



MÆRSK Post

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Volume 23, No. 3 September 1984 Reproduction permitted with acknowledgement of source. Deliveries of natural gas from the Tyra Field will commence on October 1, the result of five years' work and investments of about 10 thousand million Dkr. On top of this, years of costly exploration were required to find the field and assess its viability.

The first trial deliveries were carried out as planned. A.P. Møller and our partners in Dansk Undergrunds Consortium can be justifiably pleased to have completed on schedule the largest project in the history of Danish industry. The A.P. Møller company, Dansk Boreselskab A/S, as a DUC operator, has designed and constructed the field. I would like to take this opportunity of thanking all these people for their unflagging efforts to ensure that Dansk Undergrunds Consortium could live up to the obligations specified in the gas contract with D.O.N.G. A/S.

The Tyra Field was constructed at a time of high costs in the offshore industry, high interest rates, and high dollar prices. All this together with demands from Government for extra installations pushed up costs significantly. Even sharply rising gas prices cannot prevent returns from proving lower than predicted when the gas contract with D.O.N.G. was signed in 1979.

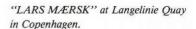
55 thousand million cubic metres of gas must be delivered over the next 25 years. After a two-year run-in period, deliveries will total about 2.5 thousand million cubic metres per year, answering to about 2.5 million tons of oil. Furthermore, the DUC oil production, which started in 1972, continues from three platforms: the Dan, the Gorm, and the Skjold. The Dan Field is being extended, and production from the new Rolf Field is being planned. By 1987 our oil production will total more than 3 million tons, so that the DUC North Sea production of gas and oil will make up about one third of Danish energy consumption.

When constructing the Tyra, as on previous projects, the DUC attempted to promote Danish involvement. Generally speaking, they were successful. Danish companies have provided about 50% of the investments, and Danes carried out about 55% of the work. Approximately 2,000 Danes worked on the Tyra project during its most labour-intensive phase. Many Danish firms supplied materials and manpower, and they have acquired invaluable experience. Dansk Boreselskab A/S have also learnt much from the Tyra project; and this experience will be utilized in future projects.

On October 1 the official opening of the Tyra Field will coincide with the formal opening of the D.O.N.G. network of gas pipelines in Denmark. Prime Minister Poul Schlüter has promised to be on the platform, along with officials, representatives from private industry, and D.O.N.G. Numbers will be limited because it is most difficult to accommodate large parties on the field.

The operation of the Tyra Field will also be a challenging undertaking. Normally, about 70 people will work on the field with as many standing by on shore for the fortnightly change in shift. The Esbjerg office of Dansk Boreselskab will take care of production and logistics, while Danbor Service ApS in Esbjerg will handle the administration. All these links come together at Dansk Boreselskab in Copenhagen who have overall responsibility for operations and production. In the near future, by the way, this company will change its name to Mærsk Olie og Gas A/S.

MÆRSK MC-KINNEY MØLLER





The "LARS MÆRSK", the latest A.P. Møller container vessel, had a busy time before leaving for New York on July 8 to join the USA-Far East Maersk Line service.

First she was named at the Odense Steel Shipyard on June 16, then she set out on her trial run, rescued three sailors in the Skagerrak, and berthed at Langelinie Quay in Copenhagen where her three-day »open house« arrangement caused traffic jams in the area.

New ship: the "LARS MÆRSK"

On Saturday, June 16, the Lindø Construction no. 102 was named the "LARS MÆRSK" at the Odense Steel Shipyard. Her sponsor was Lady Rosemary Baxendell, wife of Sir Peter Baxendell, Chairman of the Shell Transport & Trading Co. Ltd., London. The ship is the last of four container vessels developed as lengthened versions of a series of six ships built by the Yard for the A.P. Møller Shipping Company from 1980 to 1982. She is 270 metres long and can carry more than 3,000 20-foot container units. This makes her and the "LOUIS MÆRSK", delivered on March 30 this year, the largest MÆRSK container vessels.

Like the other ships in the series, the "LARS MÆRSK" has a single propeller and the world's largest single-axle diesel engine, a fuel-saving B&W type 12L90GBE yielding a regular service speed of about 23 knots.

Further essential details:

Length
Breadth 32 metres
Depth moulded 20 metres
Max. draught 13 metres
Deadweight, appr

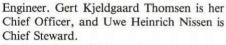
Captain Kurt Boisen Brændekilde is master of the ship, Jens Erik Larsen being Chief

At the naming ceremony at Odense Steel Shipyard: from the left Sir Peter Baxendell, Lady Rosemary Baxendell, who is the sponsor, Mr. Troels Dilling, Managing Director of the Odense Steel Shipyard, and the ship's master, Captain Kurt Boisen Brændekilde.



All those on board saw the Yard flag being replaced by the Company colours. A salute from the boatswain's pipe was followed by three cheers, and the "LARS MÆRSK" had been delivered.





She has a crew of 21 members.

Rescue operation

Early on Saturday, June 23, the "LARS MÆRSK" was towed from the Lindø Yard for her trial run in the Kattegat and the northern Skagerrak.

At 5.18 p.m. on Sunday a small decked-in motor boat was observed drifting at the mercy of winds and currents in the Skagerrak about ten nautical miles south of Larvik in Norway. The crew signalled for help. The "LARS MÆRSK" went to the rescue immediately, taking aboard three Norwegians one woman and three men all suffering from exposure - and their wrecked motor boat.

The Norwegians had left Tønsberg on the previous day to go for a short trip in the Norwegian archipelago; they had brought no supplies. When their engine failed, however, the boat started drifting out to sea. Waves were several metres high, and the crew had to hold on for dear life all night

with waves crashing down on them. They had comforted themselves thinking that they would soon be discovered by another ship, but a full 24 hours passed before they were spotted and rescued by the "LARS MÆRSK".

Busy days

On the Monday the "LARS MÆRSK" sailed for Copenhagen after a successful trial run. Several hundred Copenhageners enjoying the warm summer evening saw her arrive at Langelinie Quay. At 10.40 p.m. all her moorings were in place.

Meanwhile, the Public Relations Department were completing an exhibition on the A.P. Møller Shipping Company in a 250 square metre tent set up on Langelinie Quay. The exhibition had to be ready by morning when the first guests, officers of the "EMPIRE STATE", an American training vessel from the University of New York, Maritime College, would be shown round the "LARS MÆRSK".

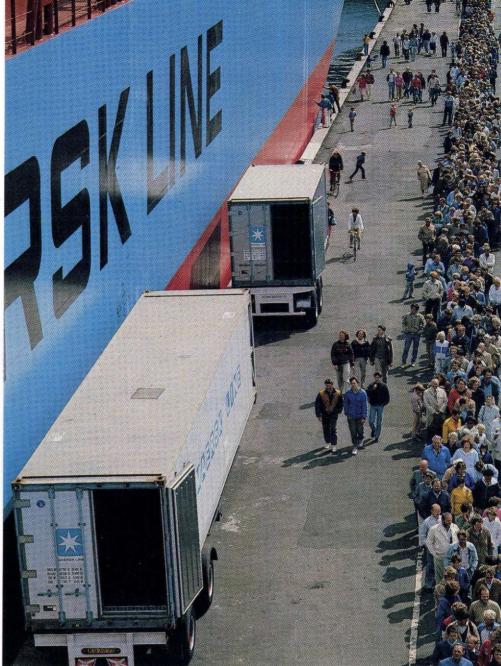
For the next 12 days the crew of the "LARS MÆRSK" and the Company staff involved

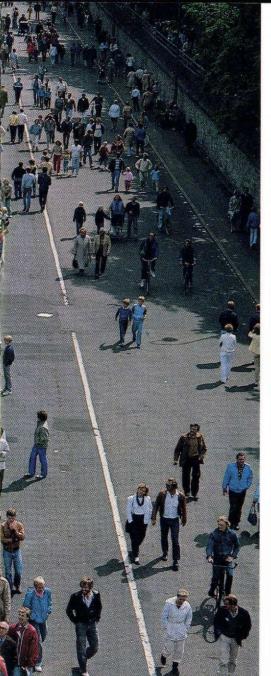
were very busy. Every day several groups of from 15 to 200 guests visited the ship and saw the display boards, models, and video tapes at the large exhibition charting the development of the A.P. Møller Shipping Company from 1904 to the present day. Many visitors had been invited specially: Company shareholders, board members, pensioners, staff and their families, business associates of various departments in the Company and at the Yard, affiliated companies, members of staff at the Royal Palace, politicians, and journalists.

