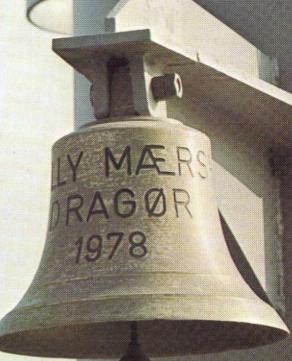
MÆFJEK Julius





Published by A. P. Møller, Copenhagen

Editor: Poul Jægerholt Design: Ole Jensen

Printers: scanprint, jyllands-posten a/s

Local correspondents:

HONG KONG: B. Arculli INDONESIA: Erwin Saropie

JAPAN: S. Osano

SINGAPORE: David Tan TANZANIA: H. H. Munck THAILAND: H. Mogensen

UNITED KINGDOM: J. D. Griffin U.S. EAST COAST: Barney Brennan U.S. WEST COAST: Jens Falster U.S. GULF: Laurence Keller

BUKH: S. Pilegaard DISA: Erik Hansen

MAERSK AIR: Bjarne Hansen MÆRSK DATA: Palle Andersen MÆRSK KEMI: V. Mohr ODENSE-LINDØ: J. Hellesøe PAPYRO-TEX: Helge Madsen PHARMA-PLAST: Vicki Stene

ROSTI: Lene Nielsen ROULUND: K. Lindskog

Front page:

On Sunday May 28th the newest MÆRSK product-carrier, the "NELLY MÆRSK", was presented at the Langelinie in Copenhagen. Photo by Niels Hovard-Christiansen.

Volume 17, No. 3. September 1978 Copyright reserved. In July 1928 the "LEISE MÆRSK" departed from New York, carrying general cargo for Japan and the Philippines, and with this the Maersk Line Far East Service took its beginning.

In keeping with Mr. A. P. Møller's habit we have not celebrated the 50 years' anniversary of the Line, but I feel it would be right to mark the event here.

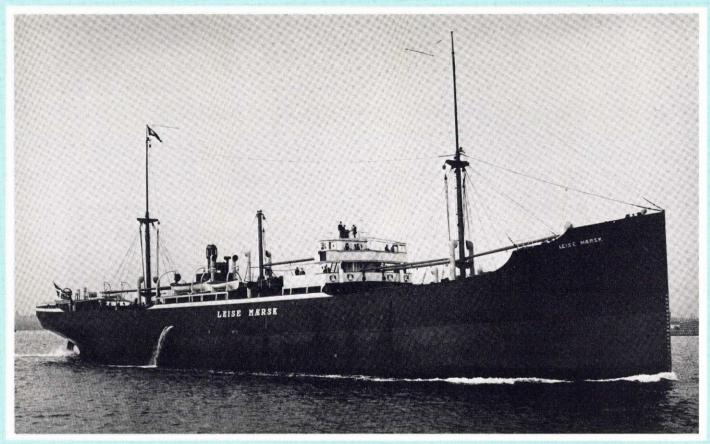
The "LEISE MÆRSK", the first diesel-powered MÆRSK ship, was built at Odense in 1921. It was equipped with a newly developed long-stroke engine, which, as Mr. Møller was assured by B&W director H. H. Blache, was ideal for this purpose. This proved to be so, and with her 4,200 tons, 1,600 indicated horse-power, and $10^{1/2}$ knots "LEISE MÆRSK" was an efficient, economical, and dependable ship. Later on the ship was lengthened, and the deadweight was increased to 4,900 tons, incidentally without any loss of speed.

Scheduled departures followed, and in 1932 Mr. Møller and Mr. Th. Host set out for the Far East to build up an efficient agency net.

Whereas all operations had so far been based on ships of 10½ knots, orders were placed with Odense, in 1929, for the ships "GERTRUDE MÆRSK" and "NIEL MÆRSK", each of about 8,500 tons deadweight and about 13 knots. Later on "PETER MÆRSK" and "ANNA MÆRSK" – about 15 knots, "LAURA MÆRSK" and "TREIN MÆRSK", and after the War a great number of new ships, beginning with "PETER MÆRSK" and "ANNA MÆRSK" to replace their predecessors, which had been lost. Gradually the tonnage became bigger, faster, more sophisticated, and the departures more frequent. And in 1975 the container service was commenced with the nine A ships which today serve on a weekly schedule.

The Maersk Line Far East Service between the USA and the Far East has seen good years, but also many difficult ones. We have maintained the initiative shown by Mr. A. P. Møller in 1928, and we are happy that Maersk Line is still holding its own in this service, flying the Danish flag in the many ports of call.

MÆRSK MC-KINNEY MØLLER



With the departure of m.s. "LEISE MÆRSK" from Baltimore on July 13th, 1928, Maersk Line's USA/Far East service was commenced.

Maersk Line

First sailings

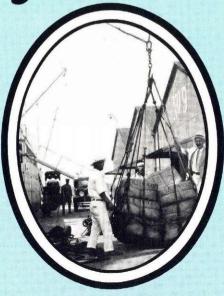
July 1928 became a turning-point in the history of the MÆRSK fleet. In this month the Odense-built motor ship "LEISE MÆRSK", of 4,200 tdw., departed from New York bound for Far East destinations. There was nothing very particular about that; also at that time MÆRSK ships frequently called at US East Coast ports. The exceptional thing about this departure was that the voyage marked the initiation, by the A. P. Møller shipping companies, of the Maersk Line Far East Service between the USA and the Far East, a regular freight route, which, apart from the war years, has now connected the two continents for 50 years.

The »LEISE MÆRSK«, built in 1921, was the first motor ship of the MÆRSK fleet and of the Odense Yard – and on this particular voyage it carried about 3,600 tons of cargo from the US East Coast to Japan and the Philippines. This service, which was later to become known internally as the Panama Line, proceeded direct to the Far East via the Panama Canal, without touching at any US West Coast ports.

