposal site.



St. Lucie

Steam Generator Replacement Project

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Jensen Beach - The exchange of two 550 tonne nuclear steam generators was the resultant of extensive engineering. Off loading, transporting, rigging, lifting and placement of the two old, original and the two new, replacement steam generators was carried out at the St. Lucie Nuclear Power Plant in a combined operation by Mammoet Stooft and Davenport Mammoet. Especially the rigging of these four steam generators which each had an overall length of 62 feet was a remarkable operation, witnessed late last year by Mammoet Mail.

Max Bingham - For Mammoet Mail, the meeting with Max Bingham, SGT Director of Projects, was a meeting of old acquaintances. He had been interviewed before at the exchange of steam generators for Wisconsin Electric at Point Beach. On our request he compared the two power plants.

"St. Lucie is a 839 megawatt plant versus a 550 megawatt plant at Point Beach. A major difference is the weight of the vessels and of course the access in the containment. At Point Beach we were going in at ground level and it was a two-piece replacement. Here the opening is at 60 ft above ground level and it is a one piece replacement. Huge differences, also regarding the gantry as the rigging here is more complicated. We have a temporary gantry outside and on the

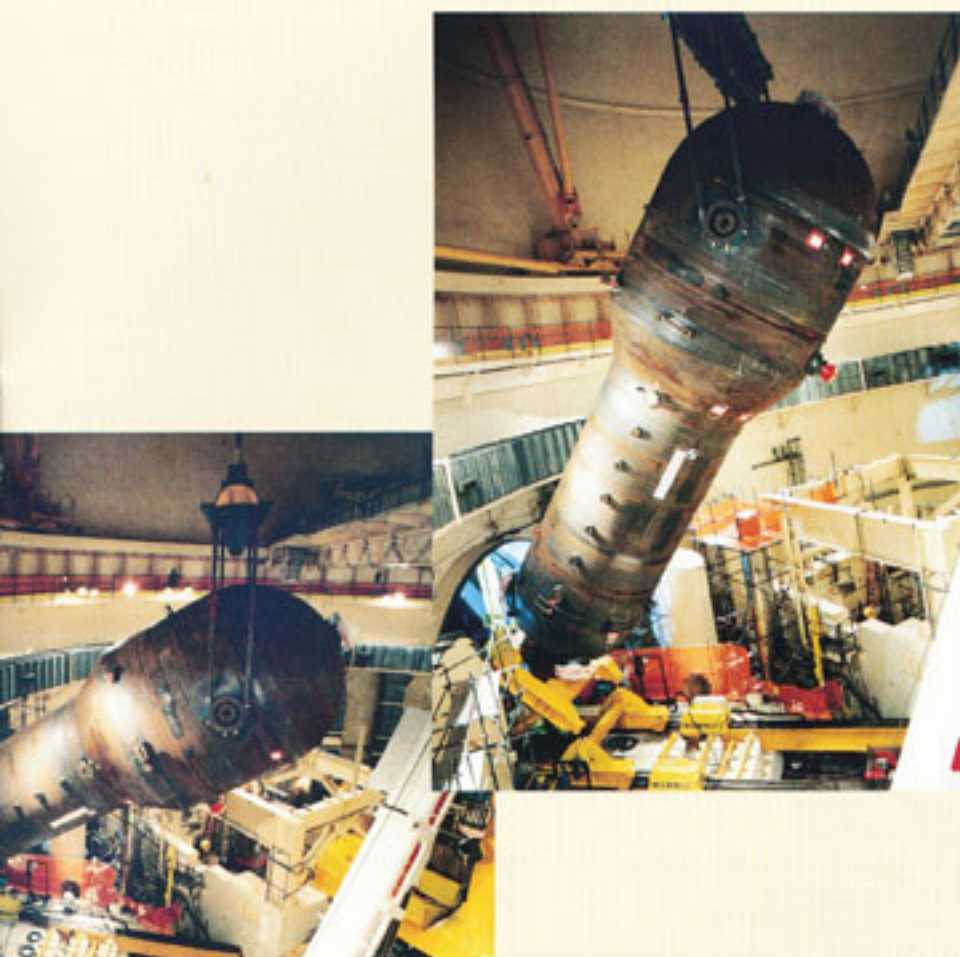
inside of the containment we had to put up all the steel for the temporary lifting device. That's already a significant rigging operation before you come to the real show. We had to use a 250 tonne crane just to set up the steel."