Delivery

The Company received the "LARS MÆRSK" at 9 a.m. om Friday, June 29. Mr Troels Dilling, Managing Director of the Odense Steel Shipyard, opened the ceremony on the bridge:

- On December 11, 1981, we signed a contract for the first L-ship but, as we all know, we soon saw some rapid changes. On September 20, 1983, we heard that the "LOUIS MÆRSK" and the "LARS MÆRSK" must be longer than the first ships by twice 40 feet.

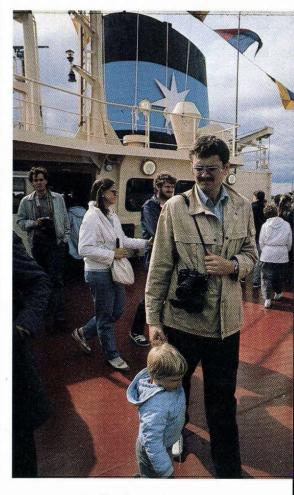




Long queues of adults and children waited cheerfully and patiently for hours to get on board the "LARS MÆRSK", where they showed great interest in all the many instruments on the bridge, and also in what the crew were getting for dinner.







They would accommodate 3,088 TEU with four layers on deck. We have completed our task and are very pleased to be able to hand over the ship today.

Senior Vice President Bent E. Hansen, of the Technical Organization, briefly stated that no outstanding business prevented delivery.

Shipowner Mr Mærsk Mc-Kinney Møller wished to say a few words before this, the first delivery which he had attended in person for many years, took place. The "LARS MÆRSK" was a special case: the tenth in a series of good ships from the Yard; the Technical Organization of the Company had done a professional and skilled job, particularly in view of the fact that the size of the ships had been changed in the process. Mr Møller continued:

- Langelinie is a special place to me. Here my father disembarked every day for nearly 30 years, and here I have myself enjoyed many early morning walks. Langelinie also seems closer now that we can walk along the water front all the way from the St. Annæ Square. The Amaliehaven, the Offices, and now the "LARS MÆRSK", about to start her "open house" arrangement, all mark the presence of the Company along the front. Finally, Mr Møller congratulated Captain Brændekilde and his crew.

From the port wing of the bridge all those on board saw the Yard flag being replaced by the Company colours. A salute from the boatswain's pipe was followed by three cheers.

Delivery had taken place.

"Open house"

Visits culminated on Saturday, June 30, Sunday and Monday, July 1 and 2. The "LARS MÆRSK" was open to the public from 10 a.m. to 5 p.m. and the exhibition was open from 10 a.m. to 8 p.m.

On Saturday the first hour was quiet. Visitors could go directly on board the "LARS MÆRSK", following a signposted itinerary through the ship. Officers were ready along the route to answer all questions. But then the rush intensified and in a short while Langelinie Quay grew so crowded that the police had to close the area to

motorcars. Traffic jams occurred even though Radio Denmark broadcast requests to motorists to park their cars by the Royal Palace and walk to Langelinie.

Soon long queues started forming alongside the "LARS MÆRSK" where adults and children were waiting cheerfully and patiently for hours to get on board. As early as two o'clock that afternoon visitor no. 10,000 was greeted with flowers and champagne by Captain Brændekilde.

The exhibition was crowded, too. 58 display boards, ships' models, and a model oil rig were subjected to close scrutiny, as were the films "The Course is Set" and "The Oil People". Company staff available to help visitors, answered a large variety of questions.

On Sunday the rush, the crush, and the traffic jams were even greater. Soon Captain Brændekilde again presented flowers and champagne - to guest no. 20,000. So there had been more than enough to do for the crew of the "LARS MÆRSK" and the Company staff when the last visitors left the exhibition at 8.30 p.m.

An exhibition, showing the development of the A. P. Møller Company from 1904 to the present day, was displayed in a 250 square metre tent on the guay.





Many people turned out on Sunday morning, July 8, to wave goodbye to the "LARS MÆRSK" after her two weeks in Copenhagen.



Monday was slightly less hectic and the next days were reserved for invited guests. On Saturday, July 7, Company staff and pensioners with their families closed a long list of visitors.

Departure

At 9 a.m. on Sunday, July 8, the "LARS MÆRSK" sailed for New York to join the Maersk Line USA-Far East service. She was waved off with many good wishes from people who had turned up for her departure after two weeks at Langelinie. Her visit will be remembered as a real City event, and that's what it was. No fewer than 29,421 visitors went on board the "LARS MÆRSK" and 37,634 saw the A.P. Møller exhibition. According to Mr Ulf Emcken, security officer for the arrangement, the figures equal 1,344 visitors per hour!

Many guests did more than ask questions. They expressed positive feelings towards Company activities at home and abroad. Their attitude was summed up in one of the letters sent in to Copenhagen newspapers:

"I was one of many thousand fortunate visitors who saw the new A.P. Møller container vessel, the Lars Mærsk, at Langelinie Quay. I found it particularly impressive to think that a small country like Denmark can construct a ship like that.

The project must have involved many highly qualified workers, draughtsmen, and engineers. As a Dane I feel proud to know that all the work was done in Denmark and that the Danish flag is flying from the mast. My special thanks to the A.P. Møller Shipping Company who found time during a very busy period to show the vessel to the public and arrange an exhibition describing Company activities throughout the world. The staff answered all questions in a polite and friendly fashion. This was service at its best. Looking at the start of the Company few will disagree that it has done extremely well to achieve its present position".

Helmuth Kristensen Lindenovsgade 3, Kbh. Ø.

Company sentiments in relation to the arrangement were very well expressed by Captain Kurt Brændekilde. He wrote to the same newspapers:

"To 29,421 Danes and other visitors to the Lars Mærsk.

On behalf of my crew and myself I would like to thank all those who visited the M.S. Lars Mærsk during our stay in Copenhagen. We are particularly happy to have met so many marvellous people who remained patient and cheerful in spite of the crush and who have left at tidy ship of which we may still be very proud. We haven't found a single pencil mark on our light walls.

We shall always cherish the memory of our visit to Copenhagen".



Prince Henrik arrives at Maersk Line K.K., Kobe.

