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CONTENTS

Nedlloyd

Mammoet Transport is a company of the Royal Nedlloyd Group.

Met ingang van 1 maart 1989 is de heer H.P.J. van den Bovenkamp benoemd tot directeur van Mammoet Stoof B.V. in Breda. Zijn voorganger, de heer C.W. van Gorp, heeft een funktie elders binnen het Nedlloyd Concern aanvaard.

From 1 March 1989 Mr H.P.J. van den Bovenkamp has been appointed Managing Director of Mammoet Stoof B.V. He has succeeded Mr C.W. van Gorp, who accepted a position elsewhere within the Nedlloyd Group.

Van de redakteur

In dit nummer van Mammoet Mail wordt aandacht besteed aan een aantal wijzigingen in de Mammoet organisatie.

Allereerst worden in een interview met de nieuwe algemeen directeur van Mammoet Shipping de achtergronden belicht van de fusie tussen Mammoet Shipping B.V. en Hansa-Linie A.G. Deze samenvoeging garandeert de continuëring van de aktiviteiten op het gebied van de zware lading vaart en biedt uitstekende toekomstperspecteven. In de praktijk is er echter weinig veranderd: de operationele en commerciële aktiviteiten worden als vanouds vanuit het Mammoet Shipping kantoor in Amsterdam verzorgd.

Deze verzelfstandiging van Mammoet Shipping heeft wel geleid tot de verplaatsing van de hoofdzetel van Mammoet Transport B.V. naar het kantoor van Mammoet Stoof in Breda. De algemene leiding van Mammoet Transport geschiedt voortaan vanuit deze plaats.

Verder wordt in dit nummer ruim aandacht geschonken aan een aantal interessante aktiviteiten die Mammoet in de afgelopen maanden heeft verricht. Zoals bijvoorbeeld de verbouwing van een voetbalstadion in Eindhoven, waarbij de kranen en trailers van Mammoet Stoof een hoofdrol speelden in een zeer krappe bouwplanning. Ook de Mammoetvestigingen in Singapore, Frankrijk en de U.S.A. leverden redaktionele bijdragen die zeer de moeite van het lezen waard zijn.

Het totaal-pakket aan transportmogelijkheden dat Mammoet waar ook ter wereld kan aanbieden, uitgevoerd door specialisten met jarenlange ervaring is ... en blijft de sterke grondslag van dit bedrijf.

Tot slot moet nog worden vermeld, dat Mammoet van 1 t/m 4 mei present is op de O.T.C. tentoonstelling in Houston (stand no. 4227/6). Hier vindt u een presentatie van de Mammoet aktiviteiten, in het bijzonder van het dit jaar uit te voeren 'Red Dog' project, waarbij de zware-lading schepen en de zelfaangedreven platform trailers een hoofdrol gaan spelen.

Tot ziens in Houston.

From the editor

In this issue of Mammoet Mail we will pay attention to some changes in the Mammoet organisation.

Firstly the background of the merger between Mammoet Shipping B.V. and Hansa-Linie A.G. is highlighted in an interview with the new Managing Director of Mammoet Shipping. This merger guarantees the continuity of the activities in heavy lift shipping and offers us great perspective for the future. In practice little has changed though: the operational and commercial activities are still organised from the Mammoet Shipping office in Amsterdam.

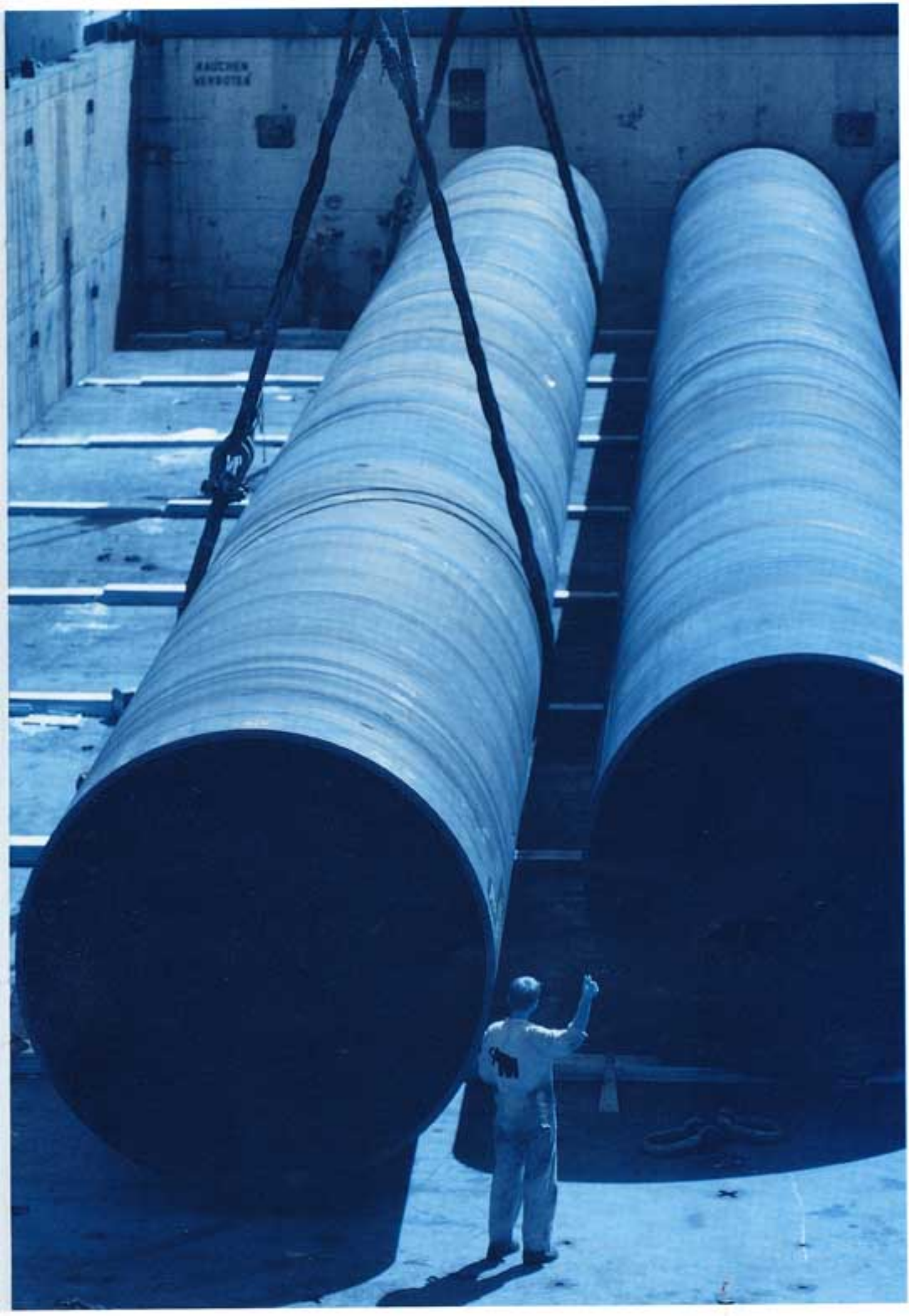
The independence of Mammoet Shipping lead to the main seat of Mammoet Transport B.V. being moved to the office of Mammoet Stoof in Breda. Henceforth the general management of Mammoet Transport will be carried out from there.

Furthermore, in this issue a lot of attention is paid to various interesting activities that Mammoet has accomplished over the last few months, such as the renovation of a soccer stadium in Eindhoven, where the cranes and trailers of Mammoet Stoof played a leading role in a very tight construction planning. The Mammoet offices in Singapore, France and the U.S.A. have also supplied their editorial entries, which are well worth reading.

The overall package of transport possibilities that Mammoet can offer anywhere in the world, executed by specialists with years of experience is ... and remains the strong basis of this company.

Last but not least, we can inform you that Mammoet will participate in the O.T.C. in Houston from 1 to 4 May (stand no. 4227/6). Here you will find a presentation of Mammoet's activities, especially concerning the Red Dog project, which will be performed this summer, with the use of our heavy lift vessels and self-propelled modular trailers.

See you in Houston.



Towards the end of last year Mammoet Shipping and the German shipowner Hansa Linie combined their heavy-lift shipping activities. Mammoet Transport took a fifty percent share in the combined fleet, which is now being operated under the well-known name of Mammoet Shipping. What was the real reason for the merger and what will change due to the cooperation of both companies? An interview with the new Managing Director of Mammoet Shipping, Mr H.A. van Gorp.

