MÆRSK POST

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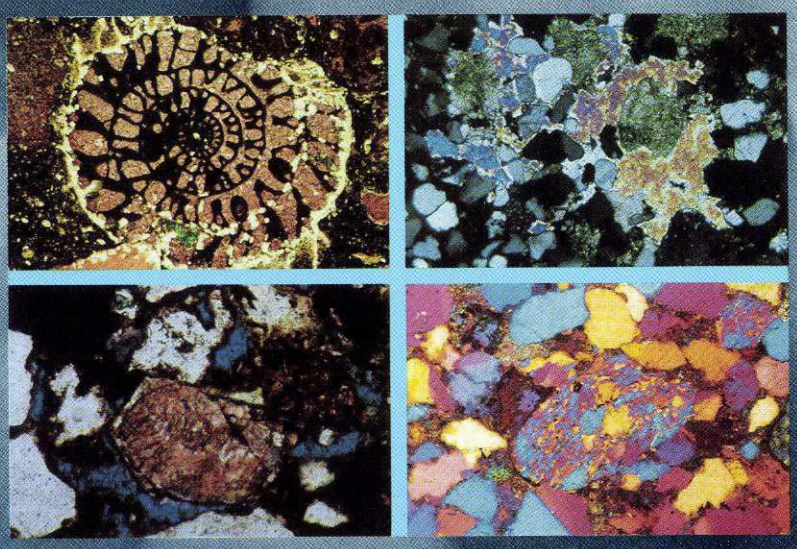

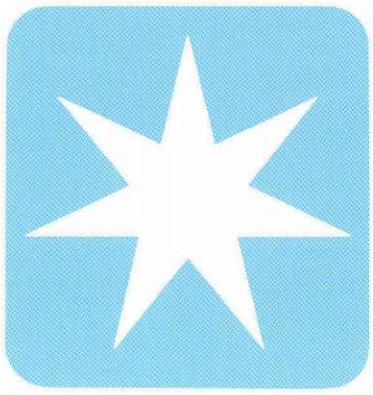

MÆRSK POST

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TRAINING AND EDUCATION

Thorough education and training are essential for an internationally competitive organisation such as ours to function efficiently. Fast developments, not least in the areas of technology and organization, pose increasing demands on the knowledge to employees in alle types of positions. This applies equally to our young employees and, accordingly, we educate and train them from the time they join the A.P. Møller Group.

For many years the Company has run a special trainee programme. Since 1977 our own Shipping School at Esplanaden has provided training in subjects related to the shipping business, in languages and in economic and financial matters. This training also includes observation on shipboard, study tours and business visits.

Each year nearly 100 young people join the Company at Esplanaden and are given this carefully organised training which gradually enables them to fill responsible positions both at home and abroad.

Corresponding training programmes will be established within associated companies abroad in order to achieve a uniform basis for future developments.

A practical and theoretical A.P. Møller training programme is also in operation for young people choosing a career at sea. Every year we take on about 125 deck and engineer apprentices and, after the required seagoing training and education at nautical and engineering schools, they possess the knowledge, experience and qualifications to enable them to become officers on board the advanced ships of the A.P. Møller fleet.

The Lindø Shipyard continually runs its own training programme for 100 apprentices. They are taught crafts such as welding and shipbuilding and other areas of production of the Shipyard. The training is concentrated at the Yard's own school, in close contact with censors who have already served their apprenticeships in the relevant areas – alltogether a practical and theoretical training program which produces well-qualified young people needed both by the Yard and the country at large in the future.

Several of the associated industrial companies run similar education programmes.

Our experience confirms that careful education is of vital importance to the activities of the A.P. Møller Group.

The overall aim is to provide as many young people as possible with a sound education. Fortunately, the young are willing to learn, make efforts and improve their skills in order to be able to function constructively wherever they may be needed within the Group.

But nothing is stationary. Education programmes have to be adjusted and expanded in step with developments and the changing requirements which we are faced with in our various fields of activity, so that all members of the staff are always well prepared to meet the many challenges. Both ashore and at sea we run extensive post educational programmes and courses, which are constantly revised and up-dated.

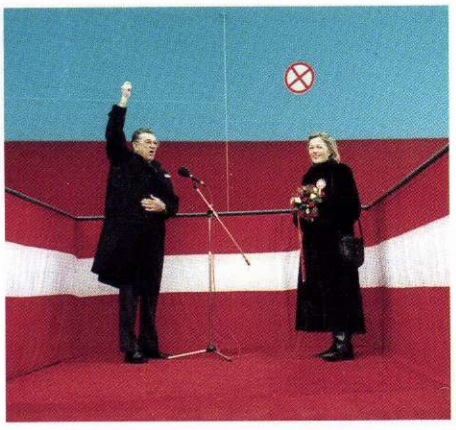
MÆRSK MC-KINNEY MØLLER

New ship: The "MAREN MÆRSK"

The Sponsor Mrs. Bodil Pontoppidan, Chief Engineer Mogens Aagaard (on the left) and Captain Birger Bæk Kristensen seen at the Lindø shipyard when the ship was named.

On Saturday 2nd December 1989, the sixth in a series of 12 container ships built for the A.P. Møller Group, was named the "MAREN MÆRSK" at the Lindø shipyard.
The new ship was named by Mrs. Bodil Pontoppidan, wife of the Managing Director of the Danish Shipowners' Association, Mr. Knud Pontoppidan.
The container ship, which is financed by DMK, has an approximate deadweight of 61,000 tons and goes into service in the A.P. Møller Group's line service on the route from Northern Europe to and from the Far East, via the East and West coasts of USA.
In common with the other ships in the series, the "MAREN MÆRSK" has a container capacity equivalent to approximately 4000 twenty foot containers. The ship can take a cargo of 500 refrigerator containers, including the new 45-foot highcube containers.

Mrs. Bodil Pontoppidan and her husband Managing Director, Mr. Knud Pontoppidan being shown around the engine room by Captain Birger Bæk Kristensen.



Mr. Kurt Andersen, Executive Vice President of the Lindø Shipyard give cheers for the "MAREN MÆRSK"

The "MAREN MÆRSK" is 294.13 metres long and 32.22 metres wide. She has a moulded depth of 21.5 metres and a draught of 13.5 metres. The ship is single-screwed and equipped with a Mitsui-MAN B&W 10 cylinder engine type K90MC, which provides 53,600 BHK, giving a speed of 23 knots, equal to approximately 43 kilometres per hour.
The "MAREN MÆRSK", with Ringkøbing as her home port, is under the command of Captain Birger Bæk Kristensen with Mogens Aagaard as Chief Engineer.

New ship: The "MAERSK NAVIGATOR"

On Saturday December 9th 1989, the "MAERSK NAVIGATOR" was named at the shipyard in Korea. The new tanker is the last in a series of four from the Korean shipyard, Hyundai Heavy Industries.

The Sponsor was Mrs. Sandra Leese, the wife of the Managing Director of Modern Terminals Ltd., Hong Kong, Mr. J.M. Leese.

The "MAERSK NAVIGATOR" is owned by A.P. Møller Singapore Pte. Ltd. and is a VLCC (Very Large Crude Carrier).

The ship is approximately 322 metres long o.a., 56 metres wide, and has a draught of 20.45 metres. She has a deadweight of 255,312 tons, and a cargo capacity of 302,115 cubic metres at 98% load - the equivalent of 1.900,232 US barrels.

The tanker has 6 centre tanks, four rows of two wing tanks as well as 10 permanent water ballast tanks.

The main engine in the "MAERSK NAVIGATOR" is a Hyundai – MAN B&W two-stroke diesel motor, type 6S80MC, which provides 24,280 BHK, giving a speed of 13.5 knots laden and 14.5 knots in ballast.

After the naming ceremony, the ship left on its maiden voyage.

The Captain is P.J. Targett and the Chief Engineer is V.A. Nash.

"MAERSK NAVIGATOR" at anchor after her technical trials.

Mrs. Sandra Leese and Captain P.J. Targett in one of the ship's cabin.

"MAERSK NAVIGATOR's" sponsor Mrs. Sandra Leese, to her left Captain P.J Targett and to her right Chief Engineer V.A. Nash.

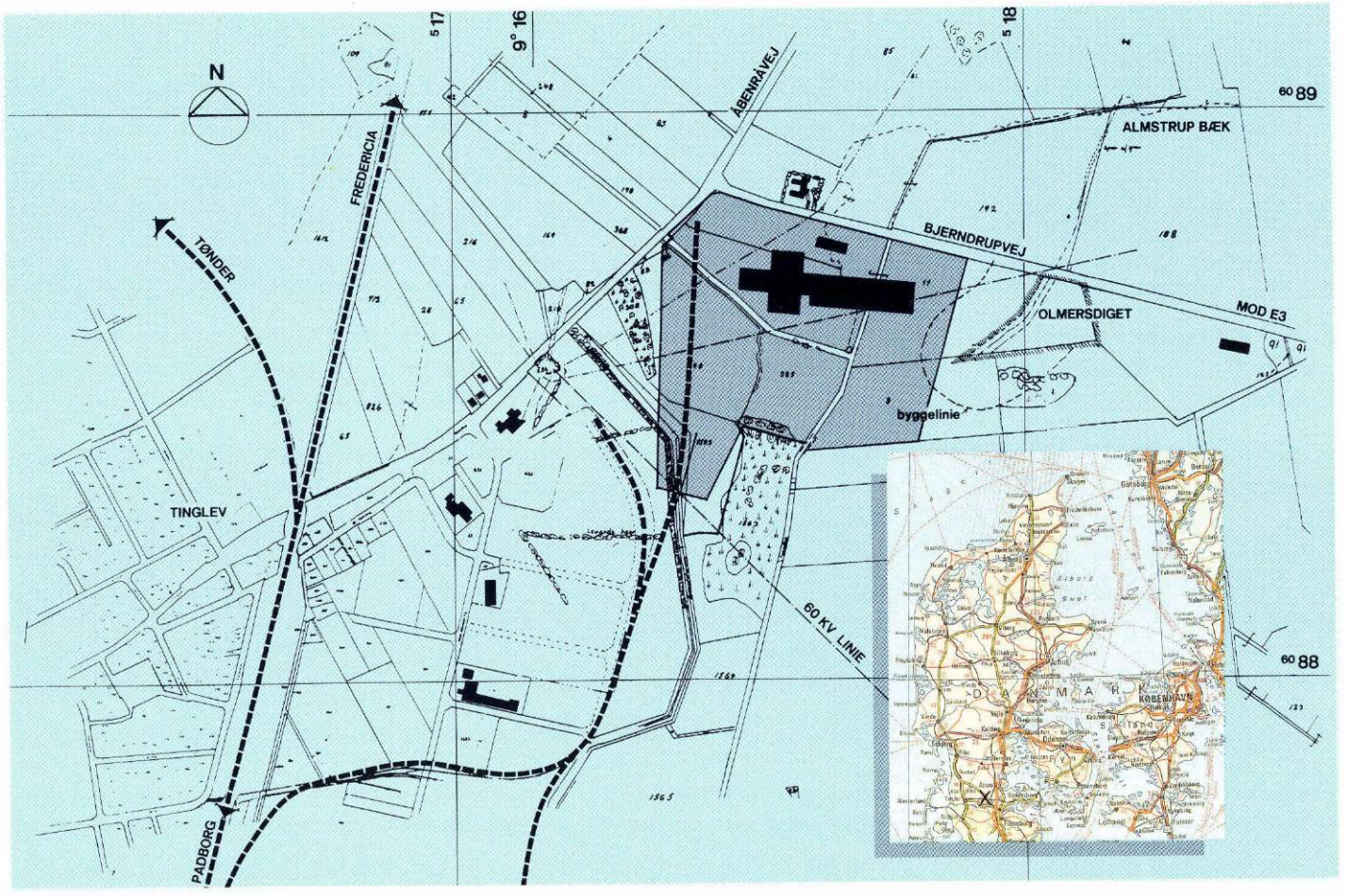
Mr. Mærsk Mc-Kinney Møller with the Insignia of the Order

British Honour for Mr. Mærsk Mc-Kinney Møller

Queen Elizabeth II has awarded to Mr. Mærsk Mc-Kinney Møller the Dignity of an "Honorary Knight Commander of the Most Excellent Order of the British Empire".

At a ceremony at the British Ambassador's residence in Copenhagen on 30th January 1990, the Insignia of the Order were presented to Mr. Mærsk Mc-Kinney Møller by the Ambassador, His Excellency Mr. Nigel Williams, who stated that the award should be looked upon as an acknowledgement

- of the contribution which the A.P. Møller Group, under the chairmanship of Mr. Mærsk Mc-Kinney Møller has made to economic life in Britain
- of the encouragement Mr. Mærsk Mc-Kinney Møller has given to the strengthening of Anglo-Danish relations, and
- of his generosity to British causes.



New factory: Mærsk Container Industri A/S

A.P. Møller establish a container factory in Tinglev, South Jutland.

On 15th January 1990, the contract for the purchase of a building site was signed in Tinglev. The fact that it is possible to start such a large firm, is the source of great joy in both the Southern Jutland municipality and in the Shipping Company. The factory is to be located on a 20-hectare site on the eastern boundary of Tinglev – close to the railway and the motorway.

The factory will provide employment for approximately 160 staff employees, primarily from areas in the vicinity.