Prince Henrik visits Maersk Line, Kobe



On May 23 H.R.H. Prince Henrik visited Maersk Line K.K. in Kobe during his fiveday tour of Japan. He was received by Mr. H.G. Andersen, President, Mr. S. Fujii, Vice Chairman, and Mr. K. Tamura, General Manager, all representing Maersk Line K.K. The Prince was accompanied by Mr. H.J. Assing, Head of Division at the Ministry of Foreign Affairs in Denmark, Ambassador B. Kimberg of the Royal Danish Embassy, Major O. Lohse Nielsen, aide-de-camp to the Prince, and Mr. B. Lindblad of the Royal Danish Embassy. An introduction to Maersk Line activities in Japan preceded the visit to the offices. After lunch at the Portopia Hotel the guests visited the Kobe Portisland Terminal. They saw the Maersk Line terminal office and were welcomed on board the container vessel "REGINA MÆRSK", which was named by Queen Ingrid in September last year. In the afternoon Prince Henrik returned to Yokohama for a concert given by the Royal Danish Orchestra, before going on to South

Prince Henrik greets the officers of the "REGINA MÆRSK".

Korea on the following day.

The Tyra Field -

the largest project in the history of Danish industry will become operational on October 1

The Tyra Field is the first Danish gas field and the corner-stone of the DUC part of the natural gas project. For many years it will also be the only source of Danish natural gas.

Planning started in 1979 when Governmentowned D.O.N.G. A/S had signed contract with all four partners of the Dansk Undergrunds Consortium: A.P. Møller, Shell, Chevron, and Texaco. In 1980 the engineers went to work. The first platforms were ordered in 1981 and installed 215 kilometres off shore in the North Sea in the winter of 1982. The remaining platforms were installed in 1983, and from June 1983 to May 1984 shifts of 900 men worked on the field to complete installations.

More than ten thousand million Danish kroner has been invested in the Tyra Field, and it has taken more than eight million man-hours to complete this, by far the largest project in the history of Danish industry.

Now it's ready. On May 31 this year the plant received gas for the first time, and on July 2 it passed it through the D.O.N.G. pipe line. Starting the largest plant in the history of Danish industry could be expected to create a few problems. It did. An 18-minute stoppage, a mere eighteen minutes. Otherwise, it worked perfectly.

The first contractual deliveries will be made on October 1.

East and West

The field comprises two production centres, Tyra East and Tyra West, placed three kilometres apart. This division was necessary in order to make the production wells cover and drain the entire structure of gaseous chalk. It is only about 35 metres thick, but it stretches six kilometres from east to west and about three kilometres from north to south, the reservoir lying nearly two kilometres below the surface. At this depth the wells may be deflected to reach about one and a half kilometres from the platform. Centres placed three kilometres apart may thus cover six kilometres and drain an area of approximately 2,000 hectares.

The platforms

Each centre has two production platforms accommodating 12 production wells. So far, nine wells in all have been opened on the four platforms. Each platform may open another three wells if the need arises. The wells were drilled by the "MÆRSK ENDEAVOUR" and the "DAN EARL".

During peak periods each of the 36 Tyra Field wells may produce 400,000 cubic metres of gas per day. This is an average figure, each well having its own "personality".

The plant will reach full production in 1986-87 delivering 2,5 thousand million cubic metres per year, an average of 6,8 million cubic metres per day. 17 out of the 36 wells can deliver this amount, if necessary, but daily production will only rarely be near the average figure. The contract stipulates that it may vary between 25 and 170 per cent of the average. This illustrates the flexible maintenance programme needed when gas is being produced around the clock 365 days a year.

Each production centre has a processing platform, the one on Tyra East being by far the largest. It weighs more than 20,000 tons in all, and its helideck is 69 metres above sea level. And it's another 37 metres to the bottom of the sea. Processing and separation systems have been installed in modules which also include auxiliary engines, a power station, control rooms, workshops, and living quarters. Tyra East has eight processing modules built by the Lindø Yard. The Aalborg Shipyard supplied the two processing modules for Tyra West as well as the accommodation modules for both centres. Water and condensates are separated from

the gas on the processing platform. Two pipe-lines take the gas and condensates from Tyra West to Tyra East. Water is cleaned to 45 ppm (.0045 per cent) before being dumped in the sea.

On Tyra East the gas is cleaned again before compression. This is sent ashore whereas the condensates are sent in pipe-lines to the Gorm field where further stabilization takes place before they are sent ashore mixed up in crude oil from the Dan, the Gorm, and the Skiold oil fields.

The condensates consist of heavy carbon and hydrogen compounds. In the ground they occur as steam which liquidizes when brought to the surface. Stabilizing the condensates means removing as much gas as possible before sending them through the pipe-lines.

Each centre has facilities for flaring gas or condensates if required for technical or precautionary reasons.

Tyra East has a riser platform taking - at present - five pipe-lines to or from Tyra East up to the level of the platforms. It also has pig launchers and receivers for cleaning pipelines





The first platforms were installed in the North Sea in the winter of 1982. The remaining platforms were installed in 1983, and from June 1983 to May 1984 shifts of 900 men worked on the field to complete installations. Now it's ready.

The subsoil

The reservoir underground consists of chalk deposits 62 to 65 million years old. The structure trapping the gas is known as an anticline. It may be described popularly as an "inverted soup plate". In this case the bottom of the plate describes a curve of just one to two degrees, so the height varies only 35 metres even though the structure is nine kilometres long. So it must be a rather flat plate.

A maximum height of only 35 metres makes the gas layer very thin at the edges. Even though the structure is up to nine kilometres long and up to six kilometres wide, the area which may be drained measures only 20 square kilometres.

The arch itself is generally thought to have been formed when more than 200 millionyear old salt deposits were shifted by the pressure from later deposits. The salt then formed cushions pushing up the layers above.

The reservoir

The Tyra Field is a pure gas field, which means that gas, condensates, and water all occur as steam in the reservoir. They only separate when brought to the surface. Separation may also be provoked by passing crude gas through the processing plant. Pressure in the Tyra Field reservoir is about 300 atmospheres, and the temperature is about 80 degrees centigrade.

On board the Tyra platforms

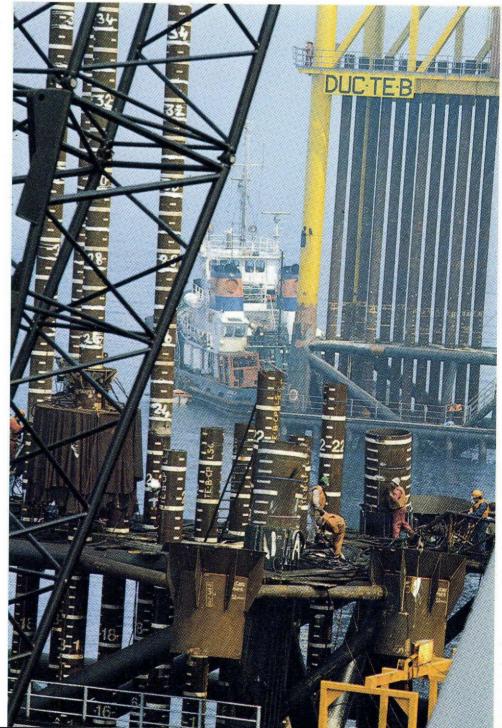
Two shifts work around the clock on the Tyra Field - 14 days at a time. Then they get 14 days off on shore. The day shift works from 7 a.m. to 7 p.m. breaking for lunch in the canteen, which has a large selection of everything except alcohol. Alcohol in any form is banned. They have two coffee breaks during which coffee, soft drinks, sandwiches, and cakes are served in separate duty messes.

The night shift works through the night till morning. They also have meal and coffee breaks, so at midnight there is an unusually varied selection of smorgasbord, two hot dishes, and several desserts.