Mammoet Shipping th

'I don't believe that we as Mammoet Shipping, with almost fifty personnel and two vessels would have stood a fair chance of surviving in this world. We would have been too small to react adequately to the market. That is why the merger came into being.' Mr H.A. van Gorp is convinced that the knot tied with Hansa will prove its usefulness. As a former Technical Director of Nedlloyd Fleetservices, he was appointed Managing Director of Mammoet Shipping in Amsterdam alongside Mrs G.J.M. van Veen and Mr B.J. Bekker. Mr Bekker will enter into early retirement in July of this year. By the way, Mr Van Gorp has a double responsibility since he is also Managing Director of Mammoet-Hansa-Linie A.G. in Bremen together with Dr P. Holtappels.

The commercial and operational affairs of the combined fleet are being managed in Amsterdam along the very same lines of the pool agreement between Mammoet Shipping, Hansa Linie and Sloman Neptun, agreed upon some years ago. According to Mr Van Gorp, that pool agreement, known as Mammoet Heavy Lift Partners, played a major part in the realisation of the merger. 'To get a good picture of the reasons for the new joint venture, it is important to go back a few years. Some four years ago the heavy lift market was rather poor and some shipowners decided to join forces and create a pool. Slowly but surely the market improved and in 1988 Mammoet Shipping reached a fairly good position, mainly due to the effectiveness of the pool.

RULES OF THE GAME.

The participation in Mammoet Heavy Lift Partners, Mr Van Gorp

rives by merger

says, was so much to the liking of the partners, that the basic concept has remained unchanged. 'The pool is a good formula. When the pool was established a construction was chosen that was satisfactory to all parties concerned and has remained so to this day. The basic recipe of the pool was a succes and we therefore wish it to survive. The present agreement will expire at the end of 1989 and this year we will extend the pool agreement with five years. Besides, one needs at least 10 vessels to cover the market worldwide. With less, more enquiries have to be turned down. With more vessels, more enquiries can be accepted. One can operate more like a liner company. Again, if we hadn't been able to take over the German vessels, Mammoet Shipping would not have been able to survive. Two ships mean nothing in the heavy-lift market.'

Bearing this in mind, Mr Van Gorp likes to keep the pool accessible to potential new partners. Shipowning companies can hand the commercial responsibility over to the pool, but remain responsible for maintenance and continuity of the vessels. 'In principle the pool is open to new partners. There is a possibility to work with third parties. Commercially, a new partner can join forces, without the other pool partners interfering in their financial business. However, those who do enter must keep to the conditions of the agreement.' These conditions state that every vessel in the pool is valued according to her capacity, cubic metres under deck, loading equipment, ro/ro possibilities etc. After deduction of the costs, the revenue of the pool is shared by the partners following a scale of points. 'A fabulous system', says Mr Van Gorp.

RED DOG PROJECT.

In the first instance clients were taken aback when Mammoet Transport acquired half the shares of Hansa-Linie and Mammoet Shipping became part of the latter. How would the service change and would the connection with land transportation remain intact? In other words, would Mammoet still be able to offer a complete package for contracts such as the Red Dog project? In this particular case Mammoet will supply the land as well as the sea transportation for a complete installation of a zinc mine from the Philippines to Alaska. Mr Van Gorp visualises no negative consequences for the customers in the new situation. On the contrary, possibilities will sooner increase. 'Of course Mammoet will remain a 50 percent shareholder in the new combination and moreover a project group has been formed for land and sea transportation to coordinate all projects. The cooperation will be even more decisive than before. The fact that the company has now gained more independence is even more advantageous, because they can now look at their own revenue. That doesn't mean that there are no ties anymore. We will not hesitate to join forces. However, sometimes only land transportation will profit and in other cases only the sea leg will benefit. In these cases it is wiser to let the competitor take the losses. Close cooperation is only possible if it is profitable for both companies, if it has an added value.'

FLEXIBLE

The Mammoet Shipping fleet now consists of eight vessels. Mammoet entered the merger with the flagship 'Happy Buccaneer' and the 'Project Orient' and joined six Hansa vessels. According to Mr Van Gorp, the fleet will not yet be extended by newly built vessels. 'At the moment we have eight vessels with an average age of six years. In the heavy-lift market the economic life cycle of the vessels is about fifteen years. So we can sustain ourselves for another ten years. Besides, in view of the development of freight rates it is

interesting to keep the ships in the pool. We expect that the quantity of cargo will increase in the forthcoming three to five years and since there is no overcapacity, freight rates will probably rise.'

Our vessels are being used for the transportation of heavy pieces and project cargo. All vessels have their own loading gear, ro/ro possibilities and a tween deck. This offers us a huge variety of possibilities: we can carry a great variety of heavy cargoes; on deck we can carry a complete 'factory' and below deck the pipes and other parts. In short, we can offer a complete package per vessel. I think that our share of the market is large and wide. But this does imply that you can call at various ports on a regular basis.' This means that the organisation must be backed up throughout the world by sales offices that are, according to Mr Van Gorp, 'extremely flexible'. 'In liner services you can work with fixed offices and agencies, but in heavy transport we must look at the world-wide developments. At the moment, for instance, the market in the Pacific Basin is growing. Depending on where projects develop, we must cover the market with our own local offices.'

QUALITY

Under the leadership of the commercial operator Mammoet Shipping in Amsterdam, the sales offices will have to try and trace all projects at an early stage. Internally, projects are divided into four phases, the last of which is transport which has then usually already been granted. Yet the progress of a project is closely monitored because it sometimes turns out that Mammoet's services can still be needed. 'But', Mr Van Gorp adds, 'it also happens that the transport is only granted during the very last phase. The most favourable situation is of course to detect plans at the earliest stage, so that we can contact engineering offices or national ministries. So there must be good interaction between the agencies. They are constantly being fed with data by the head office and are requested to look into these matters. Besides, they can report on new projects. With our organisation we must work on one product: the transport of heavy pieces and project cargo. We shall have to supply quality in our work in order to maintain our reputation as a renowned and reliable heavy lift ship owner.

Electric loc's to the Far East

In Marseilles a shipment of 18 electric locomotives was recently loaded on board the m.v. 'Happy Buccaneer'.

This shipment is part of a contract for the transportation of 170 locomotives to Xingang, China, which was completed this year.

After Marseilles the 'Happy Buccaneer' sailed to Rijeka, Yugoslavia, where three container cranes were loaded for Bangkok.