When the production of containers reaches its optimum volume, it will be possible to produce about 20,000 container-units per year, which is equivalent to a production capacity of about 70 units per day.

Mærsk Container Industri A/S – an independent company in the A.P. Møller Group – will not only deliver containers to the Shipping Company, but also sell and deliver containers to other customers who find the firm competitive.

20-foot and 40-foot containers, as well as high-cube units will be manufactured, but the production of refrigerator containers is not envisaged.

Lindø shipyard's experience with the use of high technology is forming the basis for the new container factory's production systems. For a long time now, the yard has based its production of ships on the line-production system. The same principles will be used in the manufacture of containers, and the individual components will be assembled through a number of working processes. In this way, the working processes will be streamlined and simplified, and much time will be saved. The working functions will also be simplified through the use of automatic welding robots, which has proved to be a success at Lindø. The robots improve working conditions and increase precision.

Mærsk Container Industri A/S will be a modern factory based on the simplification of the number of working processes, through the use of modern automation and robot techniques. Furthermore, the latest information technology will be utilised and an online system will constantly be able to provide an up-dated snapshot of all the factory conditions, as well as of all connections with suppliers and customers. The "Just in time" principle will characterise the container factory's production.

The staff must be capable of operating several specific work stations, and the factory has the possibility of getting assistance from the local AMU (The Labour Market Training Centre) in the training of future employees from the area. With the help of EDP, it will be possible to simulate the various working stations, so that employees can take part in the factory's production after 2-3 months' training. People from Lindø will also assist in this training.

Investment in the factory will amount to DKK 200 million, and it is expected that the factory will be ready in a year's time.

The Executive Vice President of Mærsk Container Industri A/S will be Mr. Vagn Rosenkilde Kristensen and Mr. Niels Peter Raun will be the Technical Vice President. The company's Board of Directors comprises Executive Vice President Troels Dilling, as Chairman, Executive Vice President Knud Andersen and Vice President Peter Jann Nielsen.

3D view of the MSC CJ62-S120 is kindly lend by the designer Marine Structure Consultants (MSC) bv.

New drilling rigs

The A.P. Møller Shipping Company has ordered two new jack-up drilling rigs from the Singapore shipyard, Far East Levingston Shipbuilding Ltd., to be delivered in 1992.

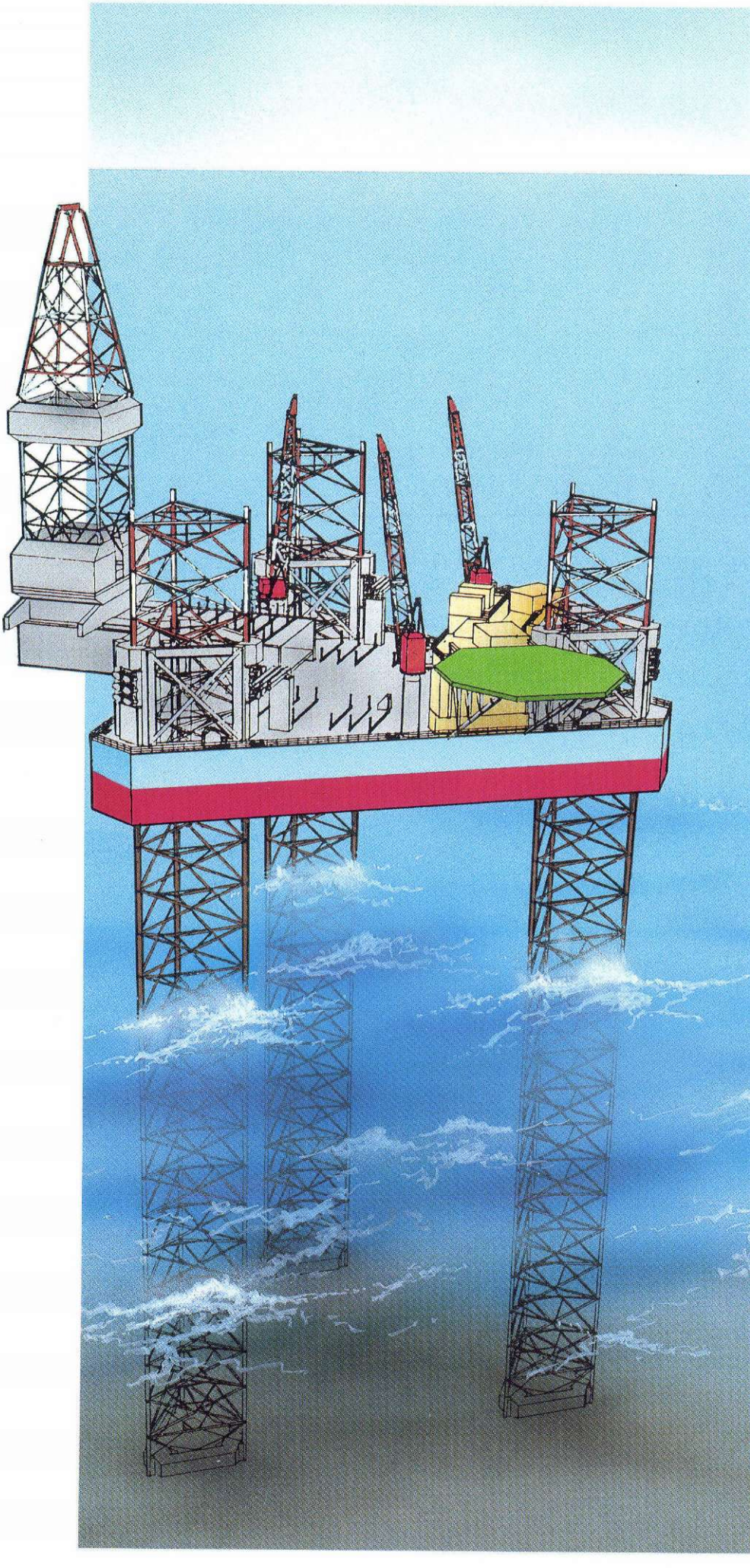
The drilling rigs are among the most advanced of their kind. The hull weighs 13.500 tonnes and measures 90 metres in breadth, 78 metres in length, and 11 metres in height. Altogether the legs weigh 6.500 tonnes, and each leg is 165 metres long, making them 8 metres longer than two other of the Shipping Company's large drilling rigs, "MÆRSK GUARDIAN" and "MÆRSK GIANT". The rig's "feet", the so called spudcans, each have a surface size of 250 square metres.

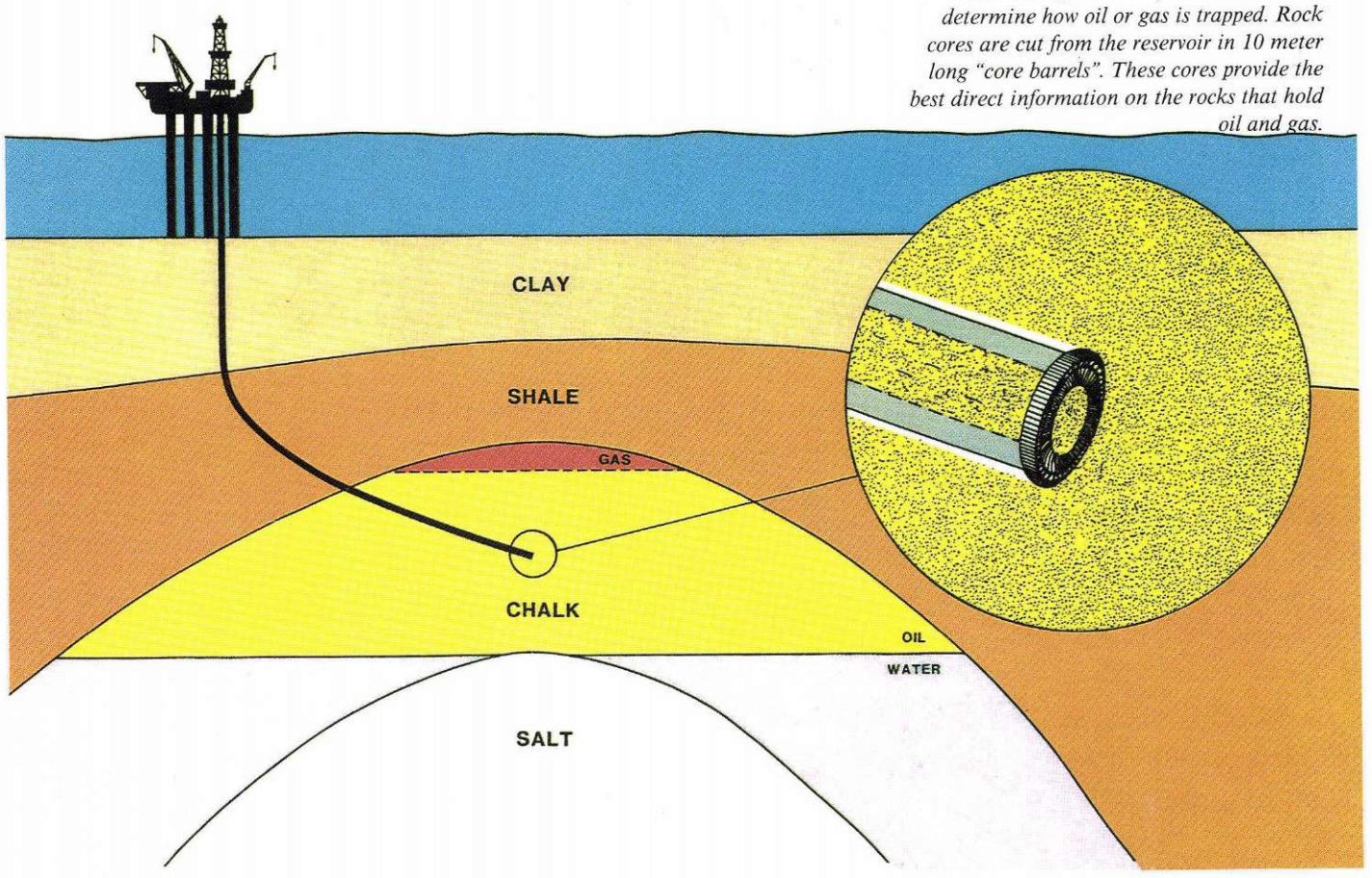
The lifting capacity in the derrick is 680 tonnes, and it is possible for the new rigs to drill to a depth of 25,000 feet. At the same time, they are capable of operating in exposed areas to a depth of up to 110 metres. The drilling rigs will be specially equipped for use in exposed parts of both the British and Norwegian areas.

A modern drilling rig can, in principle, be compared to a large contractors' machine, which in addition to carrying out drilling jobs, can install small production platforms. Several large water tanks are built into the hull, and these contain up to 25,000 tonnes of sea water. These are used when the three rig-legs have to be securely placed on the sea bed.

The hull is lifted with the help of the so-called jack-up system, which on the new rigs will have a new world record capacity for "elevators". The rigs will have the most modern equipment. Much of the new equipment is intended for the mechanization of jobs which at the moment are still carried out manually. The engine room will not be manned, and a joint system for computer controlled supervision systems, stock control etc, is being installed. Furthermore, the rigs will utilize the latest development in the field of drilling techniques, including horizontal drilling, in which Mærsk Olie & Gas have been pioneers.

Each rig can hold 90 men. As regard recreational facilities, the rigs can offer video and music rooms as well as a fully-equipped gymnasium complete with a sauna.





Cutting cores in the North Sea. Samples of oil-bearing reservoir rocks are taken to determine how oil or gas is trapped. Rock cores are cut from the reservoir in 10 meter long "core barrels". These cores provide the best direct information on the rocks that hold oil and gas.

Danish underground stored in old win-stock

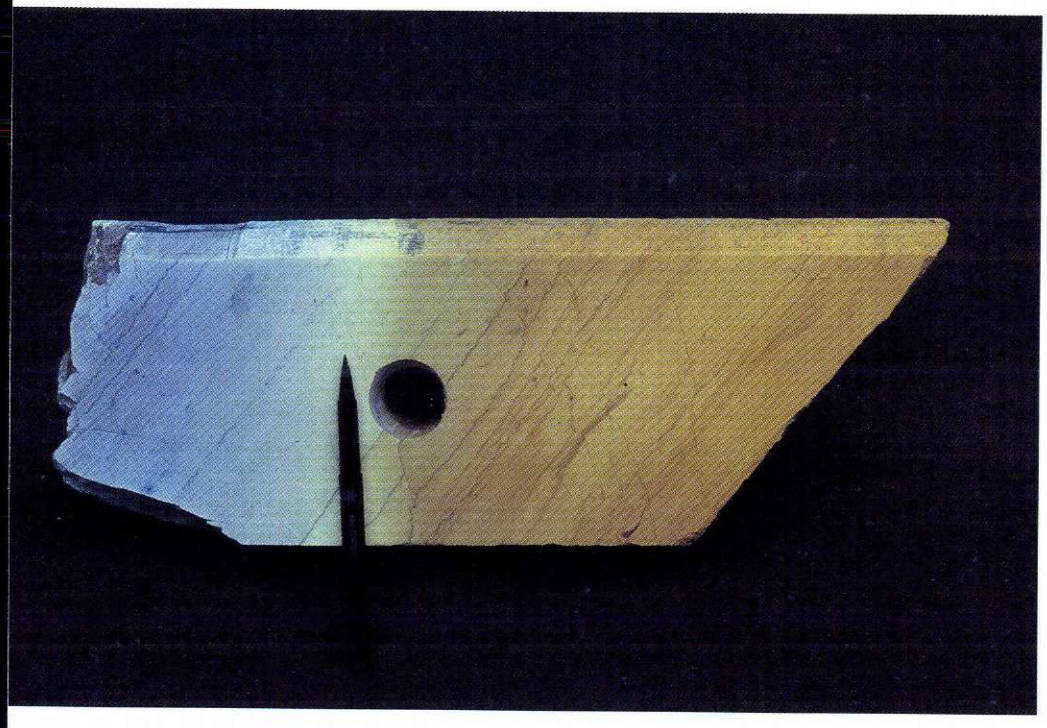
A common misconception about oil is that it lies in large underground pools waiting to be tapped. Oil fields like this do occur (in some places like the Middle East), but unfortunately, they are very rare. Most oil and gas it trapped in small holes, called pores, within "reservoir" rocks. This is particularly true for the DUC operated fields in the North Sea. Currently all of the oil and gas produced in the Danish Sector comes from chalk. Chalk generally has extremely small pores less than 1/100 of a millimeter wide. The total volume of these pores is called porosity, which directly controls how much oil a field can contain. Therefore, describing the oil-bearing rocks and examining their porosity are important first steps in efficiently developing the DUC's North Sea oil and gas reserves.