He favours the HydraJack lifting system: "I like the simplicity of the design. Everything is all pinned, so you are not spending a lot of time with bolts and bolted connections. There is a lot of thought put into your design. When we were finished up in Point Beach, we came down here in January 1997. We had a lot of work to do, completing all the work packages, getting all the material in order and then making some decisions such as doing the TLD load test outside. That saved us at least two days."

Extensive engineering

Safety is paramount for all parties. Especially in the nuclear industry. "We put a high emphasis on safety. When you look at the job during the outage phase, the risk area is getting the TLD up and into position. And after that cutting the pipe, changing up to the generators and taking down the TLD again. Once you are into that position you got most of the risk behind you. All by all, it was a very complex operation with a lot of engineering involved."





Dick Daly - "The whole operation went extremely well. By tomorrow the second generator will be sitting down and by next week you will be taking the TLD (Temporary Lifting Device) out there. The teamwork between the SGT (Steam Generating Team), FP&L and Mammoet was excellent. I was very happy with the cooperation of the Mammoet people. The way the equipment is assembled and the ease of putting things together ... you can see that these people know what they are doing and that they have pride in their work." These words come from Dick Daly — Steam Generator Replacement Director for FP&L (Florida Power & Light) — expressing his feelings during the last phase of the steam generator exchange operation. Being an expert on the matter, he explains how a nuclear power station works and tells some amazing facts.

"The longest run of the plant is 502 days. Imagine a machine running at full steam for more than 500 days. Without stopping and with full power. Not many machines can do that. Aeroplanes, ships, nothing can. Only a nuclear plant is capable of doing that."

Chemical attack

About the problem which caused the exchange of the steam generators: "The water comes in

through thousands of tubes which are part of the primary system. Caused by chemical attack over the years these tubes are cracking and are getting degraded. Another principal reason for the deterioration of the tubes is not maintaining the right chemistry on the secondary side of the system. The primary system is more forgiving in the chemistry than the secondary system. About ten years ago using these chemicals became a really big problem over here. You have to realise: chemistry is a very critical factor to how long a steam generator will last. Depending on the amount of conductivity they calculated certain action levels. The plant will actually be down if some of these chemistry parameters reach these action levels, in order to protect the steam generator. Then they conduct an internal inspection and look inside every single tube and plot it out. Over the years they start to plug the bad ones. When you got a large number plugged, in this case 25%, then it is no longer economical to run the plant. The technology to inspect the tubes has improved considerably. Over the years better chemistry control was developed and that's why the steam generators in unit 2 don't have that problem."

"you can see that these people know what they are doing and that they have pride in their work."

At the yearly lunch meeting of the Dutch British Chamber of Commerce in Hotel Krasnapolsky on 27 November 1997 Mammoet Ferry Transport, a daughter company of heavy lift specialist Mammoet Transport B.V. in Amsterdam, received the runner-up award in the Anglo-Dutch awards for Enterprise in the category Large Dutch Companies.



MAMMOET FERRY TRANSPORT GETS



Lorraine Stanton receives the Anglo-Dutch Award from the Secretary General of the Ministry of Economic Affairs

"People trust us, that is what it comes down to."

Amsterdam/Deeside - With some 400 tilt trailers Mammoet Ferry Transport organises ferry trailer services between the Continent and the United Kingdom with cargo ranging from plastic granules and reels of paper to car parts and machine spares. The company now employs 70 people who are housed at seven places in four countries, i.e. Europoort, Zeebrugge, Duisburg and, in the U.K., Deeside, Cumbernauld, Felixstowe and Hull. The company's exceptional growth has made Mammoet Ferry Transport's red trailers familiar sights on the roads in the United Kingdom and the rest of Europe. The company was started twenty years ago with ten trailers and only three staff, two in the Netherlands and one in the U.K. Presently, Mammoet Ferry Transport is one of the largest Dutch-owned ferry trailer companies.

The runner-up award, sponsored by Unilever, ABN-AMRO Bank, Tulip computers and Raleigh Holland, was handed over by Prof. Dr. Schweder van Wijnbergen, Secretary General of the Ministry of Economic Affairs. The first prize was for dredging company Van Oord ACZ, who had won the runner-up award five years before.

Part of the judges' report reads: "This company is proven to be exceptionally innovative in the Dutch - British trade with the result that it grew by 100% in five years. This time, Mammoet Ferry Transport came out second, behind an exceptional winner, but we do not doubt that one day, Mammoet will come home with the first prize for entrepreneurship."