Orient Express to Europe

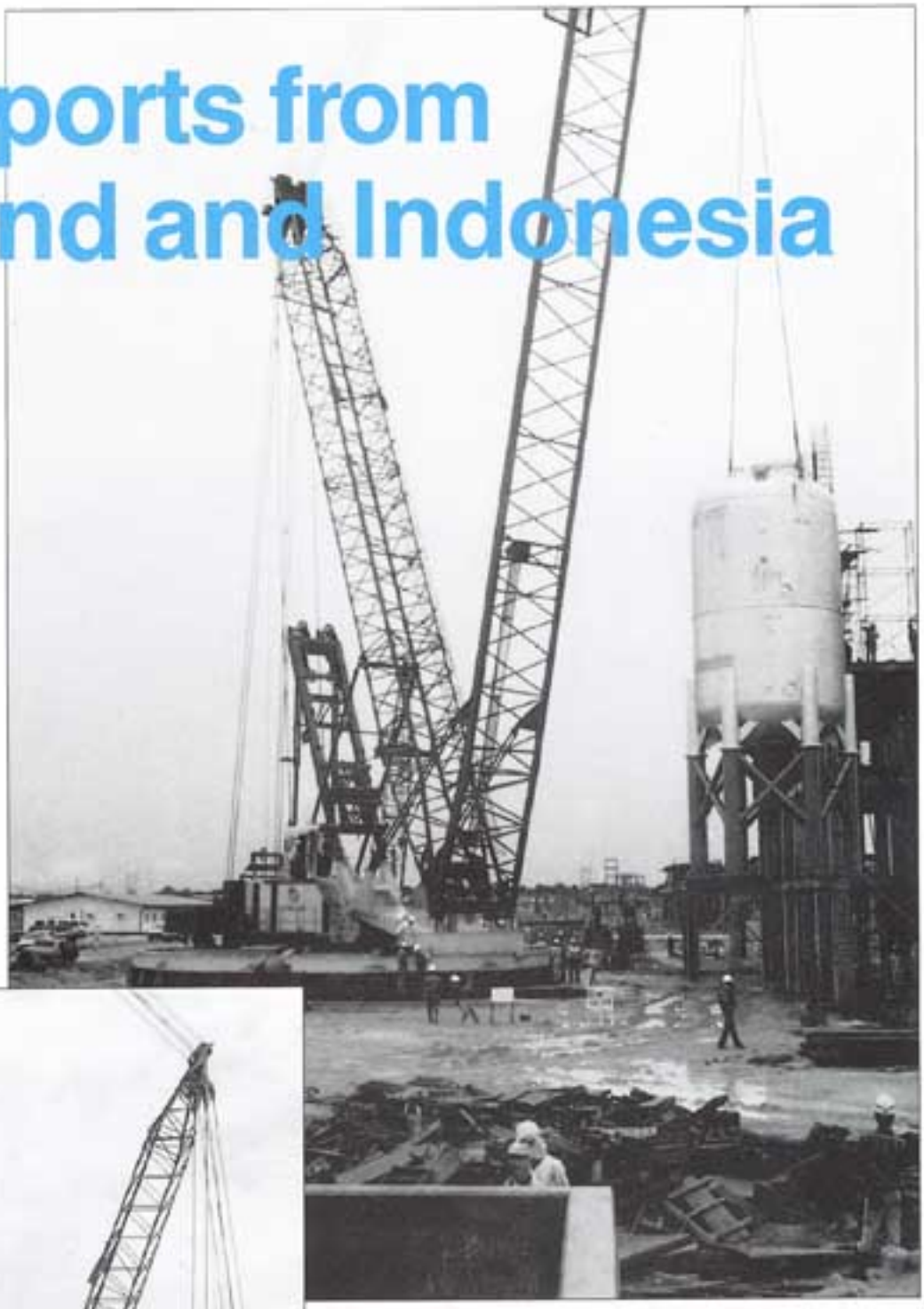
The heavy transport vessel 'PROJECT AMERICAS' delivered 16 rail–cars in Hamburg, that had been shipped from Japan. The cars date back to the 1920's and last year they travelled 15.000 km from Paris to the Far East as the 'Orient Express'.

Job reports from Thailand and Indonesia

In Mammoet Mail 13 we mentioned Walter Wright Mammoet's involvement in the N.PC. Olefins project in Rayong Province. Since then, Walter Wright Mammoet have been involved in a great deal of cranage on this project.

In the same area and at the same time 15 vessels were erected at the V.C.M. plant by WWM's M4600 ringer crane which was used to overcome the problem of reach. The crane did not have to be moved to install all 15 vessels which did prove its flexibility. Of course, not moving the crane also reduced the time needed for installation.

Towards the end of last year Walter Wright Mammoet received a request to investigate the temporary removal of a damaged urea reactor in a live plant in Palembang, Indonesia.



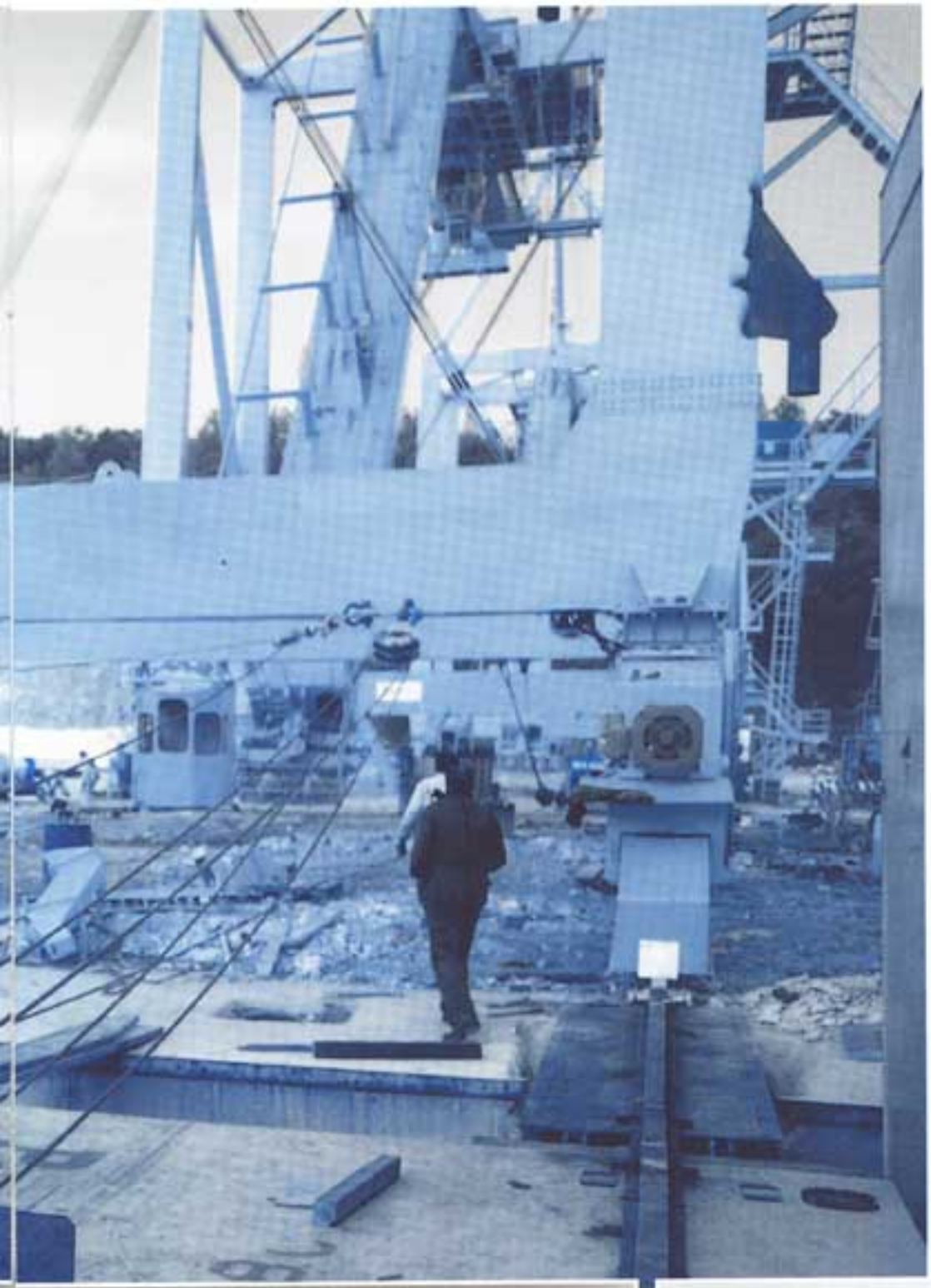
The delivery of a new reactor would take 12 months. Therefore it had been decided to repair the existing unit by cutting out the damaged section.

A survey revealed that it was the perfect job for WWM's new M4600 ringer crane, since access to the reactor was very limited.
Another problem was the water table of only one meter, so that the ground was not suitable for bearing the pressures of the crane in operation. Therefore, the area was drained at three points around the crane location to keep the water at an acceptable level.

The 380 tonne reactor was lifted and placed on rollers in a horizontal position so that repairs could be carried out. After completion of the restoration the reactor was re-erected in its horizontal position.

The very tight time schedule was met: from signing the contract to the actual lifting operation, only 14 days had been allowed for mobilisation, but finally the project was completed ahead of schedule. The repaired reactor has been put back into service until the new reactor arrives.

Transportation of port installations: a Mammoet speciality



Throughout the years Mammoet has been gathering quite some experience in the movement of various types of port installations such as container cranes and ore unloaders.

Pictured on the cover of this magazine is a recent shipment of 3 container cranes from Rijeka, Yugoslavia to the port of Bangkok in Thailand.

The fully erected cranes were loaded via the stern of Mammoet's heavy lift vessel 'Happy Buccaneer' by a special ro/ro rail system. It is evident that loading and unloading form the most difficult parts of the operation.

Therefore Mammoet's engineering department meticulously calculate and prepare the entire operation from start to finish. Assisted by a sophisticated CAD (Computer Aided Design) system, various possibilities are tried out, linked up with Mammoet's diversified fleet and rolling stock.

Sometimes it is more feasible to ship port installations in parts to be assembled in the port of destination. Usually the loading and unloading operation can be performed by the vessel's own gear and in some cases this can go as far as the final assembling of the crane.

For relocation of cranes in a port without dismantling and re-erecting, Mammoet has also developed an excellent transport method. With the use of special jacking equipment and self-propelled modular trailers a complete crane can be lifted off the rails and wheeled onto a pontoon.