Reservoir rocks in the Danish Sector lie 2 to 3 thousand meters below the surface of the earth. Samples of these rocks are brought to the surface for study by the process of coring. On the drilling rig, a 10 or 20 meter long hollow fiberglass tube is fitted inside a steel pipe and capped by a diamond bit. This "core barrel" is then run down the hole to the reservoir. As drilling proceeds a 10 to 15 cm thick cylinder of rock is cut from the reservoir and forced up into the tube. When the "barrel" is full it is brought back to the surface. At the well-site a geologist makes some preliminary analyses of the reservoir rock. The core is then placed on a supply boat and sent to shore.

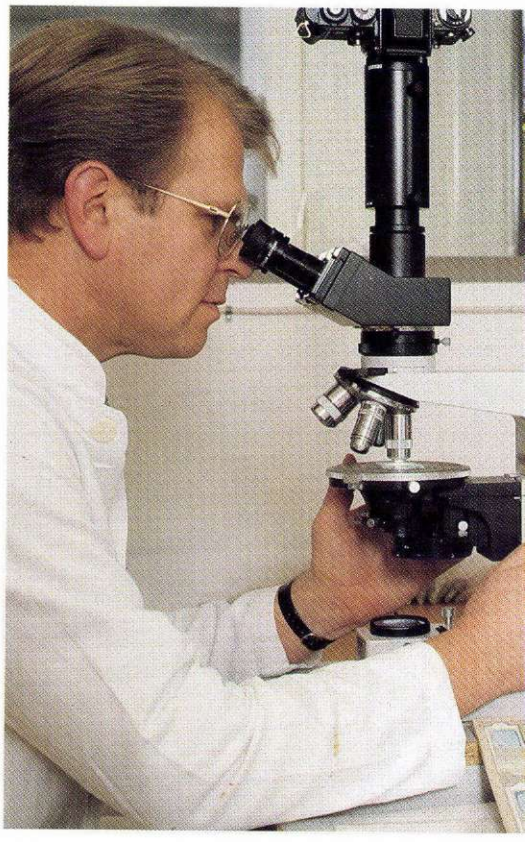
After arriving at the Mærsk Laboratory, cores must first be cleaned. The surface of the core is coated by a residue of "drilling mud" which must be removed prior to any further analysis. Here Lab Technician Bernhardt Christensen prepares to clean a core from the Valdemar Field.

Once on-shore in Esbjerg, the core is trucked to the Mærsk Olie and Gas laboratory in Copenhagen. The Mærsk laboratory is located at 9 St. Strandstræde near Nyhavn, in a building previously used as a winery (it has been thoroughly, but unsuccesfully, searched for a stock of wine reportedly hidden during the war). The lab serves as the central facility for processing, analyzing, and storing all rock cores taken in the development of the DUC's North Sea oil and gas fields. It is here that rock is turned into knowledge.

Before any analyses can begin the core



Photographs are taken of the cores in normal light and ultraviolet (UV) to record their original appearance. In this UV photo, a piece of core from the Dan Field fluoresces gold where it is oil-bearing and blue-white where it contains gas.



must be cleaned. While drilling and coring, drillers use a fluid (called drilling mud) in the wellbore to cool the bit and remove ground up rock. This mud leaves a several millimeter thick residue on the outside of the core. Removing this is a messy but necessary job for the laboratory staff. Each core piece must be scraped and brushed to expose its outer surface. The core is then carefully labeled and placed in special core boxes.

The next step in preparing a core is to cut a thin slab along its length. Most geologic features of interest are visible only on a freshly cut, flat surface. Cutting a 2 cm thick slab provides the necessary flat surface while preserving most of the core for other uses.

The final step in core preparation is to photograph the flat surface in both normal light and ultra-violet (UV) light. Photography provides a permanent record of the core's original appearance before any analysis. UV light is used because it causes oil trapped in pores to fluoresce. The UV photos show where the oil actually occures in the rock.

A detailed description is made of all geologic features observed in the cores. Lab Supervisor Søren Pedersen and Geologist Mike Yusas examine a core from the Kraka Field to record and fossils, fractures, oil staining etc. This information is used to predict the size of the oil reservoir.

At this stage geological analyses begin. First, a detailed description is made of all visible features in the rock. Fossils, laminations, fractures, oil stains, and any other item of interest are recorded. Depending on the geologic complexity, a geologist can spend from an hour to a full day in describing a few meters of core. All this information is used later to evaluate the quality of the reservoir rock and to predict how large the reservoir is.

One aspect of core description that is particularly important for some DUC fields is fracture analysis. Open fractures in reservoirs greatly improve oil production because fractures act as open pathways allowing oil to flow rapidly into the wellbore. The DUC's most prolific field, Skjold, produces almost entirely via fractures. In fracture analysis, each fracture observed in the core is characterized by how it is formed, its size, the amount of openings, and its orientation in the reservoir. Special computerized equipment is used to measure orientations and to manipulate all fracture data.

After describing every feature that is visible to the eye, the geologist switches to the microscopic scale. Thin slices of the rock are cut and glued to microscope slides. The slices are then ground and polished so thin that light can pass through them. A geologist examines these thin slices through a microscope to determine what minerals the rock is made of and to describe the oil-bearing pores. The geologist can then tell whether the rock contains big, well connected pores (good production) or small, poorly connected pores (poor or no production).

Two of the most important measurements that are made on a core are its porosity and permeability. Porosity is a measure of the total volume of pore space which reflects how much oil can be trapped in the rock. Permeability measures the ability of oil to flow out of the rock into the wellbore. To measure these properties a series of 2.5 cm diameter plugs are cut from the core. The plugs are filled with helium to determine the porosity, and nitrogen is forced through to measure permeability. Naturally, reservoir rocks with the highest porosity and permeabillity make the best producers. When these two rock parameters are known a much better estimate of how much a field can produce will be possible.

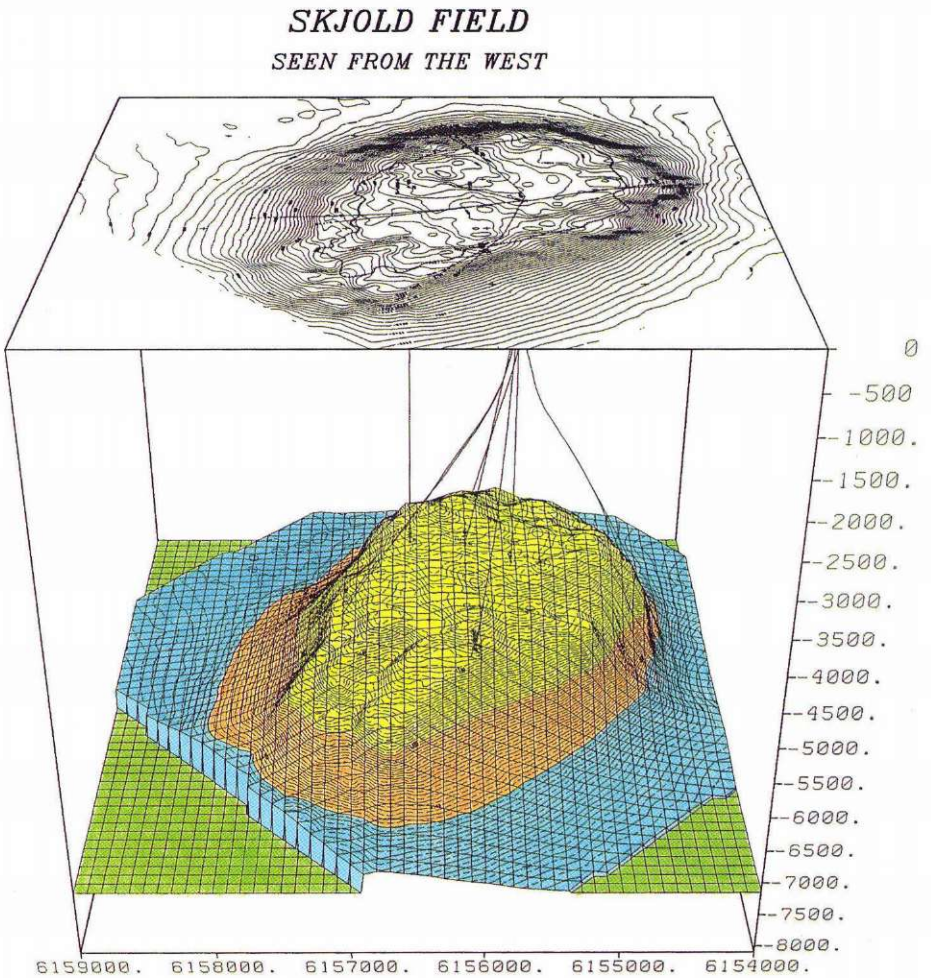
Finally, when all analyses are complete, the rock is stored in the core warehouse. Packed and preserved to prevent degradation, the core joins the other 8.5 kilometers of core material on the St. Strandstræde basement shelves. Careful computerized records are kept on each core to keep order in this huge volume of material.

The core may be stored away, but the information obtained from it is now put to

More information can be gained by cutting extremely thin slices of the reservoir rock and examining them under a microscope. Pieces of rock are ground and polished to a thickness that light can pass through. At this microscopic scale, a geologist can actualy see and descripe the pores that trap oil in the rock.

Final resting place. These core boxes contain part of the 8.5 kilometers of core in the St. Strandstræde basement. The cores are stored where wine casks used to lie.

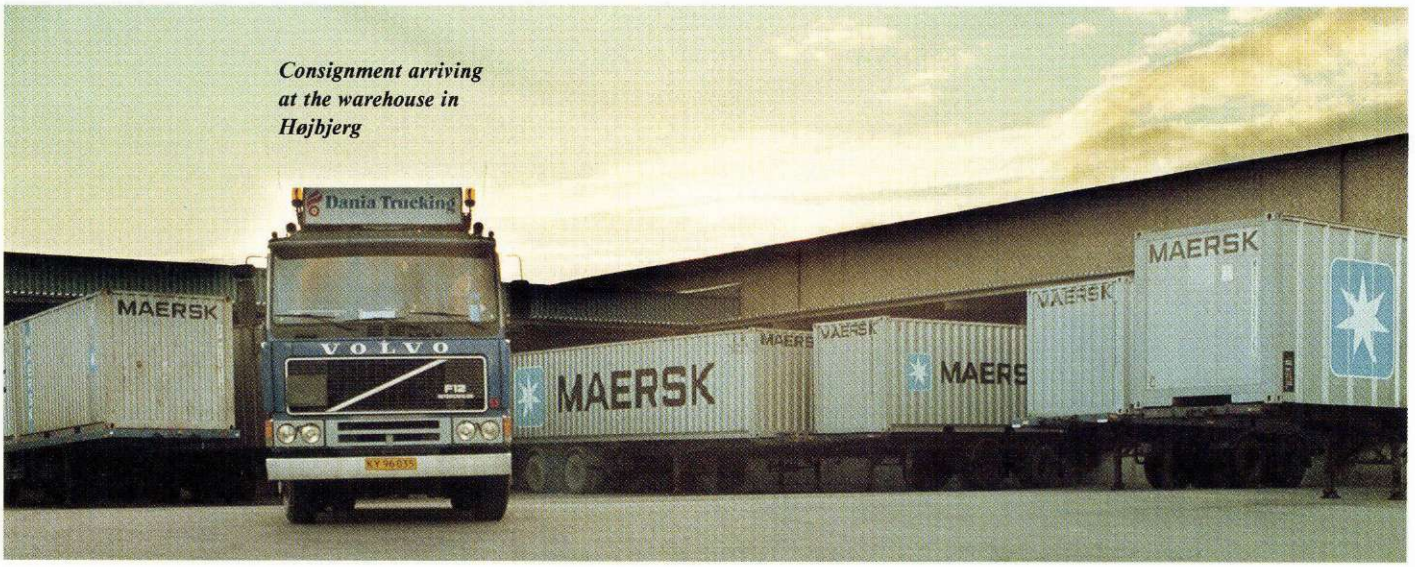
The ultimate goal of coring, creating an integrated reservoir model. Core data was combined with seismic interpretation and reservoir engineering to develop this computer model of the Skjold Field.



use. At this stage scientists from diverse professions work together to build a reservoir model. All available data, and especially everything learned about the reservoir rock, is integrated in a computer. A full 3 dimensional picture of the reservoir is created. The DUC then uses this model to predict future production and to plan an efficient development of its oil and gas reserves.