Until the year 2009

On October 1, 1984, the efforts and investments required to create this plant in rough North Sea surroundings will produce their first results. But the field will remain operational for another 25 years contributing to Danish supplies of energy.





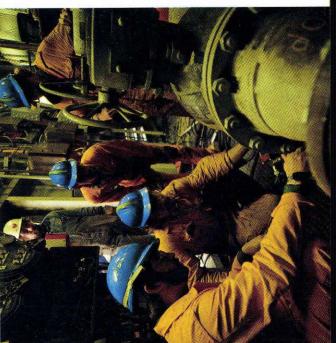












The MÆRSK fleet from 1904 to 1984



The MÆRSK star

The s.s. "LAURA" of 320 tons deadweight was bought in 1886. Captain P.M. Møller, Mr A.P. Møller's father, was her master and co-owner; she was the first ship to display on her funnel the seven-pointed star which became, in 1904, the funnel mark of the MÆRSK fleet.

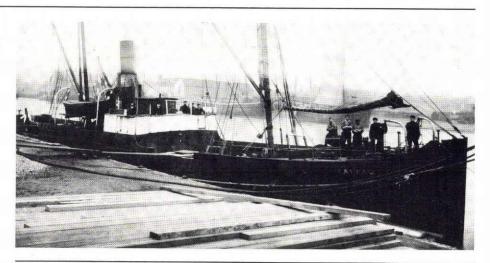
MÆRSK names

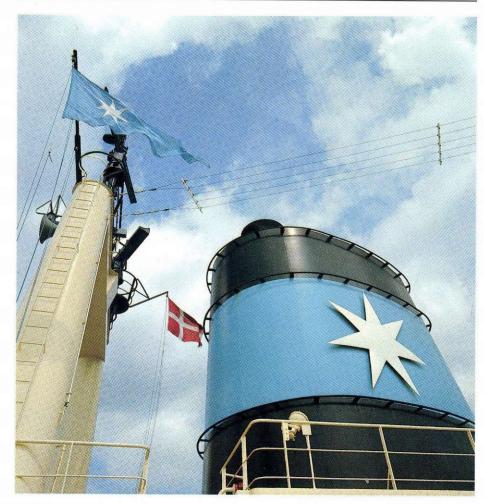
Today all Company ships have MÆRSK names. The first ones were named after Mr A.P. Møller's father and mother, and most other ships have been named after members of the family.

In recent years ships have been grouped according to types and sizes. Ships within the same group all carry names with identical initial letters, e.g. the "DIRCH MÆRSK" and the "DAGMAR MÆRSK", the "LOUIS MÆRSK" and the "LARS MÆRSK" etc.

MÆRSK blue

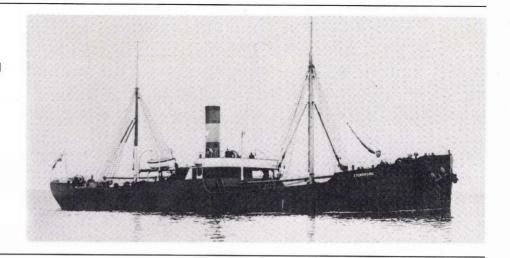
Most early MÆRSK ships were black with red lower hulls, but from 1923 almost all ships were light grey. There was a general wish to design a special image for the MÆRSK fleet. In 1955, therefore, two new ships were painted, on a trial basis, the colour of the blue ribbon of the MÆRSK star funnel mark. In 1957 it was decided to adopt a slightly lighter blue colour - known as MÆRSK blue - for all ships. This colour and the seven-pointed star have become symbols of the A.P. Møller Shipping Company.





1904 The first ship

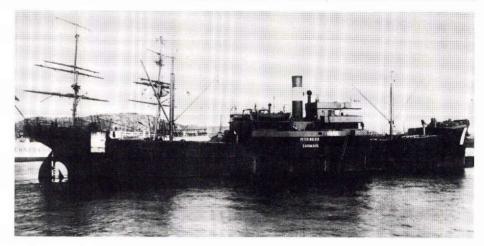
A two-year old English steamer, the s.s. "ADA", bought for 297,000 Dkr. and renamed the s.s. "SVENDBORG".



1906

First new construction

A Dutch shipyard built the first new Company construction weighing 2,200 tons deadweight. It was named the "PETER MÆRSK" after Mr A.P. Møller's father.



1912

In August the fleet numbered six ships weighing from 2,200 to 3,000 tons deadweight. The A/S Dampskibsselskabet Svendborg owned four, and the newlyfounded Dampskibsselskabet af 1912 A/S owned two.

1914-18

Before the First World War the MÆRSK fleet comprised 11 ships. Two, whose crews survived, were lost during the War; others were sold and some bought, and in 1918 the fleet still numbered 11 ships, but its total deadweight had decreased from 31,260 tons to 27,165 tons.

1920 First Odense ship

The Odense Steel Shipyard Ltd., founded by Mr A.P. Møller in 1918, delivered the "ROBERT MÆRSK", its first ship for the MÆRSK fleet.



1921 First diesel-powered ships

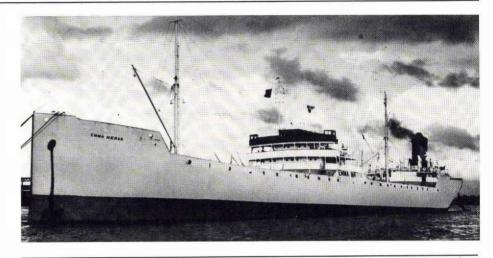
The MÆRSK fleet received its first dieselpowered ship, the m.s. "LEISE MÆRSK" of 4,400 tons deadweight, from Odense. She had a six-cylinder B&W diesel engine yielding 1,500 horsepower, the first socalled "longstroke engine".



1928 Tankers included

The MÆRSK fleet received its first five tankers. Three from Odense and two from B&W weighing from 8,110 to 12,750 tons deadweight. One was the m.t. "EMMA MÆRSK".

The fleet numbered 34 ships.



USA-Far East

The USA-Far East service, named MAERSK LINE, was opened in July 1928. From 1930 to 1932 four new ships entered the service, one being the m.s. "PETER MÆRSK" capable of sailing at 15 knots.



The Second World War

The Companies owned 47 ships. Six were on order: three tankers and three dry cargo ships.

1945 After the War

24 MÆRSK ships were lost during the Second World War; 148 Danish sailors perished.

1953 Fleet doubled

A vigorous rebuilding programme increased the fleet to double the tonnage before the War: 57 ships totalling 598,946 tons deadweight.

1957 New types

Traditional construction of dry cargo ships abandoned. On the m.s. "RAS MÆRSK" a general cargo ship of 6,970 tons deadweight, on her younger sister ships, and on other ships all machines and accommodation were placed aft.



1962 Speed increased

The speed of dry cargo ships, e.g. the socalled T-ships including the m.s. "TREIN MÆRSK", was increased from 17 to 21 knots.



1963 Larger tankers

From the new shipyard on Lindø, completed in 1959, the MÆRSK fleet received its first turbine tanker, the t.t. "ANGLO MÆRSK" of 51,400 tons deadweight.



1965

Product-carriers

Product-carriers are special tankers designed to carry diverse refined products in separate tanks. The MÆRSK fleet received the first ships of this type: the m.t. "DANGULF MÆRSK" and the m.t. "SVENGULF MÆRSK".



1966

The Company's new flagship, the t.t. "A.P. MØLLER" of 98,170 tons deadweight, was the largest Danish ship at the time.