Traffic in the 1930's

During the early 1930's the ships of this line started calling also at the West Coast ports of Los Angeles and San Francisco

50 years



Loading silk at Yokohama in 1932. The ship is m.s. "PETER MÆRSK", built the same year at Odense.

(Oct. 15 and Oct. 20, 1933, respectively), and the MÆRSK fleet was extended by a series of bigger and faster general-cargo vessels. Whereas the ships of the 1920's had largely been of 4,000 to 8,000 tdw. and with speeds about 10 knots, the new liners were all over 8,000 tdw. and with speeds of up to 15 knots. Two of the most well-known vessels of this period are no doubt the sister ships m.s. »PETER MÆRSK« and m.s. »ANNA MÆRSK«, of 8,800 and 8,700 tdw., respectively both of them built at the Odense Steel Shipyard in 1932. The two ships were employed by the Allies during World War II, and they were both lost in convoy service.

Commodities

If we take a random look at a manifest of the Panama Line from the 30's, we see a wide variety of commodities. From the USA the ships carried coal from Hampton Roads, automobile parts from Chester, Pennsylvania, cotton and tobacco from Savannah, and rubber, soya beans, asbestos, and other raw materials from various ports for the Japanese industry.

From the East the ships freighted silk from Shanghai and Japanese ports, tea from Keelung and Shanghai, toys and fancy articles from Japan and Hong Kong, Manila hemp, copra, tinned pine-

apples, and bagged sugar from the Philippines.

Port operations

Even at this stage a kind of budding »container traffic« developed, as automobile parts were delivered alongside in large wooden boxes, which were then put aboard directly, by a quayside crane or by the ship's own gear.

The traditional interpretation of dockside work, as depicted in fictional writings even to-day, is based on the manual work that was formerly to be observed when a ship came alongside: The hatch covers were removed manually, the ship's own gear hove sacks, boxes, and other general cargo over the side. In certain cases a continuous row of coolies trudged along a heavy plank from ship to quay and vice versa, carrying sacks of cargo on their backs. And where busy forklifts are today taking the cargo from the ship to the warehouse, or piling it on waiting trucks or railway waggons, the goods were formerly shifted by the ship's derricks or cranes on the quay from the deck or the holds to a horse- or cameldrawn cart on land.

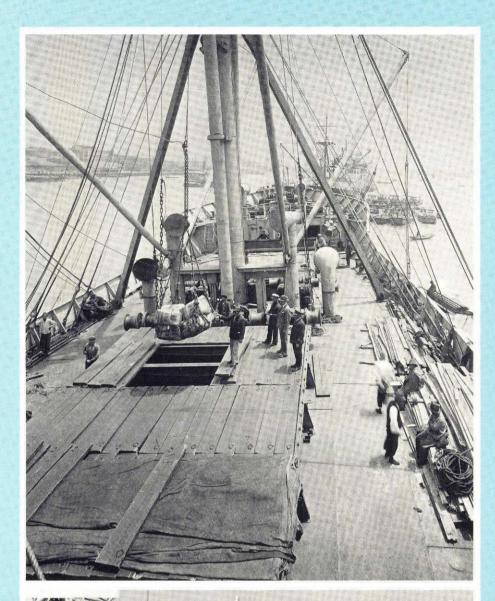
Post-war efforts

After the Second World War Maersk Line began employing new, larger types of dry-cargo vessels, especially on the Panama Line. The cargo capacity rose, the speed went up to about 18 knots, and the facilities for cargo-handling and stowing were improved year by year. A temporary climax was reached with the three T-type ships, »TREIN MÆRSK«, »THOMAS MÆRSK«, and »TOBIAS MÆRSK«, built during 1962-63 and each capable of carrying 11,000 tons of cargo (speed of about 22 knots).

Containers

The growing demand for container transportation during the 1960's again necessitated the building of new types of ships, and in 1967-69 the MÆRSK fleet was enlarged by a series of so-called semicontainerships, seven in all, bearing names beginning with a C. They have a deadweight of about 14,000 tons, carrying conventional cargo as well as containers. The latter are stowed through a triple hatch in the hold immediately in front of the accommodation, and also on the hatch covers and on deck secured by special lock catches. Usually a C ship carries up to 315 twenty-foot equivalents. Speed 23 knots.

Planning went on regarding the transportation of containers, and on September 5th, 1975 Maersk Line played its big trump card, with the "containeriza-







MÆRSK liner of the T type in Bangkok 1964.

tion" of the Panama Line. By throwing in 9 sister ships, 25,000 tdw. cellular container vessels, a weekly service from Port Newark and other East Coast ports, via Panama and the West Coast (Long Beach and Oakland), to the Far East was opened, with round-trips of 63 days. The new ships, all bearing names beginning with the letter A, are turbine-powered vessels travelling at speeds of up to 26 knots. Container capacity about 1,400 twenty-foot equivalents.

Offices

The main base of the Panama Line has always been and is still New York, where

during the initial years Maersk Line was domiciled at No 80, Broad Street, Manhattan. A move was later made to No 67 of the same street, and finally in 1963 the base was changed to One World Trade Center, one of the giant twin buildings owned by the Port Authority of New York and New Jersey.

Located at the southern end of Manhattan's West Side, the office windows on the 35th floor afford a magnificent view of the lower Hudson River. On a clear day it is possible to watch how the new A containerships of the MÆRSK fleet pass under the Verrazano Bridge at the entrance to the New York harbour,



Loading of containers below deck on an A containership.

proceeding along Staten Island towards Newark Bay and Maersk Line's container terminal, Berth 51 in Port Newark.

Piers

Maerk Line has been using port facilities in different parts of the New York harbour area during the past 50 years. At the beginning the ships moored at the long, slender "finger piers" in Lower Brooklyn, such as Piers 18 and 22. In 1958 operations were moved to Pier 11, where an almost 800-yard quay, and a warehouse parallel to the waterfront, afford ideal opportunities for cargohandling. Trucks are able to move up to a

MÆRSK ship at one of Lower Brooklyn's old finger piers.