Porosity and permeability are important reservoir parameters that can only be directly determined from cores. Here Lab Technician Michael Jensen drills a series of plugs from a Kraka Field core to be used in porosity and permeability measurements.

By: MIKE YUSAS
Photo: FINN CHRISTOFFERSEN



Consignment arriving at the warehouse in Højbjerg

From Hong Kong to Højbjerg

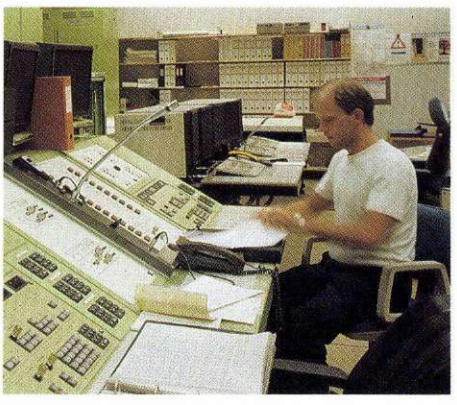
Two of the three warehouses in Jutland, which are Danish Supermarkets' distribution centres for the department store Salling, as well as the supermarkets Bilka, Føtex and Netto and Tøj & Sko, are situated in Højbjerg near Århus. The picture shows a consignment arriving at one of the Højbjerg warehouses, where the containers are delivered via MAERSK LINE's weekly line service from the Far East. The cargo is mainly shipped from Hong Kong, Taiwan and Malaysia and consists of textile goods, ironmongery, toys, rattan (cane furniture) and many other things. At the warehouses, huge amounts of goods, corresponding to the contents of approximately 15 40-foot containers, are handled every week. In order to ensure control of all these goods, Danish Supermarkets make use, to an extensive degree, of the MAERSK LINE's EDP-drafts, which are called MAGIC. With MAGIC's help, Danish Supermarkets, like other MAERSK LINE customers, have a direct connection to MAERSK LINE's computer system, and can therefore obtain information on their cargo, times of shipping, transport, arrival and documentation.

The voyage from Hong Kong to Højbjerg, incidentally, takes only 24 days, and during this time roughly 19,400 kilometres are covered.

A working day in the North Sea for 546 people

Dansk Undergrunds Consortium's platforms, which are the source of all the Danish oil and natural gas supplies, were, on 24th January 1990, with the necessary ships, helicopters and drilling rigs, the workplace for 546 people. Even so, the winter period on the North Sea is the quietest part of the year, as most of the fixed maintenance tasks are carried out during the summer months, when the moody and harsh North Sea is not quite so mischievous.

That part of the staff directly involved in oil and gas production is taken on by DUC's operator, Mærsk Olie og Gas AS. Many functions have to be manned round the clock in order to ensure that the oil and gas continues to stream steadily through the pipes to land. At the moment, there are 145 men employed here. Many important functions are taken care of by personnel from outside firms, e.g. the provisioning and cleaning of the platforms. Scaffolding and painting jobs are similarly among those tasks done by firms on contract to Mærsk Olie og Gas. This group of people – normally called "contractors" – included on 24th January people from SAS Catering, Danserv, Esbjerg Oilfield Services, Semco and Vølund, in all 151 persons.



In the control room at Dan Felt, the production and the many safety systems are under round-the-clock supervision.

DUC leases drilling rigs for the drilling work. At present three rigs are working in the sections drilling new sources of production, while a fourth rig is being used as a water inspection platform. 185 men are employed on the rigs, which also work around the clock. The job of transportation, in connection with DUC's activities, is carried out by three supply ships, while six guard ships do other jobs such as, for instance, supervising the shipping in the area around the platforms. A total of 65 men make up the crews of these ships.

Apart from those who work in the North Sea, there is a corresponding number of staff taking time off on land. In addition, there are all those working on land, either at Mærsk Olie og Gas at the base in Esbjerg, or in other places. Altogether it is estimated that over 2,200 people are employed as a result of DUC's activities. In addition, there are several thousand others working at the contractors and sub-contractors.

Gun carriages for Kastellet

Members of the Kings Artillery Regiment in the uniforms of the 1st Slesvig War ready to operate the cannon.

On 28th October 1989, a cannon salute was exchanged across the harbour in Copenhagen. The Sixtus Battery at Nyholm – opposite the Shipping Company's Head Office – was congratulating Kastellet on the occasion of the 325th anniversary of the fortress.

The remarkable – and particularly audible and visible – fact about this was that Kastellet was able to return the salute from the restored and recaptured bastions – the Princess' and the Count's – from three bronze cannon in reconstructed gun carriages.

The three gun carriages were a birthday present from A.P. Møller's General Fund. While Sixtus at Nyholm fires a salute every day at sunset during royal events and naval visits, it was the first time that a salute had been fired from Kastellet since 1894. In that year, Østre Kastelsvold (the eastern rampart of the citadel) was drastically separated from the rest of the citadel by the construction of the railway line and the connecting road between the then new Frihavn (Free Port) and the old Toldbod (Custom House), and by the laying out of the area as a public park.

In recent years, there has been great interest in the restoration of Kastellet's ramparts and buildings, and the idea of re-arming Kastellet with cannon of the historically-correct type, which had previously been in position on the Kastellet ramparts suddenly emerged.

The Royal Danish Arsenal Museum (Tøjhusmuseet) expressed interest in collaboration, and in 1988 four bronze cannon were transferred to Kastellet from Kronborg Fortress, where they had been for 88 years. Immediately, a natural desire to be able to mount 3 of the cannon in correctly resconstructed gun carriages cropped up. In connection with the handing over by the chairman of A. P. Møller's General Fund of the re-established ramparts of Kastellet to the Defence Authorities on 5th January 1989, an extremely large donation was presented at the same time and this made possible the construction of the desired gun carriages.

The construction of these gun carriages was carried out exclusively with the use of labour from Jutland. The architect, Morten Røjel from Fredericia was appointed leader of the project. The material used for the gun carriages was oak, from trees planted in 1807 in the naval forest of Støvringgaard Priory's Forest District. The iron used was imported from the Ruhr district of Germany.

These materials were processed at the sawmill in Herslev and the blacksmith in Kongsted, both of which villages are located slightly west of Fredericia, and as far as the wheels for the carriages were concerned, at the coachbuilder and blacksmith in Sillerup, to the north east of Haderslev.

The Royal Danish Arsenal Museum supported the reconstruction with material from the archives of historical drawings, and it was discovered that the warranted designation of the gun carriages was Rampart Gun Carriage model 1821. The individual gun carriages consist of about 650 single pieces. We have here first class craftsmanship, carried out with saw and sledgehammer in the sawmill's sweatbox and the blacksmith's forge – and by craftsmen who take pride in their skills.

Modern methods have been utilised, however, so that compregnation of the wood and galvanisation of the iron will ensure a lifetime for the gun carriages of more than double that of those built in the past. The gun carriages have been painted in the Oldenborg colours of yellow and red, or more precisely yellow ochre and ochre red.

The three gun carriages are now prominently displayed on the ramparts at Kastellet as proof of all the impressive craftsmanship.

The bronze cannon, which responded to Sixtus' greeting on Kastellet's 325th anniversary were placed in the gun carriages which were beautifully crafted out of oak timber which should have been used by the navy. For the rest of the world it was a demonstration in thunder and smoke that the re-established eastern rampart of Kastellet will never again surrender but will remain a military area!

In the name of peace, it must be added that the owner of the restaurant Langeliniepavillionen, which is situated in the direct firing line of two of the cannon, was previously informed of the salute. The pavillion's doors and windows were opened to ensure that Kastellet would not be presented with an enormous bill for glass, and that the pots and pans in the kitchens did not end up on the floor!

By MAJOR E. ØRNSTEDT
Photo: LEIF ERNST

EDP – and security

By KLAUS K. SIMONSEN

"The right information at the right time", has become possible with the introduction and increasing utilisation of EDP. The collection and processing of information data is an important part of our daily life, and information is one of our most essential resources.

The processing of information by EDP has been with us for many years – and there is hardly anybody today who does not use EDP-systems, which have been developed with many different everyday uses in mind.

Already back in 1955, the Shipping Company started up a punched card department, and in 1970 MÆRSK DATA was established. In both places the computer was a central, isolated installation. Data for use in the systems was delivered in the form of punched cards, and the machines supplied the information on huge piles of paper. When these machines were installed, it was considered a great step forward that "the breaking down of figures", calculations and writing could be carried out automatically.

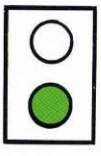
As regards the question of security, at that time it was simple and clear. Only those employees who worked at the EDP installations had access to the machines, data and systems, and the chances of making technical errors were limited.

Nowadays the information systems are, both practically and technically speaking, far more productive and easy to use, but also more complex.

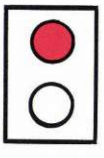
More people use terminals, and even more in the future will be using personal computers.

Both of these demand installations in the form of a network, and personal computers, in addition, require software, hard disk etc.

Regarding security again, the use of EDP is still clear, but no longer quite so simple. We must consequently pay more attention to security, particularly because the utilisation of EDP is increasing, and so is our dependence on it.



EDP security has become a well known and accepted concept, and it is essential that everybody who works with EDP realises its importance.



EDP security covers all possible efforts and precautions which can be made in order that information, data and systems:

- are correct, and only accessible to those who use them
- do not disappear or are changed due to an error or breakdown.

At A.P. Møller, great measures have been initiated, in order to ensure these objectives. The valid regulations, guidelines, recommendations and the few things which are forbidden have not been worked out to make the use of EDP more difficult in any way, but exclusively because it is necessary these days to have fixed rules regarding the day-to-day traffic in data and information.

If this "Highway Code" is followed, we can navigate safely and avoid many accidents and time-consuming delays.

A break in security can be intentional or unintentional, and an error can be deliberate or unconscious. If anyone has the impression that EDP – as well as being expensive – is full of risks, if one does not take care with ones data and information, it is quite correct! Here are some examples from the world of EDP:

HACKERS are persons who try to gain access to firms' computers through Dial-up in order to tap data/information from the EDP installation. Our systems are enclosed by different "security fences", which make sure that only known users gain access to the individual systems. The careful use of passwords is an important part of the security measures.

TAPPING is listening in to data transmissions. This can be prevented by scrambling the transmission of information; that is to say, by translating the transmission into a code language, which is only known to "genuine" users.

PC VIRUS is a source of errors, which has the ability to destroy programmes and systems. Most people probably remember the "Friday the 13th Virus" of October 1989, which, incidentally, will crop up again on 13th April and 13th July this year. It was the cause of a great deal of trouble around the world, and wiped out programmes and data, although fortunately not ours. The virus is usually spread through computer games, software from public databases and illegal copies of otherwise normal systems. All three examples should naturally be avoided.

Other, more common things which can reduce EDP security and thereby the quality of our work, which is after all, how we make our living, are :

- the lack of plans for how the work is to continue if the EDP systems become inaccessible
- the lack of back-up data
- incomplete training in the functions of the system
- unprofessional use of the passwords
- the lack of control of access to information on PC's

If all the rules are carefully followed, nothing should go wrong. An important, but also intangible factor is the human factor. Actually, it is necessary to be decidedly selfish where EDP security is concerned – among other things, one should always ask oneself if ones own data and information is still sufficiently secure.