After towage to the new location, the operation is performed in reverse order and the crane is ready for use with a minimal waste of time.

Mammoet's engineering department can calculate the best method for any crane movement. It is thus best to contact them at an early stage.

JOB REPORTS

Mammoet Western has been even busier than usual lately with several interesting jobs. Some of these are mentioned in this issue of Mammoet Mail. The common factor in these job reports is Mammoet Western's 400 tonne hydraulic gantry system which can load, unload, erect and position heavy loads in the most confined areas.
This versatile gantry system plays an important part in daily transport and rigging activities, as you will see on the following pages. Six job reports from sunny California.

The total machine weight was 300 tonnes with a heavy lift of 75 tonnes, including the levelling and hydraulics installation. The project was completed within its time schedule of 10 days with the use of Mammoet Western's 400 tonne gantry.

2

A Pacific Hydraulic Press Brake with a 2000 tonne capacity used by Terex had to be moved to Square Took Corp. in Los Angeles, California. The Press Brake was quickly removed from railroad cars at a nearby team track, transported to the site, assembled and put into operation on its elaborate foundation in only 10 days.

1

The J.C. Banford Excavators Ltd Company of Rochester, England contracted Mammoet Western Inc. for the relocation of two 2500 tonne Truck Frame Presses from California.

This contract included many facets of Mammoet Western's services: the complete disassembly of both presses, with the use of Mammoet Western's 400 tonne gantry, the processing and packing for overseas shipment and the complete transportation to the Port of Los Angeles.

The total shipment involved nearly 800 tonnes with a heavy lift of 75 tonnes and once more the Hydraulic Gantry's versatility was proven in a limited working space.

Subject to a shipping deadline, the contract was completed well ahead of schedule with a total time span from start to delivery to the port of 20 days.

3

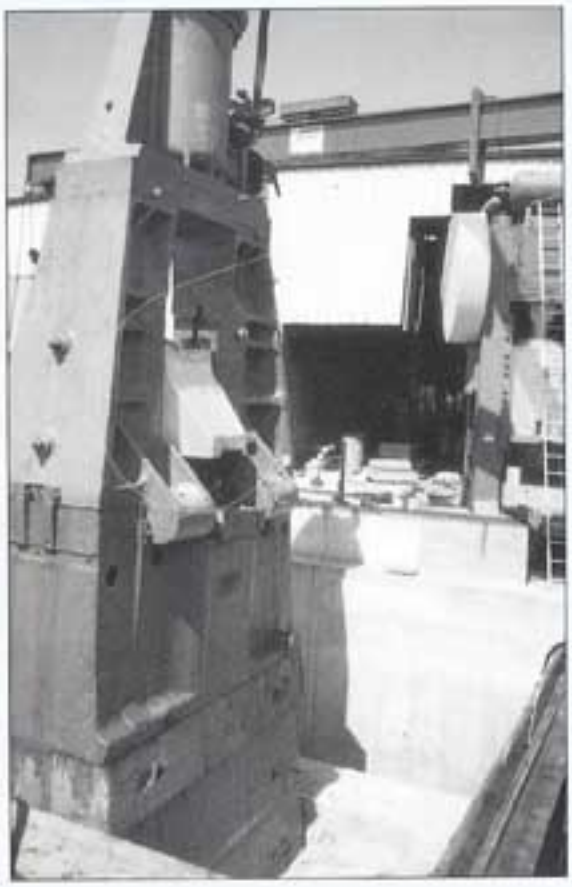
A new Hercules Titan Missile Fixture was lifted and loaded at its place of assembly. A lift of 74 tonnes with limited headroom required careful level handling which was skillfully accomplished by the use of Mammoet Western Inc.'s 400 tonne Hydraulic Gantry with upper propel cylinders. The total job took two days. The operation was performed in Riverside, California for M&T Inc.

4

McStarlite Corporation contracted Mammoet Western Inc. for the turnkey installation of a Lake Erie 2000 tonne Hydraulic Forming Press.

This project put all aspects of Mammoet Western's abilities to the test due to extremely confined quarters and a press that had been out of service and in storage for many years.

At McStarlite, Los Angeles, California, the foundation was built up on time. As soon as the concrete cure pressure was at the right level, the first piece was set. The press had a total weight of 400 tonnes with the heaviest lift weighing 100 tonnes. It was loaded from storage at Mammoet Western's terminal, transportated and installed, the whole operation being performed within 10 days. Due to the efficiency of Mammoet Western, the final plumbing, electrical and hydraulic rework and the start-up were also completed on schedule.



6

A steam-operated Drop Forging Hammer, with a 35,000 pound capacity, was recently erected at California Drop Forge, a division of Fansteel in Los Angeles, California. The total weight of the hammer was 700 tonnes with the heaviest piece weighing 200 tonnes.

The installation contract involved unloading all machine components at a railroad track nearby, loading parts onto trucks, transportation to the installation site, and the complete assembly on a totally unique foundation.

The foundation consisted of a large pit 36' wide (9.14 metres), 36' long and 36' deep with a large concrete 'Inertia Block' sitting on springs in the centre. The concrete 'Inertia Block' weighing some 1500 tonnes had been poured on the spot.

The Anvil Sections' were then stacked up by Mammoet Western, using the 400 ton Hydraulic Gantry.

The gantry system once again proved to be an efficient, cost effective method for lifting relatively heavy weights. This project was completed well ahead of schedule: it only took 15 days.

As an interesting foot note we may add that this machine had been disassembled in Chicago, Illinois by Western Industrial Movers before Mammoet Transport acquired the company. After dismantling, the machine was shipped to Pennsylvania for rework prior to installation by Mammoet Western Inc.

5

Recently Unit Drop Forge Inc. required the services of Mammoet Western Inc. for the excavation and transportation of a Drop Hammer Anvil weighing 150 tonnes. The hammer had to be removed from pit, loaded and transported by truck to a local team track and loaded onto a rail car. At extremely short notice, within 72 hours, Mammoet Western Inc. mobilized, moved, and secured the cargo on a 12 axle rail car. The anvil was urgently needed in Wisconsin, U.S.A. as a replacement part.

From Kobe to Sangatte

As you will know from a previous feature in this magazine, Mammoet has been involved in the Eurotunnel project when it transported the tunnel-boring machines (TBM).

The first TBM was the smallest with a diameter of 5.4 metres. It was shipped from Portland (U.S.A.) to Calais (France) on the heavy lift vessel 'Project Americas'.

Two larger machines, which will be used to bore the main tunnels, were collected in Kobe, Japan by the Mammoet vessels 'Project Orient' and 'Project Europa'.

For these shipments Mammoet was also contracted to perform the connecting land transportation to Sangatte. We received the following job report from Mammoet France:

In March 88 Kawasaki Heavy Industries in Kobe awarded Mammoet Shipping B.V. and Mammouth France a turnkey contract for the sea and land transportation of 2 huge tunnel-boring machines. The engines had to be shipped from their workshops in Higashiharima to the job site of Sangatte in France, for the tunnel between U.K. and France.

The cargo added up to some 25.000 cbm, 80% of which were heavy, oversized pieces weighing 45 to 385 tons.

In April 88 parts of the 'TBM 3' were sailed to Dunkerque on the heavy lift ship 'Project Orient'. Discharged in Dunkerque, wheels took over to carry the cargo to a factory 10 km off the coast. In this factory the drill was assembled and completed with French-made parts, after which it was tested. Then the machine was dismantled and returned to the port of Dunkerque where another Mammoet heavy lift ship took the cargo to the port of Calais.

In June 88, the heavy lift ship 'Project Europa' loaded the 'TBM 2' in Japan, where it had been manufactured. The ship sailed to the port of Calais, arriving on 27/07/88.

Each machine when fully assembled weighs 1.200 tonnes and is 13 meters long with a diameter of 8.78 meters.

Due to weight restrictions on the road to Calais, the machines had to be partly dismantled for transportation.

After discharge from the 'Project Europa' Mammouth France transported the machine parts piece by piece to the job site. There the parts were lowered into the shaft, 60 metres below ground level, by the 430 ton gantry crane on the site. Assembling the boring machine would take some 6 weeks after which drilling could commence.

Apart from the 2 TBMs Mammouth France also arranged the transportation of 2 series back-up gantries, produced by FCB in Dunkerque.
Each series consists of 13 gantries weighing 45 to 85 tons, being 18 metres long, 7.60 metres wide and 6 metres high. Since these gantries were relatively light, they could go to the job site by road from the Dunkerque factory, a distance of some 55 km.