Pier 11 in Brooklyn, opened in 1958.



Sideport operation at Pier 11.

Berth 51, Maersk Line's container terminal in Port Newark, New Jersey, inaugurated in September 1975.



ramp at the back of the warehouse and deliver their unit loads, which are then forklifted through the warehouse to the ship, usually being placed direct on the tweendeck through sideport operations. At the opening in 1958 Pier 11 was New York's first large pier of this unique type. However, the development towards containerization meant that even Pier 11 was insufficient after 16 years. The pier is still used by ships carrying conventional cargo, whereas the container operations are today concentrated in Port Newark. This new terminal was taken into use when on September 5th, 1975, the "ADRIAN MÆRSK" departed on the first scheduled voyage from Berth 51.

Feederships

To supplement the carriage by the A ships of containers from the US East and West Coasts to a number of main ports in the Far East, connections between the latter and a number of outlying ports and countries have been established. At the main ports containers are shifted to so-called feederships, which take care of the final distribution; e.g. from Singapore to destinations in Malaysia, Thailand, and Indonesia. See article on page 24 of this issue about the feedership "MAERSK MANGO", calling at the port of Tanjung Priok.

Development of Maersk Line routes

At the end of the 1940's a "Round-the-world" line was started, which, after the blocking of the Suez Canal in 1967, was incorporated in the main service between the USA and the Far East.

In 1949 came the line between Japan and Thailand, based chiefly on a big contract for railway material from Japan to Bangkok.

A line was opened in 1950 between Japan and India/Pakistan/Middle East.

A short time later came the line from Japan to Indonesia.

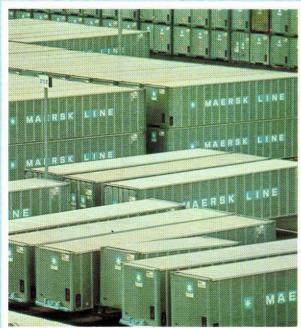
The years 1955-67 saw a service between Ceylon and Iraq (called the tea route).

From 1959 a service is being maintained between the Far East and South and West Africa, until 1976 this line continued to the USA.

From 1968 a service has been operated between Europe and the Arabian/Persian Gulf. Far East.

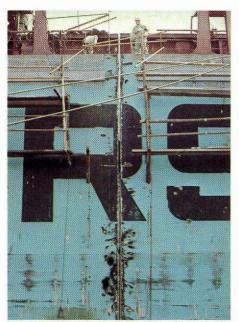
During the years 1947-54, a line was maintained between the US East Coast and France/Belgium/Holland, at first based on deliveries of American railway material for the reconstruction of the French railway system, which had suffered heavily during the war years.

Also, a line was operated, jointly with a Norwegian shipping company, from 1958 to 1961 between the Mexican Gulf and West Africa, the so-called GULWA Line (Gulf West Africa Line).





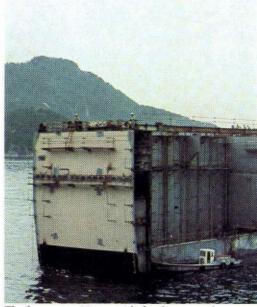




An A ship has been cut through amidships. Photos: P. Søgaard



The stern part of the ship remains in the dock, whereas the forepart is towed out.



The forepart waiting outside for the new mid section to be towed in.

LENGTHENING

The project

During 1977 Maersk Container Line realized that it would be advantageous to increase the container capacity of the A ships by lengthening them. A careful investigation of the price and the consequences regarding speed had to be made first, of course.

Several alternatives were considered, among them lengthenings corresponding to one more section of 40-foot containers, two forty-foot sections, and one 40-foot + one twenty-foot sections. The expenses that would be incurred were evaluated, and the question of speed was answered through a series of model tests. With a view to inviting tenders a set of drawings of design, covering the 40-foot configuration, was ordered from Blohm + Voss of Hamburg, where 6 of the 9 ships were originally built.

Model tests indicated that one forty-foot section would reduce the speed by 0.3 knots, and that two forty-foot sections would mean a reduction of about 0.6 knots. Calculations of strength showed that lengthenings exceeding 40 feet would require considerable longitudinal reinforcements.

Tenders

The next step was to invite tenders from shipyards. Several yards were asked, in the USA as well as in Europe and the Far East. The requirements were that all lengthenings should be finished before the end of 1978, and that each lengthening should be completed within a 3-week period. These requirements could be met by only a few yards.

In the end the Hitachi concern was selected for the task.

Planning

There was a 3-months' spell between the signing of the contract and the arrival in dock of the first ship, and this period was used for a detailed planning of the procedure.

Maersk Container Line worked out a schedule, according to which normal sailings might proceed, the "SVEND-BORG MÆRSK" joining the service. The replacements were arranged so that each ship discharged all its containers in Japan before docking at the yard, whereupon a newly lengthened ship took over the cargo.

The yard planned the actual lengthening procedure and the construction of new sections. Regarding the latter there had to be more than one section ready each time, until the 3 ships built at Flender Werft had been lengthened. The difference in the steel construction of the Blohm + Voss versus the Flender Werft ships called for this special precaution.

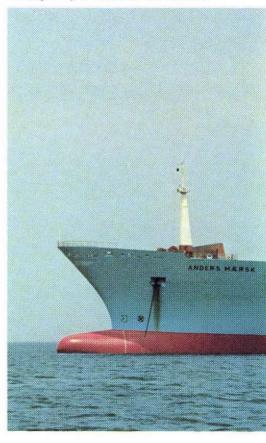
Operations

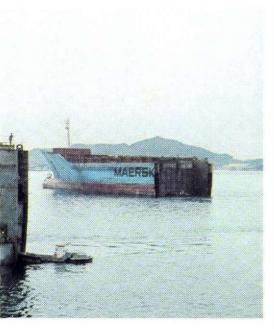
The lengthening procedure makes it necessary that the ships are docked with the stern inwards. The place is now marked where the ship is to be cut through, and the cutting operation is carried out with great care. Next the front part is ballasted, so that it is able to float without being trimmed, and being lighter than the stern part the forepart will be liftet from the keel blocks, whereas the stern part will remain in its position, when water is let into the dock.