THE MÆRSK FLEET 1990

January 1st. 1990

CRUDE – CARRIERS

t.t. "KIRSTEN MÆRSK"
Built: Odense Staalskibsværft A/S, Lindø

	BUILT	TDW.
t.t. "KIRSTEN MÆRSK"	1975	339,000
t.t. "KAROLINE MÆRSK"	1976	339,600
t.t. "KATE MÆRSK"	1976	339,200
t.t. "KARAMA MÆRSK"	1977	337,700
t.t. "KAREN MÆRSK"	1977	337,800

m.t. "NICOLINE MÆRSK"
Built: Korea

	BUILT	TDW.
m.t. "NICOLINE MÆRSK"	1989	255,000
m.t. "NIELS MÆRSK"	1989	255,000
m.t. "MAERSK NAUTILUS"	1989	255,000
m.t. "MAERSK NAVIGATOR"	1989	255,000

m.t. "MAERSK VALENCIA"
Built: Spain

	BUILT	TDW.
m.t. "MAERSK VALENCIA"	1977	150,000
m.t. "MAERSK GERONA"	1979	150,000
m.t. "MAERSK LERIDA"	1978	150,000

PRODUCT-CARRIERS

m.t. "HERTA MÆRSK"
Built: A/S Nakskov Skibsværft

	BUILT	TDW.
m.t. "HERTA MÆRSK"	1982	13,845
m.t. "HULDA MÆRSK"	1982	13,845
m.t. "HENRIETTE MÆRSK"	1982	13,845
m.t. "MAERSK HARRIER"	1982	13,845

m.t. "ROBERT MÆRSK"
Built: Odense Staalskibsværft A/S, Lindø

	BUILT	TDW.
m.t. "ROBERT MÆRSK"	1986	27,350
m.t. "RAS MÆRSK"	1986	27,350
m.t. "ROMØ MÆRSK"	1986	27,350
m.t. "RITA MÆRSK"	1986	27,350
m.t. "RASMINE MÆRSK"	1986	27,350

m.t. "MAERSK GANNET"
Built: Finland

	BUILT	TDW.
m.t. "MAERSK GANNET"	1977	32,389

m.t. "PETER MÆRSK"
Built: Japan

	BUILT	TDW.
m.t. "PETER MÆRSK"	1981	47,803
m.t. "PRIMA MÆRSK"	1982	47,803
m.t. "PAULA MÆRSK"	1982	47,803

m.t. "A.P. MØLLER"
Built: Odense Staalskibsværft A/S, Lindø

	BUILT	TDW.
m.t. "A.P. MØLLER"	1984	50,600
m.t. "EMMA MÆRSK"	1985	50,600
m.t. "EVELYN MÆRSK"	1985	50,600
m.t. "ESTELLE MÆRSK"	1987	50,600
m.t. "ELEO MÆRSK"	1987	50,600

m.t. "MAERSK JUPITER"
Built: Norway

	BUILT	TDW.
m.t. "MAERSK JUPITER"	1978	59,230
m.t. "MAERSK JAVELIN"	1976	59,650
m.t. "MAERSK JUNO"	1976	59,650
m.t. "MAERSK ASCENSION"	1976	59,650

m.t. "DIRCH MÆRSK"
Built: Odense Staalskibsværft A/S, Lindø

	BUILT	TDW.
m.t. "DIRCH MÆRSK"	1983	99,800
m.t. "DORTHE MÆRSK"	1983	99,800
m.t. "DAGMAR MÆRSK"	1984	99,800

m.t. "VALKYRIEN MÆRSK"
Built: Japan

	BUILT	TDW.
m.t. "VALKYRIEN MÆRSK"	1988	110,296
m.t. "MAERSK VIRTUE"	1988	110,296

GAS-TANKERS (LPG/C)

LPG/C "GUDRUN MÆRSK"
Built: West Germany

	BUILT	M^3
LPG/C "GUDRUN MÆRSK"	1989	11,600
LPG/C "GJERTRUD MÆRSK"	1989	11,600

LPG/C "MAERSK COMMANDER"
Built: Norway

	BUILT	*M³*
LPG/C "MAERSK COMMANDER"	1976	12,060
LPG/C "MAERSK CAPTAIN"	1977	12,060
LPG/C "MAERSK CADET"	1972	12,060

LPG/C "SALLY MÆRSK"
Built: Odense Staalskibsværft A/S, Lindø

	BUILT	*M³*
LPG/C "SALLY MÆRSK"	1981	15,074
LPG/C "SVENDBORG MÆRSK"	1981	15,067
LPG/C "SUSAN MÆRSK"	1981	15,072
LPG/C "SVEND MÆRSK"	1982	15,067
LPG/C "OLGA MÆRSK"	1984	15,098
LPG/C "OLUF MÆRSK"	1984	15,089

CONTAINER VESSELS

m.s. "MARCHEN MÆRSK"
Built: Odense Staalskibsværft A/S, Lindø

	BUILT	*TDW.*
m.s. "MARCHEN MÆRSK"	1988	60,640
m.s. "MARIT MÆRSK"	1988	60,640
m.s. "MARGRETHE MÆRSK"	1988	60,640
m.s. "METTE MÆRSK"	1989	60,640
m.s. "MATHILDE MÆRSK"	1989	60,640
m.s. "MAREN MÆRSK"	1989	60,640

m.s. "REGINA MÆRSK"
Built: Odense Staalskibsværft A/S, Lindø

	BUILT	*TDW.*
m.s. "REGINA MÆRSK"	1983	53,310
m.s. "LAURA MÆRSK"	1980	53,688
m.s. "LEISE MÆRSK"	1980	53,548
m.s. "LEXA MÆRSK"	1981	53,540
m.s. "LICA MÆRSK"	1981	53,498
m.s. "LEDA MÆRSK"	1982	53,690
m.s. "LUNA MÆRSK"	1982	44,142
m.s. "LOUIS MÆRSK"	1984	53,325
m.s. "LAUST MÆRSK"	1984	48,527
m.s. "LARS MÆRSK"	1984	53,325
m.s. "MC-KINNEY MÆRSK"	1985	53,325

m.s. "ANDERS MÆRSK"
Built: West Germany

	BUILT	TDW.
m.s. "ANDERS MÆRSK"	1976	37,129
m.s. "ANNA MÆRSK"	1975	37,116
m.s. "ARTHUR MÆRSK"	1976	37,212
m.s. "AXEL MÆRSK"	1976	37,115
m.s. "ALVA MAERSK"	1976	37,852
m.s. "ARILD MAERSK"	1976	37,872

m.s. "ADRIAN MÆRSK"
Built: West Germany

	BUILT	TDW.
m.s. "ADRIAN MÆRSK"	1975	32,178
m.s. "ALBERT MÆRSK"	1975	32,103
m.s. "ARNOLD MÆRSK"	1975	32,197

m.s. "BRIGIT MAERSK"
Built: Japan

	BUILT	TDW.
m.s. "BRIGIT MAERSK"	1974	32,835

m.s. "CORNELIA MÆRSK", with gantry crane
Built: Norway

	BUILT	TDW.
m.s. "CORNELIA MÆRSK"	1967	24,617
m.s. "CECILIE MÆRSK"	1967	24,617

m.s. "MAERSK CLAUDINE" with gantry crane
Built: Japan

	BUILT	TDW.
m.s. "MAERSK CLAUDINE"	1978	11,034
m.s. "MAERSK CLEMENTINE"	1978	11,007

RO/RO VESSELS

m.s. "MAERSK FLANDERS"
Built: Japan

	BUILT	TDW.
m.s. "MAERSK FLANDERS"	1978	3,573
m.s. "MAERSK ANGLIA"	1977	3,522

m.s. "DUKE OF HOLLAND"
Built: Holland

	BUILT	TDW.
m.s. "DUKE OF HOLLAND"	1981	1,600

m.s. "MAERSK YARE"
Built: Dannebrog Værft A/S

	BUILT	TDW.
m.s. "MAERSK YARE"	1977	1,900

m.s. "MAERSK ESSEX"
Built: France

	BUILT	TDW.
m.s. "MAERSK ESSEX"	1978	12,788
m.s. "MAERSK KENT"	1978	12,788

BULKCARRIERS

m.s. "MAERSK SERAYA"
Built: Japan

	BUILT	TDW.
m.s. "MAERSK SERAYA"	1982	61,312
m.s. "MAERSK SENTOSA"	1981	64,285
m.s. "MAERSK SELETAR"	1981	64,220
m.s. "MAERSK SEBAROK"	1981	64,302
m.s. "MAERSK SENANG"	1982	61,121
m.s. "MAERSK SEMAKAU"	1983	63,800
m.s. "MAERSK SERANGOON"	1983	63,511
m.s. "MAERSK SEMBAWANG"	1984	63,692

m.s. "MAERSK TITAN"
Built: Burmeister & Wain

	BUILT	TDW.
m.s. "MAERSK TITAN"	1977	63,990
m.s. "MAERSK TAURUS"	1975	63,990

PURE CAR CARRIERS

m.s. "MAERSK WAVE"
Built: Japan

	BUILT	BILER
m.s. "MAERSK WAVE"	1980	2,027
m.s. "MAERSK WIND"	1981	2,027
m.s. "MAERSK SKY"	1982	2,411
m.s. "MAERSK SEA"	1987	2,505
m.s. "MAERSK SUN"	1987	2,505

m.s. "MAERSK CREST"
Built: Japan

	BUILT	BILER
m.s. "MAERSK CREST"	1983	3,150
m.s. "MAERSK CLOUD"	1983	3,150

PLATFORM/SUPPLY VESSELS

m.s. "MAERSK PUNCHER"
Built: Holland

	BUILT	BHP/TDW.
m.s. "MAERSK PUNCHER"	1976	3,200/1,962
m.s. "MAERSK WORKER"	1976	3,200/1,936

m.s. "MAERSK ASSISTER"
Built: Norway

	BUILT	BHP/TDW.
m.s. "MAERSK ASSISTER"	1983	5,200/3,003
m.s. "MÆRSK ATTENDER"	1982	6,960/2,972

m.s. "MAERSK TENDER"
Built: Norway

	BUILT	BHP/TDW.
m.s. "MAERSK TENDER"	1973	5,300/1,431
m.s. "MAERSK TACKLER"	1973	5,300/1,445

Of similar type:	BUILT	BHP/TDW.
m.s. "MAERSK TRADER"	1973	6,160/1,350

m.s. "MAERSK FIGHTER"
Built: Norway

	BUILT	BHP/TDW.
m.s. "MAERSK FIGHTER"	1976	7,040/1,042

m.s. "MAERSK HANDLER"
Built: Japan

	BUILT	BHP/TDW.
m.s. "MAERSK HANDLER"	1980	7,040/1,938
m.s. "MAERSK HELPER"	1980	7,040/1,938

ANCHOR-HANDLING TUGS

m.s. "MÆRSK BATTLER"
Built: Odense Staalskibsværft A/S, Lindø

	BUILT	BHP/TDW.
m.s. "MAERSK BATTLER"	1976	8,400/560
m.s. "MAERSK BLAZER"	1977	8,400/560
m.s. "MÆRSK BREAKER"	1977	8,400/560
with fire-fighting equipment:	*BUILT*	*BHP/TDW.*
m.s. "MAERSK BEATER"	1976	8,400/560

MULTIPURPOSE/TUG/SUPPLY VESSELS

m.s. "MÆRSK MASTER"
with fire-fighting equipment
Built: Odense Staalskibsværft A/S, Lindø

	BUILT	BHP/TDW.
m.s. "MÆRSK MASTER"	1986	16,200/2,395
m.s. "MAERSK MARINER"	1986	16,200/2,395

m.s. "MÆRSK CLIPPER"
with fire-fighting equipment
Built: Dannebrog Værft A/S, Lindø

	BUILT	BHP/TDW.
m.s. "MÆRSK CLIPPER"	1983	14,400/2,076
m.s. "MAERSK CUTTER"	1983	14,400/2,076

m.s. "MAERSK RETRIEVER"
with fire-fighting equipment
Built: Odense Staalskibsværft A/S, Lindø

	BUILT	BHP/TDW.
m.s. "MAERSK RETRIEVER"	1979	13,000/1,965
m.s. "MAERSK RUNNER"	1980	13,000/1,965
m.s. "MAERSK RULER"	1980	13,000/1,965
m.s. "MAERSK RANGER"	1980	13,000/1,965
m.s. "MAERSK RIDER"	1982	14,400/1,930
m.s. "MAERSK ROVER"	1982	14,400/1,930

m.s. "MÆRSK LEADER"
Built: Holland

	BUILT	*BHP/TDW.*
m.s. "MÆRSK LEADER"	1987	12,000/2,500
m.s. "MÆRSK LOGGER"	1987	12,000/2,500
m.s. "MÆRSK LAUNCHER"	1988	12,000/2,500
m.s. "MÆRSK LIFTER"	1988	12,000/2,500

m.s. "MAERSK SUPPORTER"
Built: Korea

	BUILT	*BHP/TDW.*
m.s. "MAERSK SUPPORTER"	1983	10,880/2,150
m.s. "MAERSK SERVER"	1983	10,880/2,150
m.s. "MAERSK CHIGNECTO"	1983	10,880/2,150
m.s. "MAERSK GABARUS"	1983	10,880/2,150
m.s. "MAERSK BONAVISTA"	1983	10,880/2,500
m.s. "MAERSK PLACENTIA"	1983	10,880/2,500

m.s. "MÆRSK DISPATCHER"
with fire-fighting equipment
Built: Frederikshavn Værft A/S

	BUILT	*BHP/TDW.*
m.s. "MÆRSK DISPATCHER"	1981	9,000/2,136
m.s. "MÆRSK DETECTOR"	1981	9,000/2,136

DIVING VESSELS

m.s. "MAERSK DEFENDER"
Built: Singapore
Dynamic positioning, fire-fighting,
stand-by rescue

	BUILT	*TDW.*
m.s. "MAERSK DEFENDER"	1976	1,374

This list comprises vessels which are owned and/or managed by companies in the A.P. Møller Group


MÆRSK

Security training

The Fast Rescue Boat is efficient when people have to be picked up at sea.

Security training is obligatory for all who are sent out to work on DUC's platforms in the North Sea. The basic course for Mærsk Olie og Gas' personnel lasts for five days, while employees from other firms take a training course lasting two days. The main elements in these courses consists of sea-rescue and fire-fighting.

In addition to the basic course, which is, incidentally, followed up with refresher courses, there is a series of special courses such as a lifeboat captain's course, a fire leader's course and a first-aid course. The different courses, which are all held by the Danish Offshore School, take place in Esbjerg, Svendborg and on Fanø.

To give an idea of these forms of training, the Information Department held a security seminar specially for journalists. The first day was in the theory room at Mærsk Olie og Gas in Esbjerg, where focus was on the security organisation in connection with DUC's activities. The journalists took an active part in the group work concerned with the solving of security problems, and during the afternoon were given every possible chance to ask questions on the subject.