1967

Sea-going trucks

Two supply vessels added to the fleet: the m.s. "MÆRSK SUPPLIER" and the m.s. "MÆRSK FEEDER" of 802 tons deadweight each - "sea-going trucks" taking supplies to the rigs.



1968

Loading capacity doubled with the t.t. "DIRCH MÆRSK", a supertanker of 205,600 tons deadweight.



1971

The first of eight MÆRSK tankers from the Odense Steel Shipyard, the t.t. "REGINA MÆRSK" of 284,500 tons deadweight, was the largest ship to have been built in Europe.



1972 Gas tankers

The fleet received its first gas tanker. The m.t. "INGE MÆRSK" can hold 12,060 cubic metres of liquid gas.



1973

The construction of the first fully containerized ship started with the m.t. "SVENDBORG MÆRSK", which could carry approximately 2,100 20-foot containers.



1974

Semi-container vessels

Construction of four so-called semicontainer vessels commenced. The first, the m.s. "MARCHEN MÆRSK", can carry conventional general cargo as well as numerous containers.

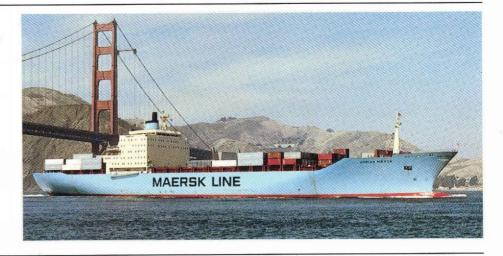


The Lindø Yard delivered the t.t. "KRISTINE MÆRSK", a tanker of 333,750 tons deadweight, the first of seven ships of this type.



1975-76

Fully containerized A-ships equipped with new fully automatic computer navigation systems.



1979

"Caroliners", a new type of dry cargo ship with ro-ro facilities and a large container capacity, were built at the Lindø Yard for the MAERSK LINE service. The m.s. "ELEO MÆRSK" was the first of six ships weighing 29,750 tons deadweight each.



The Lindø Yard handed over the m.s. "MAERSK RETRIEVER", the first of six sophisticated offshore vessels: Anchor-Handling Fire-Fighting Tugs equipped both to carry ordinary supplies and to do rescue and fire service.



1980

In October the Lindø Yard handed over the first of six L-type container ships, the m.s. "LAURA MÆRSK" of 31,600 tons deadweight with the world's largest single-axle diesel engine built according to the latest fuel-saving principles of optimal service economy.



In 1980-81 all seven C-ships were changed to container vessels; two had cranes installed.



1983

The first of three sophisticated product-carriers which may carry both crude oil and refined products, was delivered by the Lindø Yard. The m.t. "DIRCH MÆRSK" weighs 98,200 tons deadweight and is one of the world's largest product-carriers.



That year 40 feet were added to two A-ships; also their turbine engines were replaced by fuel-saving diesel engines. By 1985 all nine A-ships will have been rebuilt.



1984

In March the Lindø Yard handed over the m.s. "LOUIS MÆRSK", a lengthened version of the first L-ships. She is one of the world's largest container vessels weighing 52,000 tons deadweight; she is 270 metres long and can carry 3,088 20-foot containers.

The MÆRSK fleet numbers approximately 120 ships.



The Optima Project

BY HANS BROBY HANSEN

Maersk Line has served the Far East/Middle East trade since 1950, and here, as in other tradelanes of the world, it faces strong competition. Following delivery in 1982 of the first out of five E-ships sold to US buyers, an in-depth analysis was begun in order to take stock of the situation particularly with regard to the market, competition, and profitability.

Market analyses showed a clear tendency towards increased containerization, high levels of roll-on/roll-off cargoes, and a decline in breakbulk cargoes. The cargo mix of the trade obviously called for sophisticated vessels capable of transporting container and ro/ro cargoes. Vessels normally catering to both types of cargo, however, often experience delays in port due to the conflict between horizontal ro/ro and vertical container cargo operations.

It was evident, therefore, that innovative thinking was required for the service to maintain its strong position on the market with optimal results. A unique solution was needed ... a design that would offer fast and efficient service to Maersk Line customers ... vessels equipped to handle the complex mass of cargo moving betwen the Far East and the Middle East ... vessels which could perform smooth, simultaneous, independent loading and discharging operations ... optimal vessels.

Thus the Optima Project was born. The task was to upgrade the Far East/Middle East service so that it would offer

- economies of scale
- ro/ro frequency

- simultaneous, isolated container and ro/ro operations

- optimal flexibility as compared to traditional container vessels.

The Project Group set out to find suitable tonnage for the service. Building new vessels to cater to the future demands of the market would be costly, and while waiting for their delivery we might jeopardize our market shares. The risk would increase gradually as the E-ships are handed over to their new owners.

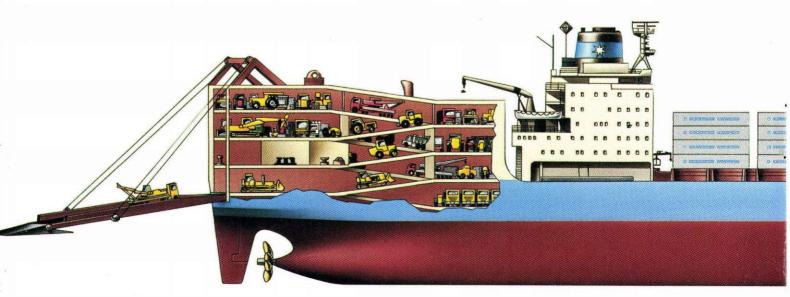
Futher studies and evaluations resulted in the decision to convert existing vessels. The "ADRIAN MÆRSK", the "ALBERT MÆRSK", and the "ARNOLD MÆRSK", when new, nine years ago, were acknowledged as fine examples of modern efficient liner tonnage - with their slim hulls, high speed, and large container capacity.

The A-ships have lived up to the demands placed upon their services ever since. Although these are not the first A.P. Møller ships to be rebuilt, conversion remains an impressive and efficient solution to the problem of securing suitable tonnage for a service within a relatively short span of time. The "ADRIAN MÆRSK" and the "ALBERT MÆRSK" are being converted at the Hitachi shipyard on the island of Innoshima, the "ARNOLD MÆRSK" at the Hitachi Sakai yard. According to the contract, conversion of the "ADRIAN MÆRSK" will be completed on September 17. The "ARNOLD MÆRSK" will be ready September 24 and the "ALBERT MÆRSK" on December 26.

During conversion the front section of a vessel is separated from the stem and an extra container section is added. The deckhouse is removed from the stern which is fitted with a prefabricated four-storey trailer deck. The sections are then rejoined. and the deckhouse is put back in place. Furthermore, the existing steam turbine engines are replaced by Hitachi B&W 8L90GBE diesel engines. They will reduce fuel consumption by some forty per cent, and they will yield an average service speed of 21 knots. When converted, the vessels can carry more than 1700 20-foot equivalent containers and 1500 lane metres (1.5 kilometres) of roll-on/roll-off cargo.

Sailing according to fixed, fortnightly weekday schedules the vessels will complete one round voyage in 42 days, thus offering the fastest transit times available to customers in this trade. Direct calls will be made at the ports of Busan, Nagoya, Yokohama, Kobe, Keelung, Hong Kong, Singapore, Dubai, Dammam, Bahrain, and Kuwait from where the "mother" vessel will return to Busan via Singapore and Hong Kong for the next voyage. Maersk Line operated feeder ships will provide connecting services for cargo to and from a full range of ports on the US West Coast, the Philippines, in Indonesia, Malaysia, Thailand, India, Pakistan, Qatar, Oman, Iran and Iraq. Chinese feeder vessels will take cargo to and from the People's Republic of China.