Now the forepart is towed out of the dock, and the new mid section is towed in. Finally the forepart follows, a careful levelling is made, and the welding together of the three parts can be undertaken.

The entire operation described above takes less than 24 hours, and it is made with the usual Japanese precision. Be-

The ship ready to resume normal activities.







The welding together of the three parts has been completed, and the ship is now 14.33 metres longer than it used to be.

THE A SHIPS

sides the lengthening itself the yard will also perform the repair and maintenance jobs that normally pertain to a stay in dock, just as the up-dating of design and instruction material and, not least, the drawing up of new certificates are carried out by the yard.

Finally all systems are controlled that have been affected by the lengthening.

For example, all container guides and lock catches are tested to make sure that loading and discharging operations may proceed according to plan.

Result

T.s. "ANDERS MÆRSK" was the first ship to be lengthened, and for this ship regular speed and manoeuvering trials were held as in the case of newbuildings. The trials showed that the ship's performance was very close to what had been predicted during the model tests. Especially the question of speed was looked into during trial runs, both in ballasted and loaded conditions. It was hereby ascertained that the loss of speed was marginally smaller that predicted.

By the end of July a total of three ships have been lengthened with the same good results, and a fixed routine has now been established by the yard as well as by A. P. Møller.

Ole Høg



The North Sea Roughnecks

This was the title of a 50-minute programme on Danish TV on August 17th, dealing with the work on board the drilling rig "Mærsk Explorer". The programme was shaped as a portrait of lead floorhand Jens Schmidt of Ålborg, who was covered partly at his job in the North Sea, partly as a family man in Ålborg.

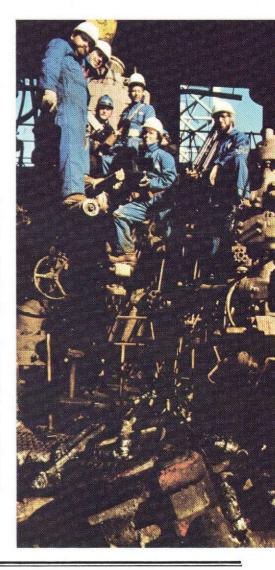
Preparations began as far back as December 1977. Later came research work on the "Mærsk Explorer", where Danish Radio technicians had a close look at the rig to study the sound, light, and film conditions.

Finally, on June 13th, a TV team of five, together with A. P. Møller Information Chief Kurt Bjørndal, went by helicopter to the "Mærsk Explorer" to shoot the various scenes. During the following week films were taken all day long, and every evening about 8 p.m. the team was transferred to the "MARIE MÆRSK", where they were billetted for the week. Their work resulted in more than 100

scenes, from the Explorer, the Danbor base at Esbjerg, from the "MAERSK PIPER", and from the Maersk Air helicopter base at Esbjerg Airport.

Later the team joined Jens Schmidt on a trip by air taxi to his home at Ålborg, and another 4 days' camera work was added, before the comprehensive work of editing could commence at the TV headquarters at Gladsaxe.

The photo shows the TV team together with the main person of the programme, Jens Schmidt. From the left are the producer of the programme, Hans-Georg Møller; the sound technican, Peter Hansen; the film photographer, Henrik Heger, and the film assistant, Jonny Køster. The team have scaled the "Christmas tree" construction of the D platform of the Dan Field, where at the time of shooting the "Mærsk Explorer" was carrying out a series of re-drills.







Oil Show in Rio

The exploration for oil off the coast of Brazil is gathering speed. When in 1968 the state-owned Petrobras Company took a serious interest in the continental shelf, two jack-up rigs were employed for the purpose. Today, after ten years and several findings, more than 30 drilling rigs are busy, and several more are on their way.

Through this kind of activity Brazil has put itself in a central position of the overall Latin American offshore picture. So, it was only natural that Rio de Janeiro should be in the centre of things when the first large-scale exhibition and conference in South America were staged: The Latin American Oil Show.

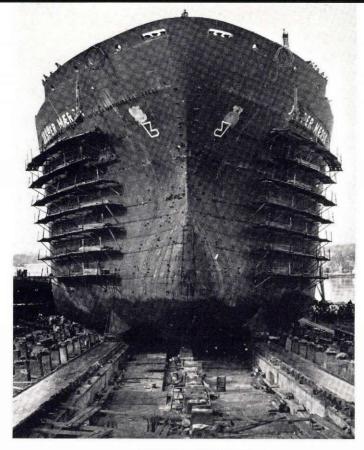
With two drilling units and seven new supplyships and anchor-handling tugs working for Petrobras, it was obvious that Maersk Offshore should participate in this oil show. But even the Yard chose to take part in a joint A. P. Møller stand, where Odense-Lindø had an op-

portunity to present to the world their comprehensive programme regarding the offshore industry.

The show, which lasted from 27 to 30 June, was housed in a completely new, hardly finished, exhibition centre about 50 kilometres south of Rio. During these four days many present and, we hope, prospective customers found their way to the stand. The MÆRSK fleet anchorhandling tugs, especially, were favoured with positive appraisal by Petrobras representatives, who were presented, after the show, with the very fine, detailed model of the anchor-handling tug "MÆRSK BREAKER", seen in the bottom photograph.

The two photographs from the show give a good impression of the Maersk Offshore stand, comprising, besides models and enlarged photostats, a continuous picture show in Portuguese and English.

SA HS



Last product-carrier from Kaldnes

The last ship for A. P. Møller at present on order from a Norwegian yard, has been named. The newbuilding is a 58,900 tdw. product-carrier, and it was named

"JESPER MÆRSK" by Mrs. Emma Mc-Kinney Møller, wife of Shipowner Mærsk Mc-Kinney Møller.