The second day was characterised by practical exercises in realistic surroundings, partly on board the guard ship "ESVAGT ECHO", and partly at Esbjerg Fire School. They had the chance to try out survival suits in the water, and to put out oil and gas fires. The seminar gave the participants an idea of the great efforts made to make the workplaces as safe as possible.

Among the Fire School's training exercises is the extinguishing of fires caused by gas explosion.

Improved working conditions

At Lindø, Dock 3 has been equipped with two moveable covers, so that work on the hatch unit sections is no longer dependent on the vagaries of the weather.
Forty metres of the southern end of Lindø's 415 metre long and 90 metre wide dock 3 have been turned into a more permanent production area with two workplaces for the manufacture of hatch unit sections for the container ship series. The work was concluded in October 1989, and with it working conditions have been significantly improved for approximately 80 ship builders, welders, pipe and locksmiths.
Part of dock 3 has now been provided with two moveable covers, each measuring 40 by 20 metres, which gives a total area of 1,600 square metres. This space corresponds to a workplace for a hatch unit, and with two covered-over workplaces, shelter from rain and snow during the last half of the period that each section is lying around, is provided. The workplace is equipped with a light gantry crane, which covers the whole width of the dock, and is able to lift an entire hatch cover.
Since Lindø began to build the large container ships, the open space at the south end of the dock has been permanently utilised for the building of hatch unit-sections. In each of the approximately 294 metre long ships, there are eight hatch unit-sections.
At the same time as the covering of the dock area, a new dock wall, which encloses 40 metres of the dock's length, has been installed. In this way, flooding of the dock when there is a launching, is avoided.
A platform has been placed at the end of the dock in order to "feed" the area with materials. The materials can be driven to the platform and from there transported further to the individual workplaces.

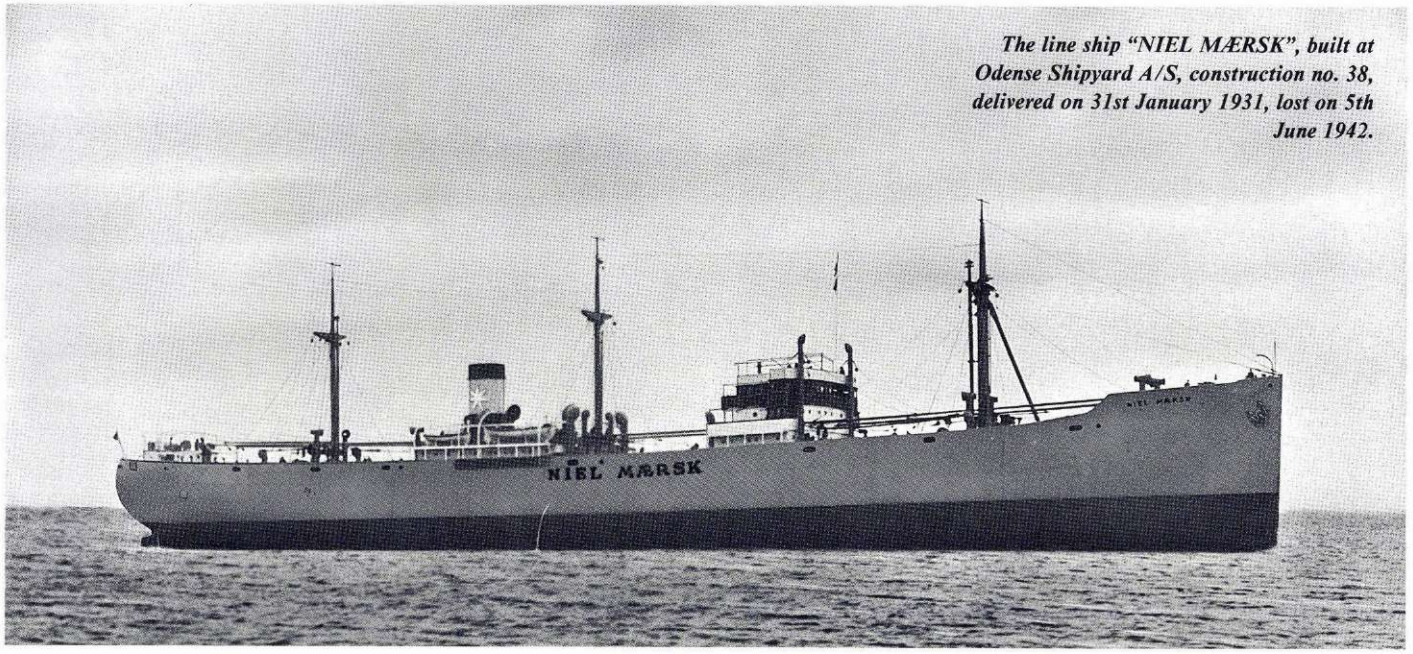
Dock 3 with the newly-installed cover, which provides shelter from wind, rain and snow. The platform in the middle is the place of delivery and the gantry crane is used both to lift the hatch covers and to transport the working materials.

New processing centre at DISA

In the Spring of 1989, DISA SYSTEM GROUP in Slangerup received an order for a large number of Self Propelled Star Streak Launchers from a firm in England. Because of this order, it was necessary for DISA to acquire a processing centre, to carry out several different castings in aluminium, which form part of the Launcher.
The contract was signed in May, and production was supposed to start in five months. Due to the shortness of the time limit, a processing centre had to be ordered within 3 weeks. After having contacted different importers of processing centres, we decided on a machine from Mazak Yamazaki Japan, a Mazatech H800 6 palette machine, which is controlled in four axes and which has 80 different tools.
In principle, a processing centre is a milling cutter, which is integrated with a computer. The different items to be processed, measuring 0.5 times 0.7 times 1 meter, are placed in the machine, and through the computer, the processing is carried out automatically.
Entering into the contract for the machine was the least of the problems. In order to be ready for production on time, the next task was to install the machine in the existing production environment. That meant, among other things, that the foundation had to be constructed.
On 1st June, the foundation was ready – 90 tons of cement had been used for this.
Now we were confronted by all the work of arranging the workplace, purchasing the cutting and holding tools and training our staff, as well as constructing the setting-up equipment.
By the time all this was completed, it was 25th September 1989, which was the day when the machine was supposed to arrive. The machine, incidentally, is 12 metre long, 4 metre wide and weighs 30 tons.
At 8 am the machine arrived at DISA on a truck. By 5 pm on the same day, the machine had been unloaded and put into position on its foundation. Preparation and starting up could now begin. It took 8 days, and afterwards production could get started.
The fact that all this could run so smoothly and within such a short space of time, was only possible because of the good cooperation between all parties involved.

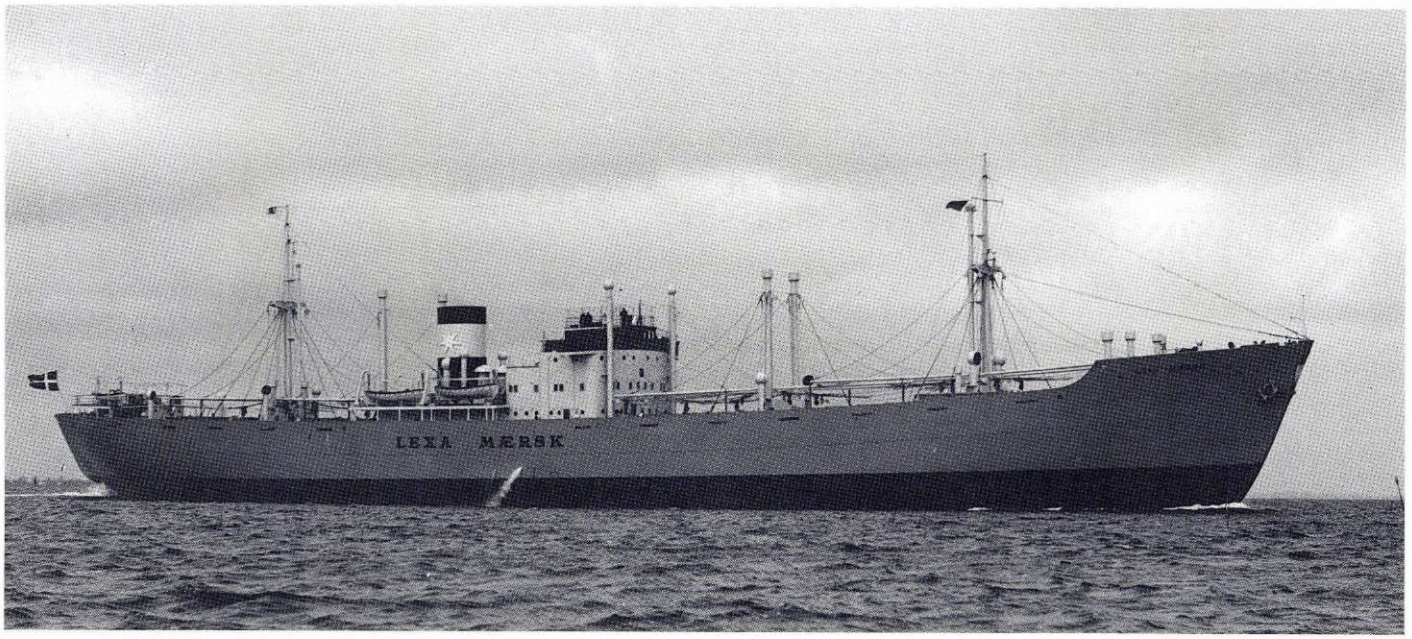
By BJARNE WENTOFT

The 30 tons processing centre is put into position.



The line ship "NIEL MÆRSK", built at Odense Shipyard A/S, construction no. 38, delivered on 31st January 1931, lost on 5th June 1942.

Memories of bygone days



The line ship "LEXA MÆRSK" built at Odense Shipyard A/S, construction no.76, delivered on 27th May 1939, lost on 12th November 1942.

On the 6th June 1941, the American Congress passed a law which authorised the requisitioning of several Danish ships – among them, twelve from the Mærsk Fleet with a total tonnage of 104,000 tons deadweight. Most of them sailed under the Panamanian flag, including the "LEXA MÆRSK" and the "NIEL MÆRSK", both of which had their names changed respectively to the "BUCHANAN" and the "JOHNSTOWN", previous winner of the Kentucky Derby.

Both ships were lost during the war, but there has been very little information about their fate.

Recently, the Shipping Company was sent a description of the torpedoing of the "JOHNSTOWN" (formerly the "NIEL MÆRSK") on 5th June 1942 by Mr. Verner Than Jensen, who was an able seaman on the ship. Mr. Than Jensen served with the Shipping Company during the first years of the war, but went ashore and joined the American army serving in North Africa, Italy and the South of France. Mr. Than Jensen now lives in California, where he is retired and has more time to think back on his young days and his experiences during the war. He relates:

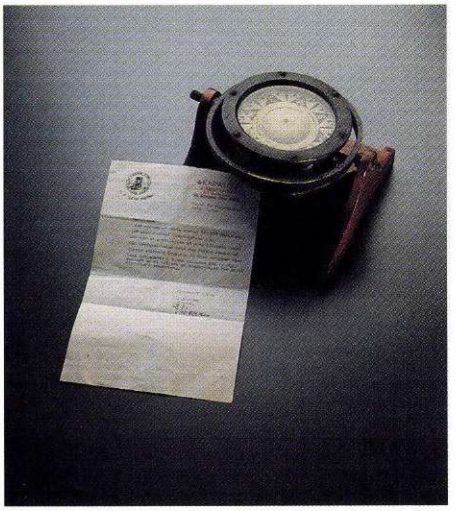
"I was at the helm when the first torpedo hit us. I held on tight to the helm as I could see the torpedo coming, so I turned it hard to starboard, but it was too late. It hit the engine, and the force of it lifted me two feet over the deck.

The Germans waited 20 minutes, and when they established that we were not sinking, they gave us one more torpedo. It hit us between the 4th and 5th hatches, so the ship went down stern first. The bow stood straight up in the air. The skipper, Captain A. V. Rørup was the last man to leave the ship, he jumped from the bow when half the ship was already under water.

In my lifeboat we had three sailors with broken legs. Captain Rørup swam over to the lifeboat I was in, and when he had come on board, he said: "Well, Verner, it is still your watch, so you have to take the helm in the lifeboat". So I held a compass between my legs and we set course for

Captain J. Berthelsen presenting the compass from lifeboat no. 4 to Mr. Troels Dilling and Mr. Bent Hansen.

The lifeboat compass from the "M/S BUCHANAN" (formerly the "LEXA MÆRSK"), and letter from the 3rd mate, Mr. J. Faldt Larsen.



East Africa, but just before it got dark we were taken up by a hospital ship from Wellington, New Zealand. We were on board for 4 days, after which we were put ashore in Durban, South Africa. Here we stayed at a hotel for a fortnight, and afterwards took the train to Capetown. There we stayed another fortnight and then came aboard an American troopship on route to Freetown in West Africa, and from there to New York. The voyage on board the "JOHNSTOWN" began in New York on 14th March 1942 and ended abruptly on the 5th June. We did not get back to New York until the end of August.