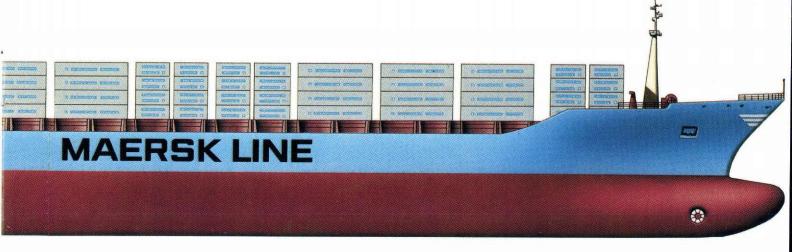
Hans Broby Hansen





The "ARNOLD MÆRSK" before and after conversion.







MAERSK AIR - the first 15 years

Once Maersk Air operated just one regular service, between Copenhagen and Odense; today it's one of the world's most versatile airline companies.

BY LOTTE VALBJØRN

1969

The A.P. Møller Shipping Company, having decided to become involved in air traffic, ordered three new Fokker Friendship propeller planes. Maersk Air was founded and took over Falck Air Service, its rights to fly between Copenhagen and Odense, its experienced staff, and its aeroplanes, which were, however, soon replaced.

1970

Maersk Air made its first official flight on January 1, having received some new Fokker Friendship aeroplanes at the end of 1969.

1971

Danair was founded in co-operation with SAS and Cimber Air to set up a number of Danish domestic services. Maersk Air bought the Oriental Air Transport Service Ltd., Hong Kong, a shipping and air freight company. In Copenhagen Maersk Air opened its first IATA travel agency. It bought the Bang and Raffel travel agencies which were later renamed Unisol, and finally taken over by Tjæreborg Rejser.

1972

Maersk Air became a partner of Copenhagen Airport Charter Handling, which handles Conair, Maersk Air, Scanair, and foreign charter flights at Copenhagen Airport.

1973

The year in which Maersk Air entered the jet age. Three Boeing 720Bs were bought, mainly for charter flights.

1974

Another two Boeing 720Bs were bought, and the Maersk Air IATA travel agencies grew rapidly.

Two Bell 212 helicopters based at Esbjerg commenced offshore operations on the North Sea. The hangars at Copenhagen Airport were expanded to accommodate the ever-growing traffic.

1976

Maersk Air received the first of several Boeing 737-200s replacing the Fokker Friendships which were being sold.

1977

The fleet of Boeing 737-200s was expanded to operate the Maersk Air Copenhagen-Faroe Islands service, among others. They are advanced aeroplanes whose low approach speed, great manoeuvrability, and sophisticated braking systems made them well suited to use the short runway at Vagar Airport on the Faroe Islands, where the weather is often unsettled.

1978

Overseas activities increased: pilgrims from Morocco were taken to Mecca in Saudi Arabia, Scandinavian groups to North America.

1979

The first Danish heliport opened at Esbjerg Airport for an increasing number of helicopter-department operations. The Maersk Air fleet had grown to 13 passenger planes, three helicopters, and one Business Jet.

1980

Leasing activities expanded. More planes flying for foreign airlines provided considerable foreign currency profits.

1981

Maersk Air introduced a new type of aeroplane in Denmark: the world's lowest-noise passenger plane, the DASH 7, flying to Danish domestic destinations. The helicopter department continued to grow and even operated a helicopter on the Faroe Islands. Maersk Air received another three new Boeing 737-200s giving it one of the world's most advanced fleets.

1982

When Danish domestic flights were reorganized, Maersk Air became sole operator on seven out of 11 services: from Copenhagen to Billund, Esbjerg, Odense, Rønne, Skrydstrup, Thisted, and Vagar on the Faroe Islands. The Maersk Air Travel



Headquarters of the Maersk Air group at Kastrup Airport.

The Maersk Air heliport in Esbjerg.



One of the first Maersk Air planes - a Fokker Friendship.

Maersk Air entered the jet age when buying three Boeing 720Bs in 1973. All aeroplanes had been painted MÆRSK blue by then.



The first Boeing 737-200, which was delivered in 1976, signalled a change of colour for all Maersk Air planes.

Agency added offices in London to existing ones in Copenhagen, Odense, and Århus.

1983

The helicopter division received two new Super Puma helicopters and opened its new buildings at Esbjerg Airport. A Maersk Air Bell 212 helicopter became the core of a helicopter company formed on the Faroe Islands for the Faroese Government.

Maersk Air entered the Scandinavian air freight market as a Cathay Pacific Airways general agent. The IATA travel agencies opened their officies in Singapore.

When taking over Air Business Maersk Air acquired its first foreign service from Esbjerg to Stavanger, via Thisted, where it operated a Brazilian Bandeirante. Air Business established Maersk Air on the market for regional flights.

1984

Things are moving fast. The IATA agencies have opened offices in Hong Kong and in Aberdeen, Scotland, Air Business has replaced its Bandeirantes with two new SHORTS 360s accommodating 36 passengers each, and Maersk Air has signed a contract for two Boeing 737-300s, which the American factory will deliver in 1985. The Boeing 737-300 is a sophisticated version of the 737-200 accommodating 149 passengers. It has new comfortable passenger seats providing plenty of leg room. Substantial sections of its body are made of light (composite) material, ensuring unsurpassed fuel economy together with its new engines. Its low noise frequency reduces its impact on the environment.

Two new activities have been started in 1984: Maersk Air has become a general agent for Airlanka, the national airline of Sri Lanka, and it has opened its first foreign service under its own name between Billund and Southend (London). A new EEC directive has made it possible for Maersk Air to gain its own concessions for this "interregional service" – a very promising development.

Today the Maersk Air fleet comprises eight Boeing 737-200s, three DASH 7s, two Super Puma and three Bell 212 helicopters, and one British Airspace HS 125 business plane. Air Business, an affiliated company, operates two SHORTS 360s.

Staff in the Maersk Air group now totals 760, and headquarters are at Copenhagen Airport South (Dragør).

Lotte Valbjørn

The Maersk Air business plane, a British Airspace HS 125, will be painted the same colour as the rest of the fleet.



A Super Puma helicopter ready for take-off at the heliport in Esbjerg.



A Bell 212 helicopter prepares to land on the Gorm Field in the North Sea.





An Air Business SHORTS 360.

A Boeing 737-200 being checked in the Maersk Air hangar at Kastrup Airport.







The prototype of the new Maersk Air plane, the Boeing 737-300, during a trial flight. The planes will be delivered in 1985.

A DASH 7 at Kastrup Airport.



The new Maersk Drilling house behind the Danbor Service Offshore Center on the outskirts of Esbjerg,

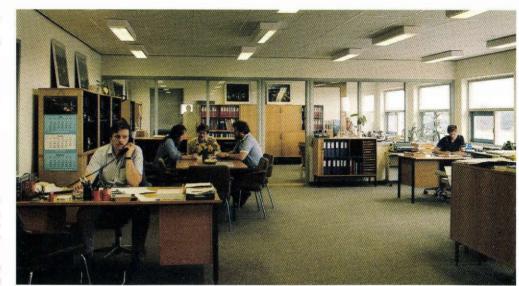
Maersk **Drilling** in Esbjerg

The Maersk Drilling Esbjerg Shorebase, once in the Danbor building at the harbour, is now master of its own house on the outskirts of Esbjerg, next door to the Danbor Service Offshore Center.