"JESPER MÆRSK" is the fifth and last of a series of ships from the Kaldnes Mekaniske Verksted of Tønsberg. Since 1967, when the first post-war order was

neer Hans Chr. H. Hansen, Thurø, is responsible for the engine room.

The main particulars of the new ship are as follows:

Length p.p.: 233.90m breadth mld.: 32.12m depth mld.: 17.40m draught: 13.09m speed loaded: abt. 16 knots



Naming of A. P. Møller newbuilding at Langelinie

The third newbuilding of the so-called N series of product tankers, built at the Lindø Yard for A. P. Møller, has been taken over.

The naming ceremony was staged at Langelinie on May 31st. Mrs. Martine Dean, wife of US ambassador John Gunther Dean, broke the champagne bottle against a name plate on the funnel, naming the ship "NELLY MÆRSK".

Like her sister ships, »NORA MÆRSK" and "NIELS MÆRSK", the "NELLY MÆRSK" carries refined oil products. This type of ship is constructed to carry four different cargoes simultaneously, distributed in 18 cargo tanks, and the ships are the largest of this kind in the world.

The ship is powered by a 7-cylinder Sulzer diesel engine, type 7RND76M, with a maximum continuous output of 16,800 BHP.

Master of the ship is Capt. Arne Tingberg Sørensen, Esbjerg, and chief engi-



placed at a Norwegian yard by A. P. Møller, a total of 28 ships have been delivered to the MÆRSK fleet from various Norwegian yards.

The new ship has Højer in South Jutland as its home port. By choosing Højer A. P. Møller has wished to manifest particular interest in this area, where the A. P. Møller Foundation has recently contributed strongly towards the restoration of the Højer windmill.

technical data of "JESPER MÆRSK" are as follows:

Length o.a.: 211.18m length p.p.: 201.20m breadth mld.: 32.20m depth mld.: 17.50m draught: 13.20m speed loaded: 16.8 knots engine: Nyland/B&W of 20,500 BHP





MÆRSK ACTIVITIES IN

The construction work on the new A. P. Møller administration building at Søndre Toldbod is progressing according to plan, and during the spring of 1979 the move from Kongens Nytorv is due to take place.

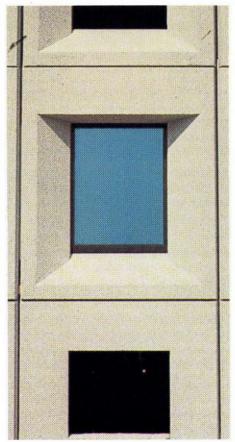
During a visit to the building site on a hot summer's day in June an impressive scenery meets the eye. The first three storeys are partly completed, and the outer concrete walls, together with the rough floors and ceilings, give a pretty good idea of the dimensions of the build-

When standing in one of the new, specially designed schoolrooms at the north-easterly end of the so-called Storey 1, it is possible, thanks to the still not installed inner walls and partitions, to overlook a grand room of some 275 feet in length, the future location of the Information Department, the Staff Department, and the Chartering and Agency Department.

Looking left, a grand view of the harbour area is afforded, with the naval dockyard and the Refshaleøen in the background. Further to the left is the Royal Yacht at its moorings, and through the windows facing the north-east is the entrance to the port of Copenhagen with the Langelinie quay, and beyond that the glittering Sound.

A further maritime element is provided by the many ships, passing in and out of the inner harbour, gliding past just outside the windows. On this particular June day one of the craft is a tourist motor launch, full of gaudily dressed, or 12 sun-scorched semi-undressed, day-trippers, who lazily allow themselves to be

by land...





The view from MÆRSK POST's future office.

transported around to the various highlights underlined in the tourist brochures.

The guide has just been telling them over his loudspeaker about the Little Mermaid, and he is now elaborating on an account of the naval installations on the other side of the narrow water. One cannot help trying to imagine how, during next year's tourist season, he will apply some of his loquaciousness to making a few remarks on the new A. P. Møller office building, which is certainly goind to provide a new and majestic supplement to this time-old Copenhagen waterfront.



COPENHAGEN HARBOUR



...and by sea

Kgs. Nytorv staff visiting "NELLY MÆRSK".



Several hundred members of Kongens Nytorv staff, together with their relatives and friends, accepted the invitation on Sunday, May 28th, to go on board the newest A. P. Møller product-carrier, m.t. "NELLY MÆRSK", alongside the Langelinie quay in Copenhagen.

The Information Department, responsible for guided tours and the serving of refreshments, estimated that well over 1,500 people went on board. The gorgeous weather had attracted Copenhageners in strength, and curiosity regarding this new, big ship meant that the Langelinie quay was swarming with people and motorcars.

The inquisitiveness of the visitors was intense; so was the heat, and reinforcements of cold drinks had to be called in several times.

Many members of our staff have previously had the opportunity to visit the turbine tankers "A. P. MØLLER" and "DIRCH MÆRSK" (in 1966 and 1968, respectively), and deadweight tonnages of 100,000 and 200,000 tons were still remembered. It was a little hard to comprehend, therefore, that this big ship was of "only" 69,000 tdw.

It should be mentioned in this connection that "NELLY MÆRSK", like her two sister ships already delivered, "NO-RA MÆRSK" and "NIELS MÆRSK" represents the largest type of productcarrier in the world. This class of ship does not carry crude oil like the supertankers, but refined products such as jet fuel, gas oil, and naphtha.

Read the report on page 9 on the naming of the ship, which took place on 13 May 31st, also at the Langelinie quay.

Flight Safety Foundation



Maersk Air has become a member of the Flight Safety Foundation – the American, independent, non-profit organization – which counts among its members such companies as SAS, KLM, Alitalia, Air France, and British Airways.

This membership means that Maersk Air will have its operations analysed regularly by technical experts of the Flight Safety Foundation, whose main object is to try to find – on a completely neutral basis – ways and means for further improvement of flight security, and, of course, to point out fields within which an adjustment of Maersk Air's own operational rules might be recommended.