In spite of everything, we were lucky that we had unloaded in Karachi before we were torpedoed, as the cargo was quite liable to explode. The ship was loaded with ammunition, bombs, gunpowder and nitroglycerene in 20-litre drums. Some small wooden chambers were constructed without nails in amongst the cargo, and the drums were stacked up in these, so they could not roll around. And then we had 35 fighter planes in large wooden boxes. The wings had been taken off. Three of these boxes were loaded on top of each other right up to the bridge on the fore and quarter decks. If we had been hit with that cargo on board, both the ship and the crew would have been blown sky high – yes, it certainly wasn't a very pleasant cargo".

Another memento, which takes our thoughts back to the wartime years, arrived at the Shipping Company shortly before Christmas, in the form of a lifeboat compass. This was sent by Mr. J. Faldt Larsen, who is now 72 years old and lives in North Baltimore, Ohio.

Mr. Faldt Larsen sailed on the "INGE MÆRSK" and on the "GEORG STAGE". Until August 1942 when he joined the requisitioned ship "BUCHANAN" ex "LEXA MÆRSK" as a 3rd mate.

On 12th November 1942, the "BUCHANAN", formerly the "LEXA MÆRSK", was torpedoed in the North Atlantic on a voyage from USA to the east coast of England, with a cargo of war materials. Part of this cargo was 5,000 tons of aviation fuel, which exploded shortly after the crew had left the ship. One lifeboat was rescued after five days, two others after nine days, and the last one after 13 days on the stormy seas. Mr. Faldt Larsen was in one of the two lifeboats, which were at sea for nine days.

In the summer of 1989, the training ship, the "GEORG STAGE" was in USA and Mr. Faldt Larsen took the opportunity of visiting the ship. He arrived with a compass, a picture and a letter written on the original writing paper with the "LEXA MÆRSK"'s letterhead. In his letter from North Baltimore, Ohio, dated July 10th 1989, Mr. Faldt Larsen writes :

"Gentlemen!

I am hereby returning this compass from the "M/S BUCHANAN"'s (formerly the "LEXA MÆRSK") lifeboat no.4.

It was a privilege to serve under such professional men as Captain A. Jensen and his Chief Officer, Mr. Tang. As you no doubt remember, the "LEXA" was torpedoed in the North Atlantic in November 1942. I enclose a picture of the ship, taken from the Royal Airforce's "SUNDERLAND"."

Mr. Faldt Larsen asked Captain J. Bertelsen from the "GEORG STAGE" to take the lifeboat compass back to Denmark and make sure it arrived at the Shipping Company.

On 15th December 1989, true to his promise, Captain J. Berthelsen from the training ship, the "GEORG STAGE", presented the compass to Mr. Troels Dilling and Mr. Bent E. Hansen.

Among Mr. Faldt Larsen's memories of the "LEXA MÆRSK" were that the Chief Engineer was nicknamed "Quiet Knudsen" and that the second mate was called "Father-in-law" because if someone had done a good job, he often said; "You're such a nice fellow, you can marry my daughter". "Father-in-law" was H.F. Olsen, and the Chief Engineer was called Aa. K. Knudsen.

The Seamen's Effort

Over 6000 Danish seamen chose to remain on their ships in the fleet abroad during the war. They sailed all the seven seas, and for most of them it was an unsettled and dangerous life.

Mr. A.P. Møller deeply respected the efforts of the wartime seamen, and in 1943 he expressed his feelings in the following way :

"... it must be clear to everybody, that the ones who make the greatest contribution in wartime, are the seamen who sail the ships even though their lives are at stake. They do this in a characteristically calm and unostentatious way, and they personally usually don't think there is anything special in what they do."

Enquiries from customers are handled by Maersk Air's Sales Department.

Odense and back by EDB

By INGE B. SØRENSEN, MÆRSK DATA

Only very few people ever think about how much data processing lies behind every single flight. But nevertheless, the EDP systems contribute to a great degree, to the fact that a flight goes smoothly and comfortably for the passengers. Mærsk Data AS describes a flight from take off to landing, and what happens on the edp side.

In the beginning of November last year, the Sales Department at Maersk Air takes a call from a customer. On 2nd December a launching is to take place at the Lindø shipyard, and a number of guests are going to fly from Copenhagen to Odense and back to take part in the occasion.

Calculation of the offer

On the edp lists, the Sales Department can see that an aircraft of type Fokker 50 (F 50) with room for 56 passengers, is available. The aircraft is immediately booked in advance, while the further details are discussed with the customer. Information on the route, the type of aircraft, the number of passengers and the departure time is entered into the "The Flight Casting System". The system has all necessary information on the many different cost rates for the individual airports, the flying times to and from Odense, fuel consumption etc. The price for the flight is calculated on the basis of all existing and any new information. The EDP system has reduced about 30 minutes' calculation with paper, pencil and pocket calculator, to a calculation which can be worked out while the customer is at the other end of the telephone line.

All data is entered into the contract part of the EDP system and the contract is printed out with departure and arrival times. The flight is given manually an available flight-number, in this case, DM 841 Copenhagen/Odense and DM 842 Odense/Copenhagen. These numbers follow the flight throughout the EDP system, together with the aircraft's designation. The contract is sent to the customer, and an invoice is printed out on the basis of the information in the contract.

Internal distribution of information

The Traffic Department receives a copy of the contract, and all relevant data on the flight is entered into the central time planning system. The system combines aircraft capacity with contracted flights, and gives an overall view of the vacant aircraft capacity, which the Sales Department has at its disposal.

The reservation has now been confirmed, and information on the flight is release from the system and given to the four different departments concerned.

Information is transferred directly via the computer to :

The Flight Crew Office's Crew-system, which contains information about flight crews – in which airports they may land, which types of aircraft they may fly etc. Here the crew for this flight is chosen. In an F50, there must be a pilot, a co-pilot and two cabin attendants. The crew is appointed, and the Crew-system checks that the persons chosen fulfill the necessary conditions.

The Service Department, which looks after refreshments for the 55 passengers and crew.

The Station Departments in Copenhagen and Odense, which must be told when flight DM 841 and DM 842 is to take off and land, so that the department can

From the operations room at Maersk Air, where the course of each individual flight is carefully monitored.

A Maersk Air Fokker 50.

supply personnel to check in the passengers and handle the luggage.
The Technical Department, so that the technical staff can make sure that the aircraft is ready, and placed at the right gate for take off.

The flight itself
48 hours before the flight is to take place, data concerning the flight is transferred to the Flight Operations Department's system. The department's job is to make sure that traffic is operated according to plan, and to intervene in the case of delays, illness of a crew member, bad weather etc. (On 2nd December it is very foggy, so the Flight Operations Department is aware of the fact that it may be necessary to redirect DM 841 to Billund, and drive the passengers to Odense by bus).
As soon as the aircraft takes off, the Station Department sends a departure telegram to the computer with the precise time of take off, 8.45 am. The flight progresses according to plan and the aircraft lands in Odense at 9.23 am. From Odense an arrival telegram is immediately sent to the computer. The same procedure is carried out on the return flight, and the entire course of the flight is monitored on the screen in the Flight Operations Department's supervision room. The computer calculates the effective flying time - in this case a total of 72 minutes (return flight). The time is transferred to the technical systems.

Maintenance of the planes
The technical systems also make sure that the aircraft are checked according to the regulations and at the correct times. The regulations are made by the authorities, the suppliers and the internal departments.

A Maersk aircraft being checked in the hangar.

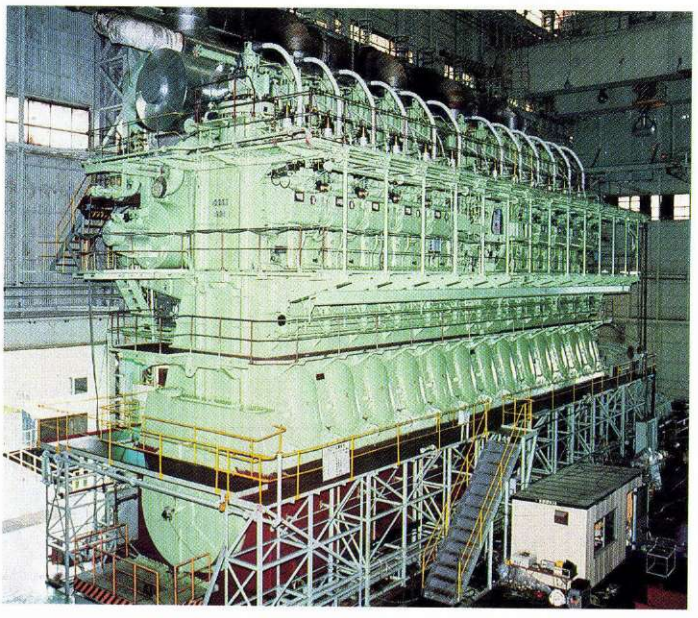
The technical systems keep a check on all parts of the aircraft and make sure that such things as the seats and tables on board, as well as the parts which are subject to special safety regulations, are checked at the right time. The time of these checks is calculated from the number of flying hours, landings or according to time by the calendar.
Maintenance of the aircraft includes many individual tasks. Every task has a job card with a detailed description of the work involved. Via the EDP system, the Technical Department prints out the job cards which corresponde to a particular check. From this information, the spare parts and any equipment that the mechanic may need for the check, are collected. In this way, the job card system ensures that each individual task is carried out in a safe and rational way.
It is also important that the precise data on flying times is constantly registered in the technical system. Consequently one can always see when the next check is to take place, and which days a aircraft must stay in the hangar and is therefore not operational.

After landing
The party, which has been to Funen, lands at Copenhagen Airport at 4.10 pm, and the passengers go their separate ways.
But the EDP systems still have many tasks to carry out. The financial system must make sure that all bills are paid. Copenhagen Airport demands the payment of a take off and passenger charge for flight no. DM 841 and others demand a handling charge for the handling of luggage, aircraft steps etc. The Civil Aviation Administration demands an overflight charge, and Odense Airport demands a take off and passenger charge for flight no. DM 842. In addition to all these charges, fuel and catering must be paid for.
The crew's daily rate of pay is calculated in the Crew system and forms the basis of their salaries.
Finally, all data is stored in a statistics system to be used in the later control of flying hours, budgeting, degree of utilization etc.

Maersk Air and Mærsk Data in collaboration
In addition to the systems mentioned in connection with flights DM 841 and DM 842, Maersk Air has many other systems, which are used, for example, in connection with international flights and scheduled flights on domestic routes.
Maersk Air's EDP activities have been looked after since the end of 1988, by Mærsk Data. Since November 1988, Mærsk Data has adapted and prepared 15 systems and has developed 3 totally new systems from scratch – and new ones are appearing all the time.

Rounding up...

12 cylinder Mitsui MAN B&W for the M-vessels



The world's largest diesel engine for Lindø's new construction no. 126 – the 7th advanced container vessel in the M-serie is expected to be sea-worthy in April 1990.

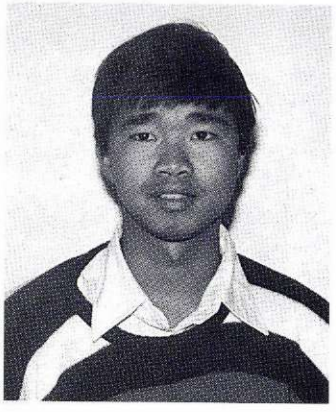
Reunion with "Arnold Mærsk"

About 10 years ago, Ngoc Nguyen was picked up by the container vessel the "ARNOLD MÆRSK" in the South China Sea, together with a crowd of his countrymen. Just before Christmas, the now 22-year-old Ngoc Nguyen had a reunion with his "rescue ship" in Tacoma, when the young Vietnamese signed on as a probationary officer.

Ngoc Nguyen came to Denmark after being set ashore in Singapore. In 1985 he sat the extended final state school exam, and has had several jobs since then, including that of interpretor, before he applied to be a probationary officer with A.P. Møller.

Shortly before Christmas, together with 69 of his schoolmates from Kogtved Naval School, Ngoc Nguyen was sent out for further training in the merchant navy. He is now doing the practical training towards his discharge book.

"ARNOLD MÆRSK" in Singapore.



Probationary officer Ngoc Nguyen.

Award to Norfolk Line

Corporate Managing Director, Mr. Jørgen Madsen receiving the trophy from the Dutch Minister for Foreign Affairs, His Excellency Mr. H. van den Broek.

Norfolk Line, which is part of the Maersk Company Ltd., has been awarded the prestigious Anglo-Dutch Enterprise Award.

The Award, which is promoted by the Netherlands-British Chamber of Commerce, was made in the "U.K. Large Company Category" at a presentation ceremony at the World Trade Centre in Rotterdam on Tuesday, 31st October 1989. The trophy is made of silver and gold, mounted on rosewood. Goodwill and co-operation between the U.K. and the Netherlands are symbolised by the converging silver arrows at the top, and the coastlines of the two countries are superimposed on the trophy in gold plate.

At the presentation ceremony, Mr. Jørgen Madsen, Corporate Managing Director said : "I believe that this award reflects the hard work of all the employees in Norfolk Line. In a service industry such as ours, it is the quality of the staff that counts".

The prize-winner was selected by a panel of 7 judges on the basis of initiative, flair, enterprise and commercial success.

Norfolk Line, established in 1961, has grown to become the market leader in trailer transportation between England and the Continent. The line operates 2,500 trailers, 3 ro/ro ferries and has 22 offices, directly employing more than 600 staff members throughout Europe. With several thousand customers, many of Europe's major exporters, importers and producers are represented. In 1989, Norfolk Line transported over 130,000 full trailer unit loads between the U.K. and the Continent.