Regarding the tunnelling machines, the main problem was the inland transportation of the 'TBM' from the port of Calais to the job site. The distance is only 15 km and the road looks wide and comfortable. But with a convoy 55 metres long, 8.78 metres wide and 10.45 metres high, carrying a weight of 535 tonnes (which includes the trailers) the matter is a bit more complicated.

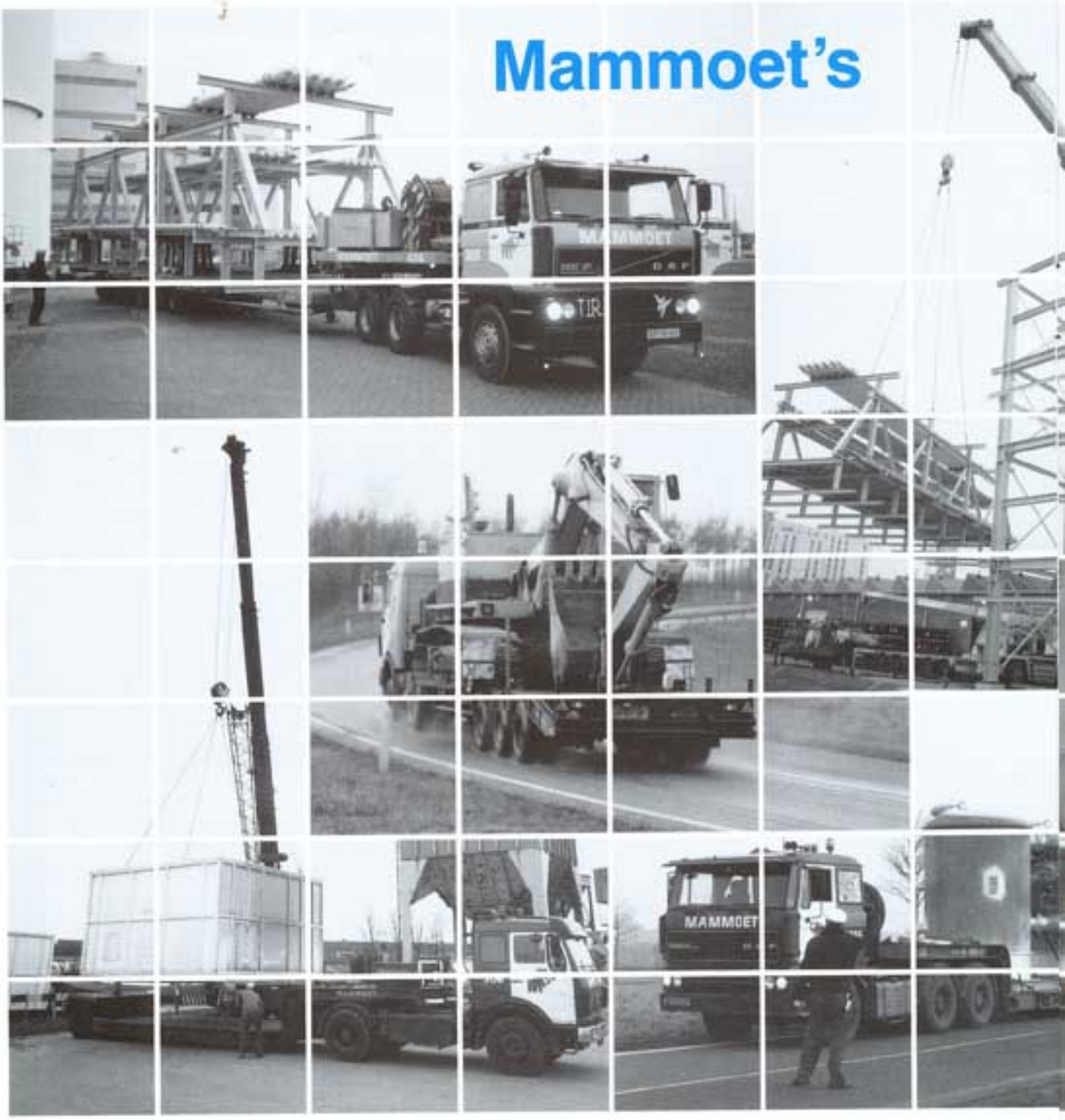
More than 1 million French Francs had to be spent to prepare the road: reinforcing a bridge, dismantling obstacles such as traffic lights and islands, leading electrical and telephone wires underground and of course informing the people of Calais in time about parking restrictions, etc.

Everything was ready in time.
When the convoy started to move, roads were closed by the police, who were informed via radio by their 6 colleagues escorting the convoy.
After leaving Calais, the National Road no. 1 was closed for a distance of 6 km and deviations were organized through small villages to avoid a traffic jam and long queues behind the convoy. In the beginning of August traffic to and from Calais is heavy because of the tourist season.

However, after 2 weeks of hard work, the 'TBM 2' was safely delivered to the jobsite.


MAMMOET

Mammoet's

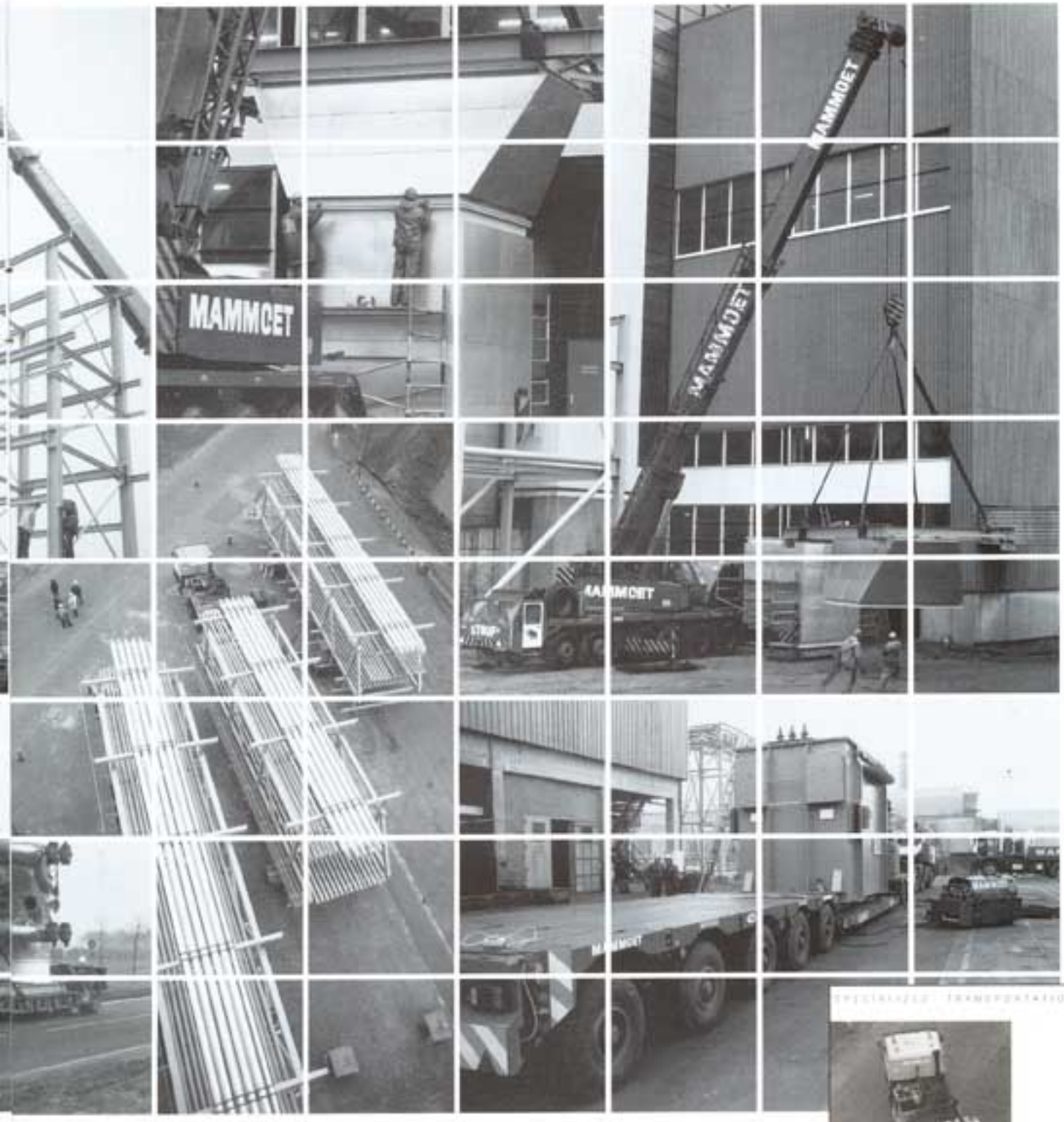


alles-laders

Er wordt veel gesproken over het verdwijnen van de Europese grenzen in 1992 en veel bedrijven maken zich op om dan in Europees verband te kunnen werken.