Furthermore, the organization arranges conferences on flight safety for its members, just as members receive various publications on this theme issued by the Flight Safety Foundation.

As it is, Maersk Air's operational rules are subjected to the strict safety regulations of Danish aviation authorities, both regarding operations as such, and also maintenance systems. The membership of the Flight Safety Foundation is on a voluntary basis, and may be interpreted as a wish on our part to have a periodical, objective analysis of all aspects regarding our flight operations.

The Maersk Air Stewardess School 19th course terminated

cluding serving of meals, sales of drinks and duty-free articles – flight tickets, customs forms, service regulations, etc. etc.

In the service field the training aims specifically at a high level of efficiency and promptness, combined with a kind and obliging attitude towards Maersk Air passengers.

With the 19th class of the stewardess school on active service, Maersk Air has altogether 168 stewardesses, composed of

the following categories: Summer extras (60), junior stewardesses (40), senior Stewardesses (30), cabin chiefs (35), supervisors (2), and chief stewardess (1).

Stewardess course No 20 is expected to commence on October 1st, 1978.

The pupils of the 19th stewardess course in front of a Maersk Air Boeing 737-200 Advanced. In the middle the leaders of the course, Maersk Air's chief stewardess and service chief.

At the beginning of April 1978, 35 would-be stewardesses (Danes, Swedes, Norwegians, and Finns) began a 2-months concentrated evening course at the Maersk Air Stewardess School at Dragør. Evening classes – four lessons per day – during eight weeks aimed at sending them up for the final examination, which is required to be employed in Maersk Air – beginning as "summer extras", but standing good chances of prolonged employment.

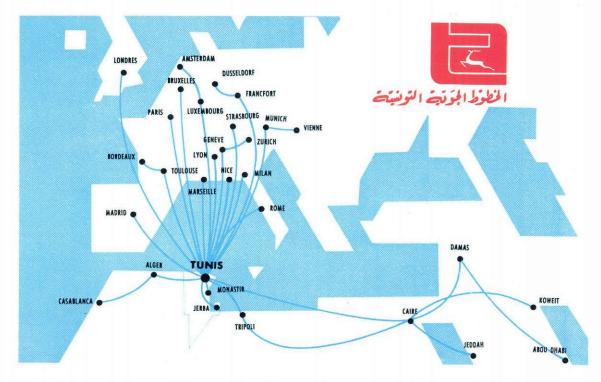
This was the start of course No 19 of our stewardess school, and all pupils who passed the final test were employed as summer extras.

The theoretical part of this course takes place in the classrooms at Dragør and on board aircraft when grounded, and it is followed by the practical part in the way that pupils serve on board as trainees under the supervision of experienced stewardesses.

Theoretical subjects are: Emergency training, first aid, passenger service – in-



Tunis Air's route chart and logo. Maersk Air's Boeing is serving on the routes to Europe from Tunis/Monastir/Jerba.



Maersk Air in Tunisia

Tunis Air, the national airlines of Tunisia, and Maersk Air began to co-operate on 13 May 1978, so far covering the remaining part of 1978.

OY-APG, Maersk Air's first Boeing 737-200 Advanced, with cockpit crews and technical staff, entered into a wetlease contract, by which Maersk Air takes care of several flights every day with Tunis as base, especially covering European destinations. The aircraft has retained its original colours, but as seen in the photograph with an additional remark about the lease. Also, as the aircraft is still registered in Denmark, it is

operated and maintained according to Danish flight regulations.

As Tunis wanted to have their own Arabian-speaking cabin crews, the Maersk Air School Section had to prepare in good time for training and examination of Tunis Air cabin crews, covering all aspects of the Boeing 737, a type not yet incorporated in Tunis Air.

The examination requirements in the subject emergency training, set up by the Danish Directorate of Civil Aviation, are thus the same that apply to Maersk Air's own stewardesses.

The wet-lease contract with Tunis Air

is of a longer duration than any other of this kind so far entered into by Maersk Air.



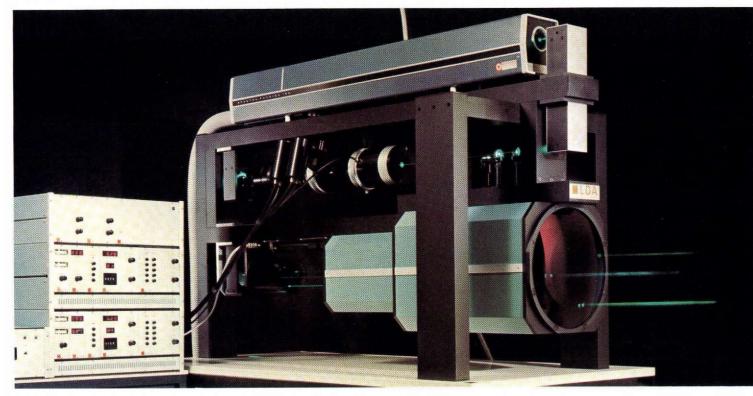
Bjarne Hansen





The Maersk Air Boeing has retained its own colours, but with an additional remark about Tunis Air – just as the motor-car also stationed in Tunisia.

DISA laser anemometer



DISA two-color laser anemometer with zoom optics.

One of the instruments manufactured by DISA ELEKTRONIK is known as an anemometer. Its applications include naval research. Flow measurements are of great importance in research into the hydrodynamics of ships. Usually, the design of a hull is calculated on the basis of mathematical formulae so that the ship will have the requisite stability and seaworthiness and at the same time offer a minimum of flow resistance, so that its propulsion will be facilitated. But calculations are often not enough: It is also necessary to make tests, as a rule model tests, to optimize the shape of the ship.