AWARD

Extensive footwork

"So I gave it a thought again . . . We are a good, strong company and it was just a case of finding the time to sit down and put forward the presentation". Lorraine Stanton, Commercial Manager of Mammoet Ferry Transport in Deeside and responsible for overall sales in the U.K., tells about the extensive footwork that had to be done to achieve the runner-up award of the Netherlands British Chamber of Commerce.

"For a number of years they have had these awards for enterprise where it just gives companies more of a profile, presenting themselves being a successful company. They don't favour any one particular sector of industry nor any size of company, they promote Anglo Dutch relations. I've been involved in it before and I must admit that it was very much a last minute thing; we were not even members of the Chamber, but to win a prize you don't have to be. They don't preclude any company or organisation at all; it would not matter for instance if you were making nuclear explosives or boxes of chocolates."

Mrs Stanton explains what criteria were set down to compete for the award. "You have to demonstrate the success in the areas they stipulate. They wanted to know what your environmental stand was, the growth you have shown, how you develop people, the sort of customer base you have and at the same time

they wanted to see that over a four-year period, and these happened to be our most progressive years."

The Netherlands British Chamber of Commerce is very active in promoting companies on both sides of the North Sea. "A lot of what they do is supporting people; they not only give you leads for business, they are also able to lobby in certain areas where trade is important."

"It is a people's business and we have a strong organisation on both sides of the water. Our customers recognize that we are a "people" business. It is not just our own staff and colleagues, and it is not only our customers, it is our suppliers as well. We are important to them. We employ a lot of drivers who rely on us for their income. The way we look after them is important. It clearly shows people that we know what it is about and what is important. This partly contributes to the success of the company. People trust us, that is what it comes down to."

Lorraine Stanton concludes with: "One of our strengths really is the fact that we are a very strong Anglo/Dutch company and through our parent company Mammoet Transport in Amsterdam, a worldwide one. Our roots are absolutely Dutch and the developments we have had in the U.K. demonstrate the true sort of concept of Anglo/Dutch business. It is not just about reciprocal trade, its about people. That message came through clearly."

MAMMOET FERRY TRANSPORT GETS AWARD



Mammoet Ferry Transport obtained the S.Q.A.S. (Safety Quality Assessment System) certificate last October. It took almost 12 months to put the procedures for it in place. The Quality Assessment is issued by the European Chemical Industry Council. The areas covered are for instance management responsibilities, training, risk management and control. It makes the company aware of its weaknesses and also of its strengths.

Gordon Hughes is Managing Director of Mammoet Ferry Transport U.K. Ltd and has been with the company since the start in 1983. Mammoet Mail speaks with him at the end of the year just before Christmas about the prospects in the ferry trailer business, unavoidably interrupted from time to time by the continuing daily business. Intertwined is the despatch of a large number of SPMT axle lines from the job site in Scunthorpe to Bratislava, where the Slovnaft project will be rolling after an initial delay.

"We have ten trailers standing by in Scunthorpe to bring the SPMTs over to the Continent as soon as they have finished the job. I think we are loading nine SPMTs today and seven tomorrow. We bring them to the Europoort where Mammoet Stoof takes care of further transport to Bratislava." According to Gordon Hughes, there is a tendency among their customers to work with one dedicated party for haulage. "The movement towards single sourcing amongst Mammoet's clients seems to be increasing. For a particular Scottish client we now carry all the European traffic, including Scandinavia and Ireland, which are not the markets we normally serve. You have to do that, because when you

restrict yourself it damages your overall business. This particular client perceives the benefits in having only one contractor, who is just coming in and picking up any load. We operate a shunt vehicle on site — so if they have a load for Scandinavia, they can put it on a Mammoet trailer and send it out. We take it to our depot and tranship it through a subcontractor to get the load to the right destination. We provide this service and obviously they are not having invoices from twenty or thirty different suppliers and are not being let down as many times. The service we give them is of an extremely high standard and the client is very pleased with it. Of course the pressure is on us to make sure that subcontractors don't let us down. We are now going on with a self-billing system and the idea is to have one invoice per month eventually. You can see the advantage for the client; all the paperwork is drastically reduced."