Dit geldt in het bijzonder voor het wegvervoer, al moet men zich realiseren, dat met het wegvallen van de grensformaliteiten de voorschriften van het wegtransport per land gehandhaafd blijven. Een transportbedrijf, waarvoor '1992' al lang van toepassing is, is Mammoet Stoof in Breda, die behalve het materiaal voor de bekende zwaar-transport projecten ook een uitgebreid wagenpark ter beschikking heeft voor het uitvoeren van (internationale) speciale wegtransporten. Dagelijks passeren diverse typen platte trailers, uitschuiftrailers, semi-diepladers, diepladers, huiftrailers en dollies de grens met een grote variëteit aan lading, van graafmachines tot ketels en machine onderdelen. Het grote voordeel van het Mammoet wegtransport is, dat er naast de vestigingen in Breda, Europoort, Sittard en Terneuzen in de meeste Europese landen eigen Mammoetkantoren zijn. Die kunnen lokaal het transport begeleiden en regelen alle benodigde vergunningen en ontheffingen (belangrijk voor speciaal vervoer) tot en met politiebegeleiding. Het rollend materieel wordt in eigen werkplaatsen onderhouden en voor buitenmodel transport worden de trailers aangepast.
Daarbij verzorgt Mammoet Ferry Transport een ferry trailer service vanuit de belangrijkste havens in Nederland, België en Groot-Brittanië. Dankzij een recente uitbreiding van het trailerbestand is het aantal huiftrailers nu gestegen tot 230.

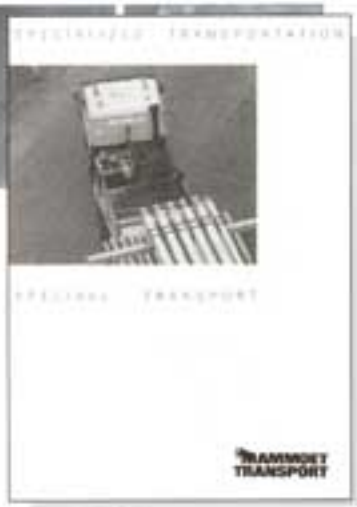
Voor uw volgende transport is het de moeite waard, kontakt op te nemen met Mammoet Stoof. Van de aktiviteit 'Speciaal transport' is recent een aparte brochure gemaakt, die u kunt aanvragen bij de Mammoet Stoof vestigingen, zoals vermeld op de achterzijde van deze brochure.



multi-purpose loaders

Much discussion has taken place about the European borders being eliminated in 1992. Many companies are anticipating on working in a European style.

This goes especially for road transportation, although one has to bear in mind that the rules and regulations for road transportation of each country will remain as they are. A transport company that has been working across the boarders for a long time, is Mammoet Stoof in Breda. Apart from the equipment for the well-known heavy transport projects they also own a vast array of trucks and trailers for (international) special road transportation. Every day various types of flat-bed trailers, extendible trailers, semi-low loaders, lowloaders, tilt trailers and dollies cross the border carrying a large variety of cargoes, from excavators to boilers to machine parts. A major advantage of transport by Mammoet is that next to the offices in Breda, Eurpoort, Sittard and Terneuzen, you will find Mammoet offices in most European countries. They can supervise the transport and they will apply for all necessary licences and exemptions (very important for special transport) including the arranging of police escorts. The maintenance of the rolling stock is kept in house and for outsized transport the trailers will be adapted. In addition, Mammoet Ferry Transport operates a ferry trailer service from the most important ports in the Netherlands, Belgium and Great Britain. A recent increase brought the number of tilt trailers to 230.



For your next transport it will be worth your while to contact Mammoet Stoof. A special folder was made recently, that can be sent to you by all Mammoet Stoof offices, mentioned on the back of this brochure.

During an integrated transport by land and by sea Mammoet recently moved a 610 tonne predressed Isostripper column from the construction hall of the R.D.M. in Rotterdam, The Netherlands to the Conoco refinery at South Humberside, United Kingdom.

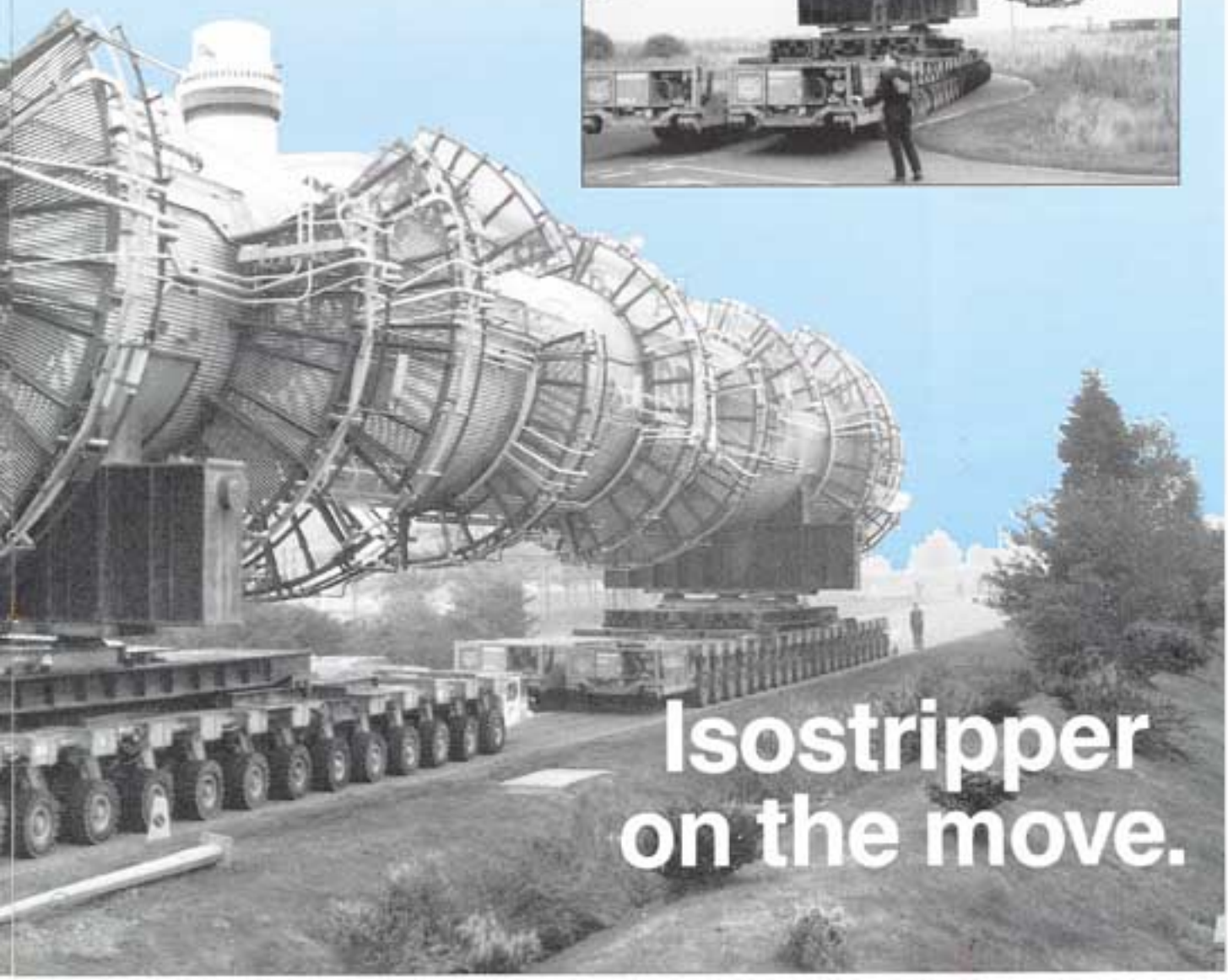
After weighing, the 75 m. long column was rolled out of the construction hall, where it had been built in a record time of nine months. It was brought within reach of two floating shearlegs, which shifted it onto the heavy-lift vessel 'Starman Asia' which was moored at a deep water berth.