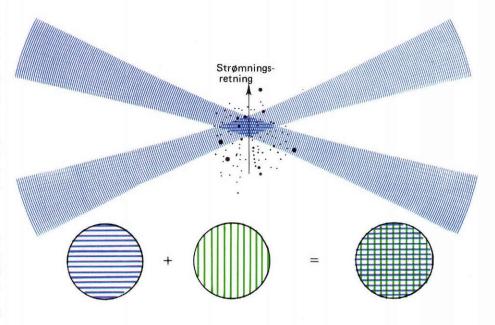
Hot-sensor

DISA ELEKTRONIK has for many years supplied naval research instruments, notably a hot-sensor anemometer for the measurement of flow velocities in water. Not only velocities but also velocity fluctuations are studied in model tests by the aid of DISA anemometer equipment.

Laser

16 Seven years ago, DISA introduced the laser anemometer, which very soon

Principle of laser anemometer.



proved excellently suited for flow measurements in water. Since then, rapid forward strides have been made, both in

regard to better and more powerful lasers and in regard to the design of optics and electronics. Today DISA offers an advanced laser anemometer specially designed for experiments in naval research work. The laser anemometer shown in figure 1 was supplied to a naval research laboratory at Hamburg. This equipment features a two-colour laser delivering a green and a blue beam of very high intensity.

Principle

The principle of laser anemometry measurements is shown in figure 2. The optics of the anemometer splits the laser beam up into two beams, and causes the two beams to intersect at a point known as the point of measurement. On account of the structure of laser light, an interference system forms at the point of measurement. The velocity of the water cannot be measured directly; what is measured is the velocity of particles present in the water. When passing through the point of measurement, the particles are illuminated alternately due to their passage through the interference system.

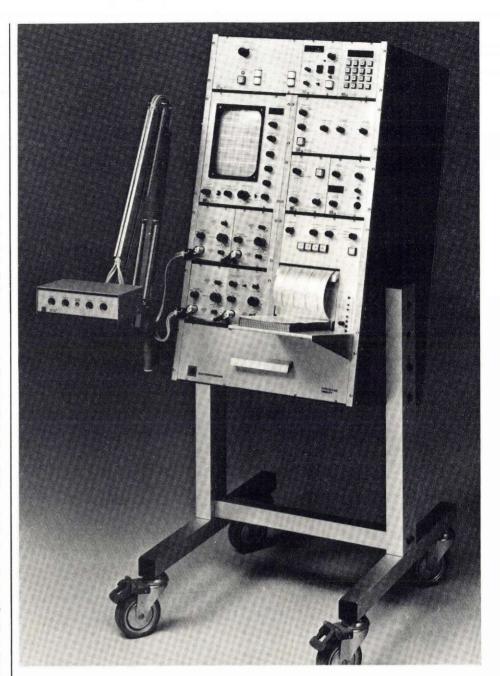
These light pulses are picked up by the laser anemometer and processed electronically. The anemometer provides direct indication, with luminous figures, of particle velocity and hence also of the water's flow velocity. The two intersecting laser beams can only measure the velocity in one direction; measurement in two directions requires two additional laser beams at right angles to the first pair. The two pairs of laser beams are green and blue, respectively.

Zoom Optics

Built-in zoom optics allow the point of measurement to be shifted at right angles to the flow. This is a great advantage in measurement work, as the point of measurement can traverse at a distance from 2 to 6 metres.

Result

The optical section of the DISA laser anemometer is installed in a very large ship's model, and flow measurements around the hull and the propeller are made through a window. Measurements are controlled by a computer which both controls the movement of the point of measurement and processes the results – a procedure that is quite necessary for clarifying the exceedingly complex flow pattern.



DISA 1500 Digital EMG system

DISA ELEKTRONIK has just introduced a new improved Electromyograph.

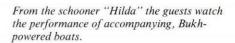
Measuring muscle and nerve functions, the new Electromyograph is composed of a number of modules to satisfy the doctor's special requirements for this type of instrumentation. In addition to the conventional EMG amplifier there is now also a sensory amplifier with ten times higher sensitivity and reduced noise figure. As the name implies, this amplifier is employed for measurement of sensory nerve signals.

The new sensational Disagraph recorder has had more functions added to it; it can now furnish the chart with automatic printout of a number of patient data and perform calculation of nerve conduction velocity.

The Stimulator line now comprises five different modules which can be combined as desired. The Stimulator can furnish all pulses of interest in EMG.



Erik Hansen





News from Bukh

British boatbuilders

At the beginning of June Bukh was visited by 44 British boatbuilders, who were accompanied by a boat/motor journalist of a well-known yacht magazine.

South Western Marine Factors Ltd., Bukh's British importers, had been responsible for contacting the guests, who came from all parts of the United King-

After the arrival at Kastrup the tour began by a visit to the Viking Museum at Roskilde. During this visit a lecture was given, in which the newest theories that the Vikings had been responsible not only for raiding Britain in former days, but also for establishing the trade relations between our two countries, were explained.

The next stop on the tour was Dragsholm Castle, where the old, thick walls provided the setting for the first day's proceedings. The guests saw the various rooms of the castle, among them the dungeon where the Earl of Bothwell had been imprisoned.

The next day was devoted to an inspection of the Bukh factory. After a tour of the production sheds the visit centred around a stand, containing the real purpose of the visit, the Bukh marine engines.

The weather favoured the ensuing cruise on the Kalundborg Fjord. From an old schooner the guests watched the performance of accompanying craft, powered with 10, 20, and 30 HP Bukh marine engines. This cruise formed the opportunity to convince themselves of the very low level of vibration for which the Bukh engines are famed. At the old town hall of Kalundborg the mayor, Mr. Age Breinrod, acted as host, telling his guests about the history

climax of the visit. Going on board the different craft the guests had an excellent

of his town, and about the industrial development, partly brought about by Bukh. In the evening the Bukh people took their guests to the Tivoli in Copenhagen.

The third and last day was spent partly at Frederiksborg Castle at Hillerød, and the way back to Kastrup Airport was via the Øresund coastal road. When taking leave the guests expressed their appreciation of the very good impressions they had got of Denmark and Bukh's red marine engines.