Rate of Exchange

Mr Hughes emphasizes that the ferry trailer business is evolving. "We have a small consolidation department in Deeside and two weeks ago on a Friday they did seven trailer loads which were

made up of about twenty six consignments. Their aim is to do ten on a Friday. We combine as best we can, so that Europort and Zeebrugge can deliver them as logically as possible. There is one thing that has a really big impact on our business and that is the rate of exchange. Last year (1996) was really good for us in the UK because the Pound at one time touched a low of some 2.48 Dutch guilders. It is now hovering around 3.40. UK exports are beginning to halt slightly and we're noticing that volumes are dropping. West bound rates have been forced up again, so we are back to an imbalance situation."

"At the beginning of the week we have too many empty trailers in the South East of England and we are not able to back load all of these. Later on in the week we can back load them, but if the pressure of West bound traffic is large, we have to ship them back empty. That is now the biggest problem. If you deliver to huge conurbations like the greater London area, then for every 10 loads that go in, probably only one or two at the most come out. Another problem we have in the UK is the shortage of quality haulage, particularly in the South East. We have a great deal of difficulty to obtain additional haulage at peak times. And it is forcing the prices up, it is certainly

something we are very much aware of. We have taken steps to remedy the situation."

Ferries

The recent mergers between the ferry operators affect Mammoet Ferry Transport's business as well. "A few years ago you saw more ferry operators coming into the market. All kinds of sailings were offered out of Hull, Immingham, Felixstowe, Ipswich, Harwich, Sheerness. One by one, these operators were being taken over and now there are definitely less players in the market. Ferries are going out full, both ways, and recently they were able to acquire an increase on the rates."

Mr Hughes continues to say: "Our biggest market still is Germany; both to and from. Germany still is the U.K.'s largest export market within the EC. The last few years we used to carry a lot of raw products like finished steel, tapered steel and bearings. We moved away from that business and we now carry a lot more finished goods, more than we have ever done before, which suits our operations because we have our own warehouses in Zeebrugge, Duisburg, Europort and of course the one new location in Cumbernauld. So that makes the transhipment of loads a lot easier."



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Starting business on 1 April 1998 Mammoet Ferry Transport will have an additional stronghold in the neighbourhood of Lyon in France. The new company will start working with six people and is part of Mammoet Ferry Transport's integrated European ferry trailer services.

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A new record in the US Gulf load-out market

At the yard of Omega Service Industries a 2300 tonne load-out took place for Snyder Oil Corporation Offshore. This module is a main unit in their largest production facility, which was put in on location by floating offshore crane. The facility will produce both gas and oil in the Main Pass 261 "A", approximately 100 nautical miles South-East of New Orleans, Louisiana.

New Orleans - The SOCO platform was fabricated by Omega Service Industries, a full service contractor that provides both onshore and offshore construction, including electrical and instrumentation services. As a matter of fact Omega provides complete turn-key services to meet all the needs of a fabrication project.

Davenport Mammoet was involved in the preparations in the early stages of this record-breaking load-out. On the day of

the job, 69 axle-lines SPMT were brought into action together with 16 axle-lines of conventional platform trailers. Detailed planning and preparation enabled the whole operation to be carried out in just a couple of hours. Mr Thomas Wacks, Vice President of Operations SOCO and Mr Patrick Verret, Project Manager of Omega thought the load-out handled by the Mammoet crew went very "professionally and smoothly".



Mammoet in Focus



San Nicolas - A 745 tonne weighing coal unloader was shipped from Krajevica to San Nicolas in Chili beginning of this year. It was the maiden voyage of mv "Sailer Jupiter" of Mitsui OSK Lines, one of the series of four newbuildings.

Yokohama - The loading operation at Yokohama of an 826 tonne regenerator with a length of almost 38 metres. Mammoet Shipping's "Happy Buccaneer" signed for the loading in Japan and the unloading in Port Dickson, Malaysia, using the ship's own gear. A reactor vessel of 552 tonnes with a length of 9 metre was also shipped on the same route.



Brisbane - Last year Mammoet Shipping's "Happy Buccaneer" shipped a 1050 tonne coal unloader from Brisbane to Dalrymple Bay. The ship's 1100 tonne cranes took care of the loading and unloading.

Panama - The mv "Happy Rover" carries on one of her first voyages two large cranes through the Panama Canal. The cranes with a weight of about 400 tonnes each were loaded at the port of Ferrol in Spain with the ship's own lifting gear and brought under the hook by Mammoet's SPMT's. The unloaders will be used at the coal handling facilities at the Chilean ports of Patache and Mejilones.



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