Mammoet's self-propelled modular transporters which were to be used for the connecting transport in the U.K., were also loaded here.

After a safe voyage the column arrived in Immingham and was unloaded by the ship's own gear directly onto the transporters. It took a 6-mile journey via narrow (public) roads before the column arrived at the Conoco refinery.

The column, constructed by R.D.M. department Energy systems, was fully dressed, complete with insulation, piping and landings and ready to use. R.D.M. mentioned in a press release that nowadays manufacturers tend to prefabricate this kind of equipment instead of transporting it in parts to be assembled on the site.

Once in operation the Isostripper will form the most important link in the destillation and separation of a vital component for the production of lead-free petrol.



Isostripper on the move.

Record gewicht in Hydrajack 'kabels'.

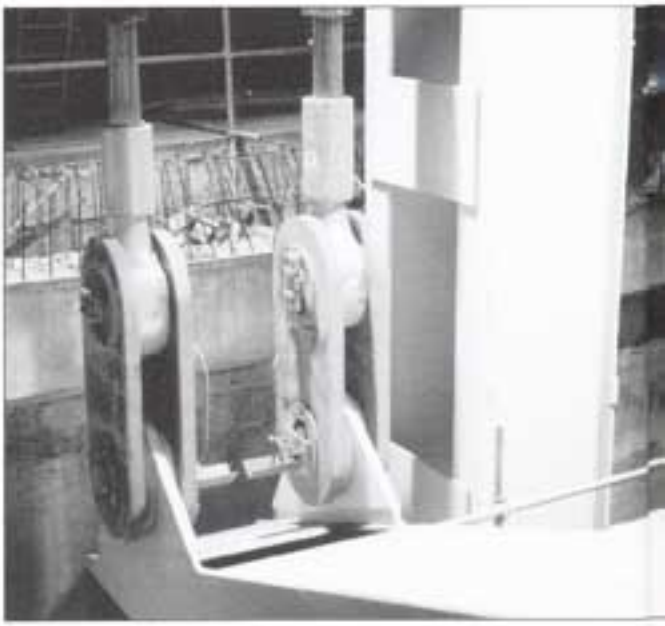
In opdracht van de firma Grootint in Zwijndrecht, werd recentelijk het Hydrajack systeem ingezet voor een spectaculair hijskarwei in Rotterdam, waarbij de tweede boog van de Van Brienenoordbrug werd geplaatst.

Het 300 meter lange en 5.040 ton zware tweelingzusje van de bestaande Van Brienenoordbrug werd in een recordtijd gebouwd in Zwijndrecht en door Smit Tak op twee pontons naar Rotterdam gesleept. Tijdens dood tij werd de brug tussen de betonnen pijlers gevaren, waarna de brug gekoppeld kon worden aan de kabels van de hefeenheden.
In totaal acht hefeenheden, op iedere hoek twee, verzorgden het benodigde hijsvermogen, waarbij de boog in etappes van 80 cm zo'n 18 meter omhoog werd gebracht.

Deze vlekkeloos verlopen hijsoperatie vergde de hele nacht, waarna de brug op een tijdelijke fundatie werd geplaatst. Een paar dagen later vond de officiële opening plaats door Minister Smit-Kroes, waarbij door een druk op de knop op het centrale bedieningspaneel van het Hydrajack hefsysteem de brug 10 cm zakte tot op de fundatie.

Het Hydrajack systeem is een veelzijdig hef- en sledesysteem, dat voor de meest uiteenlopende doeleinden kan worden ingezet.

In het verleden werden diverse bruggen gehesen en ook een aantal zware reactorvaten op raffinaderijen in Europa geplaatst. Binnenkort wordt het systeem ingezet voor het uitwisselen van een generator in Zweden. Volledige documentatie over dit systeem is bij Mammoet Stoof in Breda verkrijgbaar.



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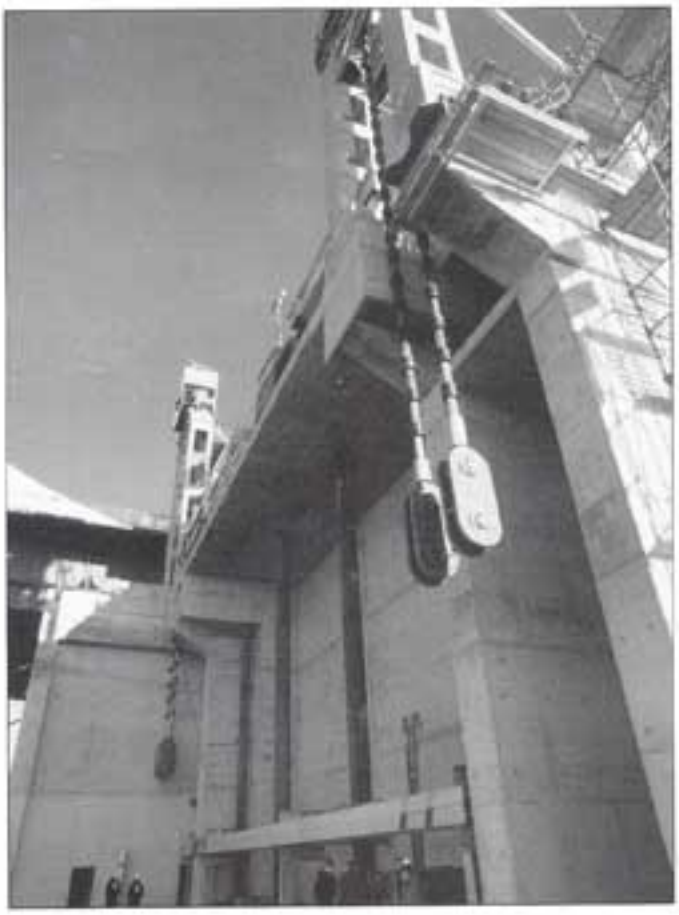

Recently, Mammoet's Hydrajack system was installed for a spectacular lifting job in Rotterdam. For Grootint of Zwijndrecht, Holland, the second span of the Van Brienenoordbrug was placed on foundation.

The 300 metre long and 5.040 tonnes twin sister of the old Van Brienenoordbrug had been built in Zwijndrecht and had been towed to Rotterdam on two pontoons by Smit Tak. During slack water the bridge was moved between the concrete pillars, so that it could be coupled to the cables of the lifting units.
A total of eight units, two on every corner, provided the necessary lifting power, bringing the span some 18 metres up, in phases of 80 cm.

This flawless lifting operation took all night, whereafter the bridge was placed on a temporary foundation. A few days later the Minister of Traffic officially installed the bridge, lowering it 10 cm and placing it onto foundation by pushing the button on the central control unit of the Hydrajack system.

The Hydrajack system is a multipurpose lifting and skidding system that can be used for a wide range of purposes.

In the past, various bridges have been lifted and also a number of heavy reactor vessels in refineries all over Europe have been placed onto foundation. Soon the system will be used to exchange a generator in Sweden. Documentation about the Hydrajack system can be obtained from Mammoet Stool in Breda.

Mammoet bouwt aan toekomst PSV

Het Philips Stadion Eindhoven, de thuisbasis van landskampioen en Europa Cup-winnaar PSV, is na afloop van de voetbalcompetitie een trekpleister gebleven. In de zomermaanden lokten echter niet de acties van Lerby, Vanenburg en Koeman de toeschouwers naar de Frederikstraat, maar stond de renovatie en nieuwbouw van de hoofdtribune in het middelpunt van de belangstelling.

Vorig jaar werden in een aantal betonnen pijlers van de hoofdtribune van PSV haarscheurtjes geconstateerd. Hoewel de aangetaste draagkracht geen direct gevaar opleverde, bleek een verbouwing op korte termijn onvermijdelijk. De Eindhovense club maakte van de nood een deugd en besloot over te gaan tot nieuwbouw. Na het onderzoeken van de mogelijkheden tot de bouw van een nieuw stadion op een andere lokatie koos men uiteindelijk voor de renovatie van de bestaande hoofdtribune.