The house is 1,100 square metres; its two floors contain 900 square metres of storage space and 200 square metres for offices. In addition, 3,000 square metres of open storage space is used mainly for drill-pipes and pipes for casing wells.

These facilities will be the shorebase of the "MÆRSK EXPLORER" and the "MÆRSK ENDEAVOUR", the Maersk Drilling North Sea rigs, but spare parts for all Maersk Drilling rigs operating throughout the world, will also be stored here. The bringing together of spare parts, kept in five different places until now, will ensure that work can be organized more efficiently.

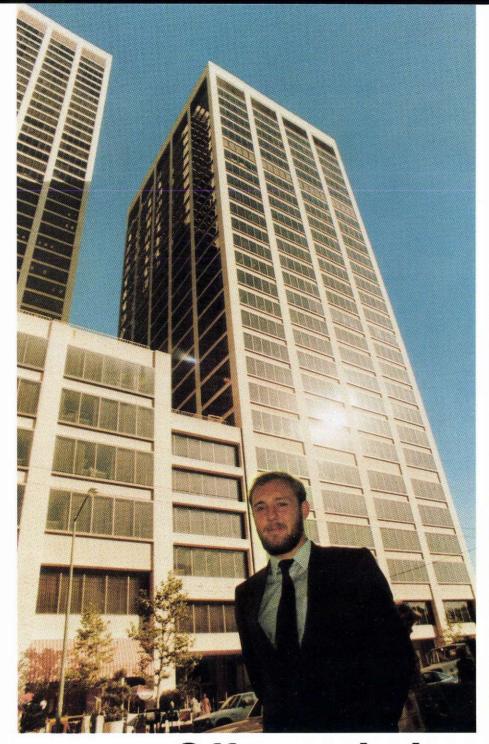
Soon all spare parts will have been collected, and the new world-wide store will contain 6-7,000 different items - from small washers to large generators. Then operations will be computerized so that any spare part may be discharged, at any time, quickly and efficiently.



200 square metres of office space provide good, spacious working conditions for staff at the Maersk Drilling Esbjerg Shorebase.



One Corner of the 900-square-metre indoor storage area which will hold 6-7,000 different spare parts - from small washers to large generators.



Henrik Larsen in front of Steuart Tower housing the offices of Maersk Line, San Francisco, and on the stairs which he rushed down when the building started to shake and danse.



Off to a shaky start

Henrik Larsen expected some surprises during his eighteen-month training period in the US, but he was unprepared for the welcome he received in San Francisco. His trip from Denmark had included brief visits in fast-paced New York City and in Charleston, "a place right out of *Gone with the Wind*". Having then travelled across the country by car, Henrik Larsen was anxious to survey his new surroundings in San Francisco.

He stopped first at the 25th floor Maersk Line office where he was scheduled to begin work three days later. Suddenly, with introductions barely completed, he noticed that "the building began to shake and dance". An earthquake registering 6.2 on the Richter scale was rocking the city, ironically only one week after the 78th an-

niversary of the infamous 1906 disaster. As the building continued to sway for a nerveracking thirty seconds, he had heard someone shout: "Welcome aboard!"

The tremors finally subsided, but Henrik Larsen had disappeared. In contrast to his more seasoned fellow workers who simply moved away from windows and hoped for an end to the shaking, the trainee was last seen proceeding towards the stairs. Some time later he returned and offered the following comments on his earthquake ordeal:

- It wasn't that rough, but I looked around and saw lots of unhappy faces and a few happy ones. Judging from the mixed expressions I could not predict how bad it was so I started looking for the stairs. You know, in the movies you're not supposed to take the elevator.

Henrik Larsen had descended twenty-five floors by foot.

Although this earthquake was considered severe and affected areas nearer the epicentre, no appreciable damage was reported within the city. Thanks to strictly enforced building codes officials remained confident that stronger tremors could be endured without serious results. Meanwhile, having experienced the ultimate California initiation, Henrik Larsen has settled down to a normal working routine. Perhaps during the next quake the voice shouting: "Welcome aboard!" will be his own.

Wayne Almond

Rounding up...



534 tons in a single lift

The m.s. "ARTHUR MÆRSK" has just delivered the largest single package ever transported by a Maersk Line container vessel. It was a ship's main engine, ten metres long, five metres wide, and ten metres high, weighing 534 tons. It took up the same amount of space as 27 40-foot containers in the hold of the vessel.

The engine was loaded in Kobe on May 29 and was delivered in Bremerhaven on June 26. It was discharged in a single tandem lift by two floating cranes which took it from the hold on to a coaster moored alongside the "ARTHUR MÆRSK". The entire operation was completed in less than six hours including the time required to remove the 108 chains which had been used to secure the engine during the voyage.



Silver wedding on board

On July 25 Chief Engineer Mogens Aagaard and his wife Jytte celebrated their silver wedding on board the m.s. "LOUIS MÆRSK" en route from Oakland to Hong Kong.

At 6.30 a.m. the couple woke up to songs and gifts, and in the evening the Company gave a pleasant dinner. Captain Henrik L. Solmer presented a gift from the Company.

AMVER Awards for MÆRSK ships

The following MÆRSK ships received AMVER Awards for 1983 in recognition of their contributions to the world-wide U.S. Coast Guard rescue service AMVER (Automated Mutual-Assistance Vessel Rescue System):

The "LEDA MÆRSK", the "LUNA MÆRSK", and the "MARIE MÆRSK" received

the certificate for the first time. The "LEISE MÆRSK" and the "LICA MÆRSK" were awarded their second successive certificates, the "CLIFFORD MÆRSK" her third, and the "ADRIAN MÆRSK", which is currently being re-built, received her eighth certificate in eight years



Rare view

Mærsk Post has received this unusual picture of Headquarters at Esplanaden from one of our neighbours, Mr. Jes Folke - not

surprisingly he felt that he must photograph this view from his windows.

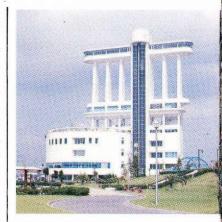
Model of the "CLARA MÆRSK" in Nagoya

The Nagoya Port Building, housing the Nagoya Marine Museum, was completed recently and has become a symbol of the Port of Nagoya. It was opened on Marine Day, July 20, at the start of the four-day Nagoya Port Festival '84.

The building was planned by the Nagoya Port Authorities as a public relations centre providing information at home and abroad on all aspects of shipping.

It is 63 metres and seven storeys high, and resembles a giant sailing-boat located as it is at the end of Garden Pier near the place where passenger boats berth. From the observatory on the seventh floor there is an excellent view of the port and the city.

In the Nagoya Marine Museum on the third floor a model of the "CLARA MÆRSK", built in



1968, is on display. It was a gift for the City and will now serve to attract visitors to the Museum. The pictures show the Nagoya Port Building and the model of the "CLARA MÆRSK" at the Marine Museum.

S. Osano



Award for heroic MAERSK master



On Tuesday, July 17, Sir Andrew Stark, Chairman of The Maersk Company Ltd., presented Captain Peter Aldous with The Royal Humane Society Honorary Testimonial, inscribed on vellum. Captain Aldous is the master of the "MAERSK RETRIEVER", part of the Maersk Company North Sea fleet based at Peterhead, Scotland, and he received the award in recognition of an act of extreme bravery.