Mærsk Data in Asia

Maersk Data Asia K.K. was inaugurated in January 1989.

Mærsk Data has established a subsidiary in Tokyo – Maersk Data Asia K.K.. The new company will offer assistance to Mærsk Data's customers in the Far East by helping them develop and maintain their EDP programmes. These customers are primarily firms in the A.P. Møller Group.

The Executive Vice President of the new company is the former Deputy Manager of Mærsk Data AS, Mr. Svend Palle Andersen.

Rounding up...

Siam Shoreside ICD in new premises

On 2nd December 1989, Siam Shoreside Services Ltd. moved from Na Ranong Road to its new premises at Bangna Trad. The new premises mean that Siam Shoreside is now located closer to Siam Shoreside Services Off-dock, Bangna and Thailand's main port.
The picture shows the new offices of Siam Shoreside Services Ltd.

At a religious ceremony, nine munks gave their blessing to the new premises.
After the blessing ceremony, refreshments were served. Open transport containers, with other containers placed above them to give shade, were utilised for the purpose.

Freight, USA – Chigago, Illinois

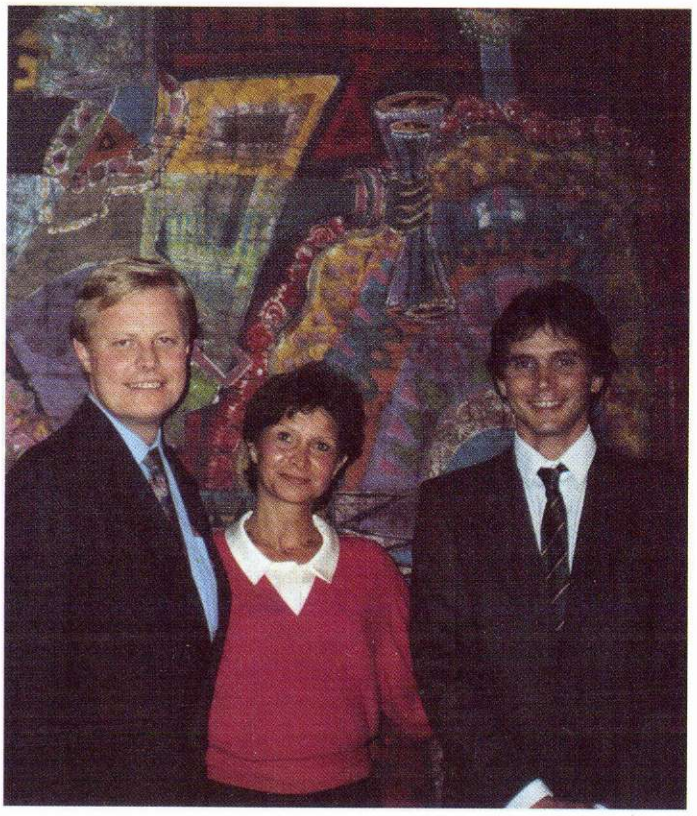
"Freight, USA" is a major trade fair for freight, transportation, trade and distribution, which was held in Chicago, Illinois on 17th – 19th October 1989. The trade fair was the first of its kind to be held in the USA.
Maersk Inc. Chicago (Oak Brook) took part in the fair with a stand in the exhibition hall, which also featured major manufacturers, shippers, trading houses and distributors.

During the fair, a three-day conference was held. The theme of the conference was "Freight, the Vital Link". The development in international trade and the opportunities this offers the transportation industry were the main topics of discussion at the conference.

The picture shows Maersk Inc. employees, Amy Mikan, Edward Sands, Nancy Ayers, Jill Schroeder and Terry Rudisill.

Art exhibitions in three APM-organisations

On 3rd October, A.P. Møller's Art Association held the opening of an unusual art exhibition in the Company's canteen at Esplanaden. Through Mr. Eric Mård, the former leader of Mærsk Togo S.A.R.L., contact was successfully established with a gallery in Lomé, which had a large collection of modern West African art in the form of paintings and batik works etc.
The works have been collected by the gallery owner, Michelle Brunet who lives in Togo. She and her husband have made many trips throughout West Africa and have "discovered" the artists. It has taken Michelle Brunet a number of years to get the exhibition together, as the individual artists live in areas spread over vast distances, covering Ghana, Togo, Benin, Nigeria and Burkina Faso. Many of them live in inaccessible areas several hundreds of kilometres into the bush, areas which one can only reach on foot or on horseback.
The art exhibited is contemporary art and therefore not to be compared with what is traditionally considered African art. The works are in a multitude of brilliant colours, and depict traditional motifs in untraditional ways.
During November, Maersk Air and Mærsk Data respectively were hosts to this unusual and distinctive art exhibition.



From the left Eric Mård, Michelle Brunet and her husband.

Automated off-dock terminal in Bangkok

When Siam Shoreside Services, an affiliate of Maersk Bangkok Branch, received permission from the Royal Thai Customs to operate an off-dock terminal for export containers, it was decided that this facility should be fully computerised, in order to improve our level of customer service. Consequently, in collaboration with Maersk Data, Tokyo, a data programme was developed. This programme is called "BREMIS", which stands for "Bangkok Realtime Equipment Management Information System", and its function covers both CFS and CY activities at the terminal. By the mere touch of a key, information can be transferred to the town office, where the bill of lading is issued. This has significantly improved our information flow, and Maersk is now a step ahead of its competitors with the only on-line off-dock terminal in town. Since it became operational last Spring, the terminal has achieved the highest record in container handling in Bangkok.

The picture shows a Maersk truck positioning an empty container ex port and exchanging documents at the gate, prior to driving to the grounding area as instructed by the control room above the gate.

Awards to 3 employees at Lindø

Three employees at the Lindø shipyard have been honoured for special efforts at work during 1989. At the yard's New Year reception, the Executive Vice President Mr. Kurt Andersen gave the prize for "Apprentice of the year" to apprentice Kathe Pedersen, while fitter Carsten Pedersen and pipe fitter John Larsen were each given the title of "Idea-man of the year".
"Idea-men of the year", Carsten Pedersen, 42 years old from Dalby, and John Larsen, 52 years old from Odense, have both been employed at Lindø for many years. They work at the pipe workshop, and are among the many employees who, in the course of the year, have sent in suggestions for ways to increase production, and safety measures. Together they have developed a method which protects the workers involved from welding spray from one of the workplace's automatic welding machines.
Kathe Pedersen is 21 years old and comes from Frederiksværk. When she could not find a place as an apprentice in North Zealand, she moved to Funen, where she started as a welding apprentice in February 1988. She has been chosen from among about 100 apprentices at the shipyard, and is described as an independent apprentice who is devoted to her work.
The three employees each were presented with an inscribed ship's clock and barometer as proof of their outstanding efforts in 1989.

"Apprentice of the year", Kathe Pedersen, and "Idea-men of the year", Carsten Pedersen and John Larsen with Executive Vice President Kurt Andersen.

ESPLANADEN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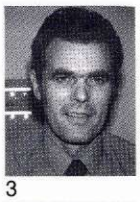
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40 Years Anniversary

1. Ib Kruse
   1 April

25 Years Anniversary

2. Asbjørn Lytzen
   1 April
3. Poul-Bent Beeken
   4 April
4. Magnus Svendsen
   21 April
5. Erik Hansen
   24 April

Retiring

6. Hans Karly Jensen
   31 March
7. Knud Rasmussen
   31 March

THE FLEET


1

2


3


4


5


6

25 Years Anniversary

1. Chief Engineer Carl Aage Abildgaard
   3 April
2. Radio Officer Heri Arthur Jacobsen
   21 April
3. Repair Engineer Carl Vogt Larsen
   25 April
4. Chief Engineer Ove Lindberg Eriksen
   26 April
5. Chief Steward Hans Flemming Poulsen
   13 June

Retiring

6. Captain Viggo Petersen
   30 April

THE YARD


1


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3


4


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10


11

50 Years Anniversary

1. Hugo I. Voss
   6 April

25 Years Anniversary

2. Torkel Lund
   1 April
3. Benny Ejler Clausen
   4 May
4. Jørgen Larsen
   4 May
5. Leif Jørgensen
   4 May
6. Ebbe M. Andersen
   18 May
7. Kirstine Mikkelsen
   1 June
8. Christophis G. Christophorou
   1 June
9. Kurt Nielsen
   15 June
10. Wenzel Sørensen
    15 June

Retiring

11. Erik Chr. Johansen
    30 April

ORGANISATIONS ABROAD


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2


3


4


5

40 Years Anniversary

1. M. Sawazumi (Kobe)
   20 April

25 Years Anniversary

2. K. Okumura (Tokyo)
   1 April
3. E. Marui (Yokohama)
   1 April
4. K. Hayashi (Osaka)
   1 April
5. T. Umetani (Osaka)
   1 April

MÆRSK OLIE & GAS


1


2


3

40 Years Anniversary

1. Viggo Ulrich (Esplanaden)
   1 April

25 Years Anniversary

2. Erik Anders Andreasen (Esbjerg)
   28 April

Retiring

3. Torben Lynge (Esplanaden)
   31 May

ROSTI


1

25 Years Anniversary

1. Leif Thomsen
   11 March

DISA


1


2

25 Years Anniversary

1. Børge Skov Nielsen (Herlev)
   21 May
2. Ole A. Jørgensen (Herlev)
   6 June

ROULUNDS


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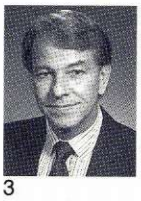
2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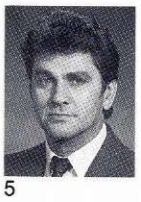
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40 Years Anniversary

1. Axel Jensen
   17 April

25 Years Anniversary

2. Henry Hoby
   23 April
3. Palle Andersen
   1 May
4. Poul Skov Hansen
   3 May
5. Gyorgy Andras
   24 May

Obituary
The A.P. Møller Companies regret having to announce the following deaths:

Jacob Wind
BUKH
18 December

Mogens Vang Nielsen
The Yard
19 December

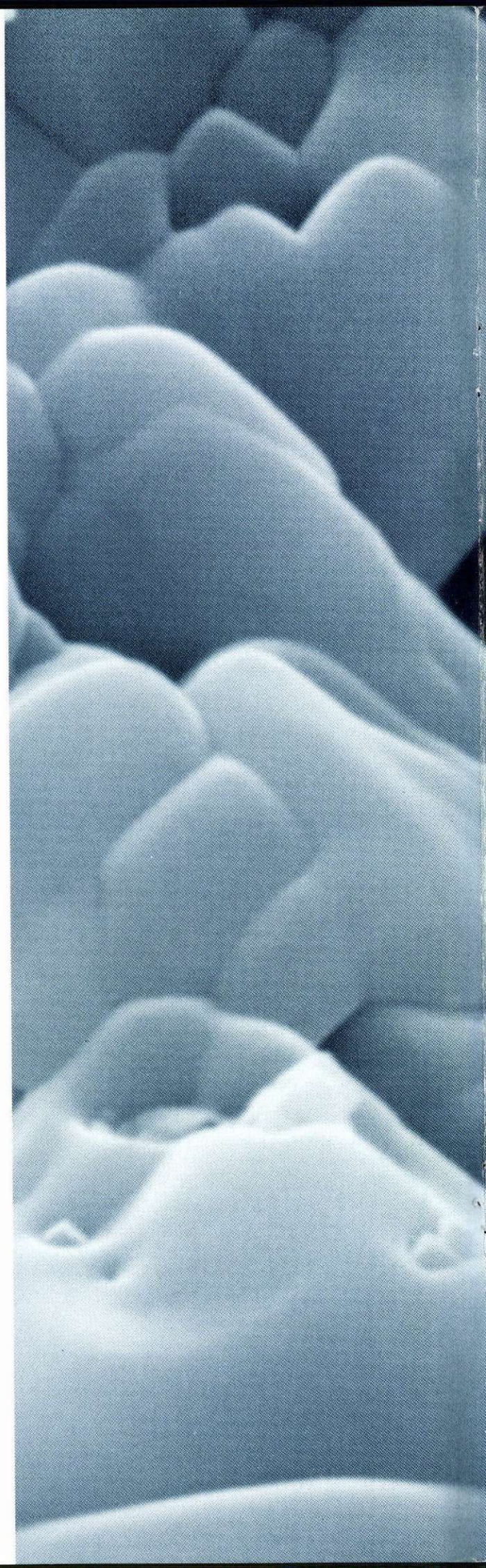
Masao Hara
Maersk K.K
21 December

Chief Engineer
Preben Mahler
ex "KIRSTEN MÆRSK"
5 January

Leo Kirkebæk Madsen
The Yard
8 January

AB. Seaman
Poul Erik Nielsen
ex "SALLY MÆRSK"
24 January

Stewardesse
Ketty Sofie Kolbe Nielsen
ex t.t. "KATE MÆRSK"
30 January



MÆRSK

A Scanning Electron Microscope photo of a typical North Sea oil reservoir chalk magnified 8,000 times. Overlain are Optical Microscope photos of other oil bearing reservoir rocks. Most of the DUC's oil and gas reserves are trapped in rock such as these.