De hoofdaannemer van het project, de Hollandse Beton Maatschappij, startte in januari van 1988 met voorbereidende bouwactiviteiten. Het bedrijf bleef daarbij met handen en voeten gebonden aan de lopende voetbalcompetitie en de Europa Cup-duels van PSV tegen Bordeaux en Real Madrid. HBM-projectleider ir. C. van Iwaarden: 'De wedstrijden moesten normaal doorgang vinden en dat betekende voor ons een extra handicap. De hoofdtribune moest intakt blijven. Wat we wel konden doen, was slopen wat gesloopt kon worden.'
Het volgende probleem voor Van Iwaarden ontwaarde zich toen de landskampioen op 1 mei z'n laatste thuiswedstrijd had gespeeld. Voor de sloop van de oude hoofdtribune en de montage van de nieuwe hypermoderne tribune restte de bouwers vanaf dat moment slechts drieëneenhalve maand.

Vanaf begin mei tot de dag voor de openingswedstrijd van PSV tegen AC Milan op 17 augustus hebben verschillende kranen van Mammoet vervolgens het beeld rond het Philips Stadion voor een belangrijk gedeelte bepaald. Op een zeer klein bouwterrein, bij wijze van spreken in de voortuin van de huizen van de Frederikstraat, manouvreerde dagelijks een aantal Mammoet-kranen. Eerst om de 80 ton zware betonnen spanten van de oude tribune te demonteren en later om de voorgefabriceerde kolommen op hun plaats te zetten. Naast de aanvoer van deze elementen was Mammoet eveneens betrokken bij de montage van de stalen tribune-overkapping en talloze andere hijswerkzaamheden voor de constructie van de 140 meter lange en zes verdiepingen hoge tribune.

Tribune is misschien niet meer het juiste woord voor het indrukwekkende bouwsel. In het nieuwe gebouw is een wandelpromenade met winkels en een souvenirshop aangebracht, zijn er kantoren, vergaderzalen, een restaurant en ruimten voor exposities en modeshows. De voetbalwedstrijden kunnen worden gevolgd vanuit sponsorloges en een business club-tribune. Het aantal plaatsen is na de verbouwing uitgebreid met 1000. De totale capaciteit van het Philips Stadion bedraagt nu 28.000. Het stadion zal in de toekomst niet alleen eens in de veertien dagen als trefpunt dienen voor de voetbalsupporters, maar ook gebruikt gaan worden als ontmoetingsplaats voor het bedrijfsleven.

Mammoet works on PSV's future

The Philips Stadium in Eindhoven, the home base of the Dutch National soccer champion and Europa Cup winner PSV, remained a focal point long after the final goal had been scored and the supporters had all gone home. However, it was not the performance of Lerby, Vanenburg and Koeman that drew the public to the Frederikstraat, but the building and renovation of the grandstand itself.

Last year hairline cracks were detected in some of the pillars supporting the PSV grandstand. Although the damages posed no immediate danger, renovation seemed inevitable. This inspired the club of Eindhoven to decide to build a new stand altogether. After investigating the possibilities of building the stadium in an entirely new location, they opted for renovation of the existing grandstand.

The chief constructor of the project, the Hollandse Beton Maatschappij, started the initial building preparations in January 1988. The company had to work around the competition and the Europa Cup leagues of PSV vv Bordeaux and Real Madrid. HBM project leader Ir. C. van Iwaarden: 'The games had to proceed normally and that created an extra handicap. The grandstand had to remain intact. All we could do was demolish what could be demolished.'

The next problem for Van Iwaarden arose when the national champions had played their last home game. The old grandstand had to be demolished and the ultra modern one assembled within 3½ months.

From early May until the day before the opening game of PSV vv AC Milan on 17 August, various cranes belonging to Mammoet were part of the daily scene at the Philips stadium. Several Mammoet cranes were operating together within the confines of a very small site, so to speak in the front gardens of the houses in the Frederikstraat. First they had to dismantle the 80 tonne concrete rafters of the old stand and later position the prefabricated columns. Apart from delivering these parts, Mammoet was also involved in assembling the steel roof of the stand as well as numerous other lifting activities needed for the construction of the 140 metre long and six floor high grandstand.

Maybe grandstand is not the correct word for this impressive construction. The new building houses a promenade with shops, including a souvenir shop, plus offices, conference rooms, a restaurant and ample space for exhibitions and fashion shows. In addition, the number of seats has been increased by 1,000. The total capacity of the Philips stadium is now 28,000. In future the stadium will no longer solely be the meeting point for soccer fans once a fortnight, but it will also be a meeting point for business activities.

Maatvervoer van betonbalken

Voor de montage van een brug over het Balgzandkanaal in Noord-Holland werden drie betonnen liggers en bijbehorend constructie materiaal in opdracht van Haitsma Bouwindustrie B.V. getransporteerd.

De betonnen liggers met elk een lengte van 51,50 meter, werden op een ponton vanuit Kootstertille in Friesland aangevoerd.

In de eigen werkplaats van Mammoet Stoof in Breda werden speciale transportjukken vervaardigd. Deze zorgden ervoor, dat de balken klemvast en onbeschadigd bij de bouwplaats arriveerden.

De 51,50 meter lange liggers werden door een combinatie van een drijvende bok met een 400 tons mastenkraan op hun plaats gehesen, waarna de montage van de windverbanden en bekistingsplaten zorgde voor de nodige stevigheid in de constructie.

De transport- en montagewerkzaamheden werden binnen de geplande tijd uitgevoerd.

Tailor-made transportation of concrete beams

For the construction of a bridge over one of Noord-Holland's canals, three concrete beams and the necessary materials were transported for Haitsma Bouwindustrie B.V.

The concrete layers, each 51,50 metres long, arrived from Kootstertille in Friesland by pontoon.

In Mammoet Stoof's very own workshop in Breda special cradles had been constructed. These were used to transport the layers tightly wedged and undamaged to the site.

The 51,50 metre long layers were lifted into their sockets with the combined strength of a floating crane and a 400 tonne mast crane. Afterwards the wind couplings and the casing were mounted in order to ensure the necessary sturdiness of the construction.

The transport and the assembly were carried out on schedule.

Endurance test 'R

This brand new trailer-combination has recently been subject to a 24-hour endurance test.

They form an addition to the presently available self-propelled modular trailers of Mammoet Stoof, and together they can carry a total of 7.200 tonnes.

The tested trailers can carry 2.000 tonnes (64 axle lines) and will be used for the transport of a modular ore processing installation in the Philippines and Alaska.

Nachtelijk hijskarwei

In de nacht van 1 op 2 oktober werd in Amsterdam een complete luchtbehandelingsinstallatie op het dak van het C&A gebouw aan het Damrak geplaatst.

Voor deze speciale hijsklus, die in opdracht van Holland Heating werd uitgevoerd, werd een 330 tons hydraulische kraan met beweegbare jib ingezet.

Naast de luchtbehandelingsapparatuur werd ook nog een tweetal noodstroomagregaten geplaatst.

Night lift

During the night of 1 October a complete air conditioning installation was lifted onto the top of the C & A building at the Damrak in Amsterdam.

For this special lifting job, which was an assignment commissoned by Holland Heating, a 330 tonne hydraulic crane with movable jib was used.

In addition to the air conditioning installation two emergency power stations were also placed.

Duurtest 'Red Dog' trailers.

Deze spiksplinternieuwe trailercombinatie werd onlangs in Dordrecht onderworpen aan een 24-uur durende continuegebruiks test.

Ze zijn een aanvulling op het bestaande zelf-aangedreven trailer park van Mammoet Stool, waarmee een totaal draagvermogen van 7.200 ton is gecreëerd.

De geteste trailers hebben een draagvermogen van 2.000 ton (64 asl jnen) en zullen deze zomer worden ingezet voor het transport van een modulaire ertsverwerkingsinstallatie in de Philippijnen en Alaska.

ed Dog' trailers.

Woonhuis aan de wandel

In Buren (Gld) werd een compleet woonhuis met behulp van zelf-aangedreven platformwagens over een afstand van 500 meter verplaatst.

De eigenaar van de woning had een nieuw bedrijfspand gekocht en het oude met de grond verkocht. De keus was dan ook een nieuw woonhuis bij het bedrijf te bouwen, óf het bestaande huis te verplaatsen. Het laatste bleek aanmerkelijk goedkoper en zo kwam het dat Mammoet met zwaar materieel uitrukte om dit klusje te klaren.

Twee hydraulische kranen, een 220- en een 330-tonner, tilden het huis, ondersteund door balken, op en zetten het op zelf-aangedreven platformwagens. Die reden het over de openbare weg naar de nieuwe locatie.

Daar aangekomen werd het 55 ton zware huis wederom met kranen van de platformwagens getild en op de juiste plaats gezet.

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