Captain Aldous dived into a stormy Peterhead harbour on a cold night in mid-December 1983, to rescue a drowning man, who had been swept out from the breakwater by a large wave. Previous efforts to rescue him by throwing a life-belt to him had failed and he was on the point of succumbing to the waves when rescued by Captain Aldous.

At the presentation ceremony Sir Andrew Stark described his pride in Captain Aldous's action.

"The award is a great honour to Captain Aldous personally and to the Company. We are extremely proud, and offer him our most sincere congratulations".

Ann Thornton

Maersk Line Golf Day



Maersk Line (UK) held its annual Golf Day at St. George's Hill Golf Club, Weybridge, near London on Friday, May 11, 1984. The weather was fairly kind to us, by English standards, with some sunshine but rather too much wind. However, the rain stayed away and the day was enjoyed by everyone. The overall winner was Mr. J. Ruston

of G.E.C. with an impressive score of 39 Stapleford points. Pictured are, from left to right, Sir Andrew Stark, Chairman of The Maersk Company Ltd., Mr. S. Mitomi, Managing Director, Marubeni Europe B.V., and Mr. C. Rentz-Petersen, Director, The Maersk Company Ltd.

Ann Thornton



Three gold medals for Rosti girl

The Olympic Games for the Disabled took place in New York in June. Denmark did very well winning 25 gold, five silver, and 14 bronze medals, and came ninth out of 54 countries taking part.

Marianne Bærtelsen of Rosti played table tennis and won three of the Danish gold medals. She was born without one half of her right arm. Originally, she was supposed to act as organizer and interpreter; a few months before her departure for the U.S. she had been told that her events had been cancelled due to failing participation.

When going over the rules, however, the American organizers discovered that the original events had to be changed. Marianne Bærtelsen could then join the team event, ordinary singles, and "open" singles (for all disabled players). She felt, however, that she should not participate: following cancellation she had cut down on her training. But her partner and the Swedish trainers on the committee persuaded her to join. Which was lucky. She won all three events.

Her colleagues at Rosti heard



the news of the team win on television, and a few days later they learnt that she had won two more gold medals. They were thrilled and organized a splendid reception when she arrived at Copenhagen Airport. They were there to greet her with banners, flags, and red-white Rosti shirts. A few days later there was a small reception at the office, and again Marianne Bærtelsen was congratulated on her splendid performance.

Leif O. Jensen

L-ships lengthened

The A.P. Møller Shipping Company has contracted with the Hitachi Shipyard in Japan for the lengthening of four L-type container vessels. At present these vessels will hold about 2000 20-foot containers, and once they have been lengthened they will have the same capacity

as the newly-delivered m.s. "LARS MÆRSK": about 3000 20-foot containers.

Eventually, all nine container vessels of the Maersk Line USA-Far East service will have approximately the same capacity.

Personalia



ESPLANADEN









- 1. Augusta Friis S. Hansen 1 October
- 2. Henning Lind Olsen 1 October
- 3. Eli Jensen
 - 1 November

ORGANIZATIONS ABROAD







25 Years Anniversary 1. S. Adachi, Tokyo

12 November

Retiring

- 2. Jack Griffin, London 1 July
- 3. Tsuyko Mary Takaki, San Francisco 20 November

THE FLEET













25 Years Anniversary

- 1. Captain Finn Vibestrup Pedersen
- 2. Chief Engineer Jens-Erik Pedersen 25 October
- 3. Captain Tage Sigurd Nielsen 26 October
- 4. Chief Engineer Kaj Henry Lauridsen 16 November

- 5. Chief Steward Anker Bjerregaard 1 October
- 6. Captain Bjørn R. Borbye 31 December

DANBOR



25 Years Anniversary

1. Frits Kleis 26 November

THE YARD







































40 Years Anniversary

1. Helge Clausen 9 November

25 Years Anniversary

- 2. Poul Erik Andreasen
- 1 October
- Jørgen Gylling
 October
- Per Søgaard Mogensen
 October
- Poul Wøssner HansenOctober
- Jozef Ferenc Papp 30 October
- 7. Svend Aage Alexandrovitz
- 2 November
- Ole OlsenNovember
- Palle Villy NielsenNovember
- Vagn Arnfred Rasmussen
 November
- 11. M. Celebi
 - 1 December
- 12. Harry Christensen
 - 1 December
- 13. Poul Mikkelsen
 - 1 December
- Charles Tønder
 December
- 15. Asker R. Claesson12 December
- Hans Jørgen Mortensen
 December
- Aksel Jakobsen
 December
- Bent D. Steimle
 December

Retiring

19. Kai E. Nielsen 30 November

ROULUND









25 Years Anniversary

- Herluf Christensen
 October
- 2. K. G. Andersen 20 October
- 3. Eigil Nielsen 30 November
- Anne Iversen
 December

DISA





25 Years Anniversary

- Aage Herman Jensen (Herlev)
 18 October
- Willy Burlund Madsen (Herlev)
 December

Obituary

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

Eluf B. Sørensen The Yard 1 April

Flemming Sass Nielsen The Yard 19 June

2nd Engineer Ruben C. Parto ex m.s. »MC-KINNEY MØLLER« 19 June

Rig Materials Man Edvard S. T. Kristensen ex »MÆRSK VOYAGER« 23 July

Mechanic Knud Poul Nielsen Maersk Air 5 August

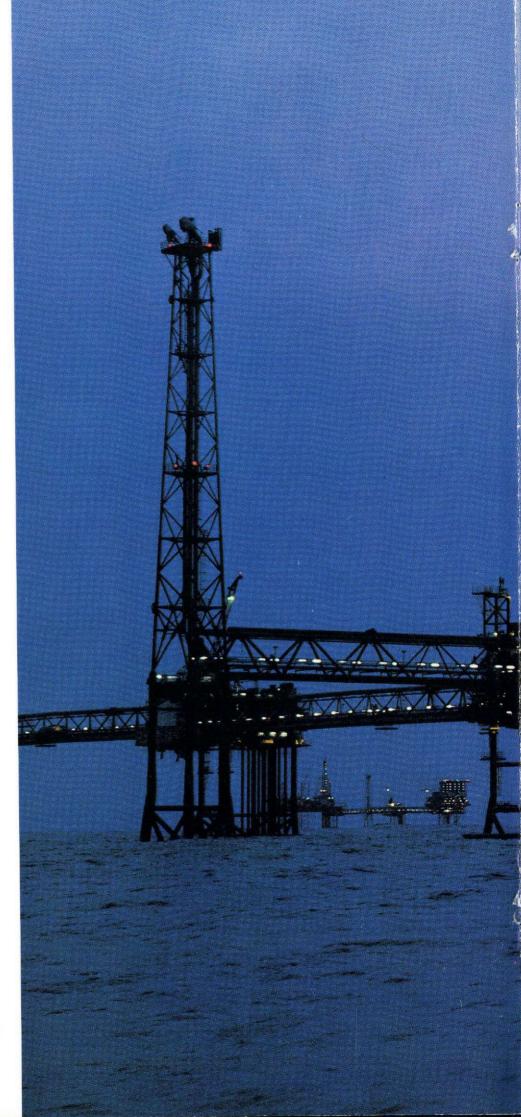
2nd Engineer Erling Hansen ex m.t. »SUSAN MÆRSK« 9 August

Radio Operator Willem Hendrik Cornelis Maan ex »MÆRSK VICTORY« 22 August

Jørgen Bjørn Petersen The Yard 25 August

Chief Engineer Flemming Nordahl Madsen ex m.s. »MAERSK FIGHTER« 31 August





Denmark's first gas field, the Tyra Field, which will be opened on October 1.