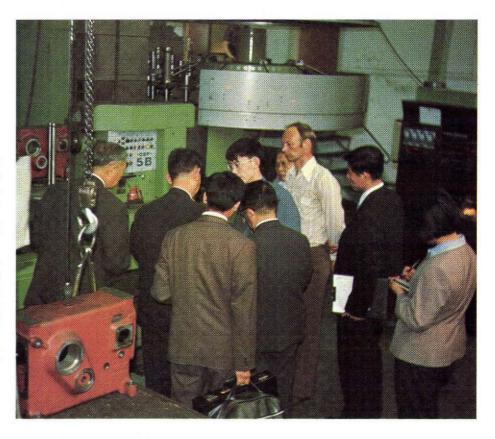
Visit from China

Headed by the Vice-Minister of The First Machine Building Ministry of the People's Republic of China, His Excellency Hsiang Nan, and the Chinese Ambassador, His Excellency Chin Chia-lin, 18 Chinese experts of farming machinery visited Bukh on Wednesday June 7th.

With the assistance of the Danish Foreign Ministry an extensive programme had been worked out for the nine days during which the delegation visited Denmark; and Bukh was one of the first companies honoured with a visit.

Diesel-powered machinery for pumps, crushers and generators for use in farming attracted special attention.

From a tour of the factory.



The tractor ready to leave Denmark at Orehoved harbour. Behind the tractor, wearing sunglasses, is Mr. Boesen, beside him Mr. Niels Hare, and on the tractor Mayor Ole Kragh.



Tough old tractor

Farmer Poul Erik Boesen of Nørre Alslev, Falster, uses two red and two yellow Bukh tractors on his farm, and he is quite extraordinarily Bukh-minded.

He has a friend in England, also a farmer, Mr. John Moffitt, living in the neighbourhood of Newcastle. As Mr. Moffitt has for many years been collecting old tractors – so far he has about 150

- and he has been planning to open a tractor museum.

During a visit by Lolland-Falster youth to Northumberland a couple of years ago, Mr. Moffitt expressed a wish to get hold of an ancient Danish tractor. Boesen took up the challenge, and at a neighbour's, Farmer Niels Hare, he succeeded in finding an old red Bukh tractor, disused because of a wrecked

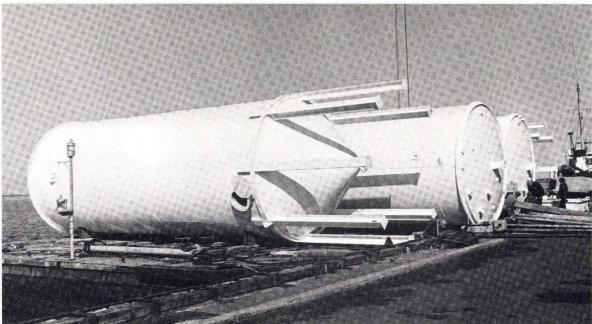
cylinder block. It was one of the really old models, a 2-cylinder DZ 30 from 1957.

At another neighbour's, Farmer Erik Nielsen of Systofte, Boesen found a motor that was intact. The smith at Neble got the tractor going, and in May it was shipped from Orehoved to Newcastle.

Together with a great many other veterans the tractor is today exhibited at Mr. Moffitt's new Westside Museum.



Fully laden barge ready to be towed from Lindo.



News from Odense-Lindø

Tanks for chemicals

Together with the building of ships the Odense Steel Shipyard Ltd. has undertaken various kinds of industrial production. Earlier this year the Yard manufactured and delivered 8 large tanks for Kommunekemi A/S at Nyborg, each measuring 230 cubic metres and weighing 17 tons.

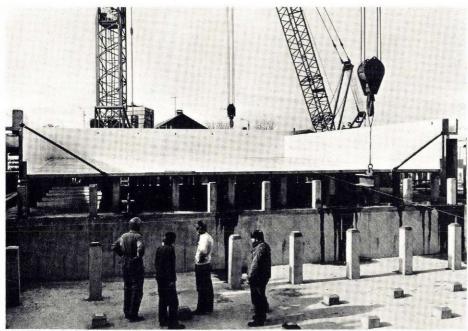
The transportation of the tanks from Lindø to Nyborg had for practical reasons to be by sea, as the 5-metre diameter of the tanks ruled out any chance of a passage overland, because of viaducts and electric wires.

Through close co-operation between the Yard's transport department, the Svitzer towing company, and the BMS contractors, the tanks reached Nyborg at the agreed time, almost to the minute, having been towed on a barge practically "from door to door". The schedule also included the erection of the tanks on the site.

One photo shows a full barge-load ready to leave Lindø, the other the discharge at the Kommunekemi quay.







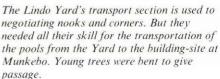
New Swimmingbaths at Munkebo

The new swimming-baths at Munkebo are now nearing completion; on May 12th the topping-out ceremony was staged, and the opening will take place on October 1st.

The construction work has largely been carried out by volunteers, who have been given access to the Lindø Yard, for instance to the painting-sheds, to enable them to carry out the work. The majority of the building-costs have

been covered by the Munkebo municipality and the A. P. Møller Foundation.

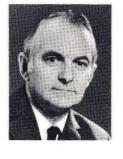
The Yard has constructed the two pools, a large one of 25 by 12.5 metres (international size for competition) and a training pool of 12.5 by 6 metres. As far as we know this is the first example in Europe of steel pools of such dimensions having been installed in swimmingbaths. The advantage of using steel is that there will be no leakages, as compared with concrete or tiled pools.



The two steel pools were placed on concrete supports in the excavation.

The topping-out ceremony on May 12th. On the left Mr. Svend Erik Klint Jensen, chairman of the swimbaths' committee, together with Mr. Erik Quistgaard, Yard managing director.





21

Danish road-delineators on Danish roads

Any one using our roads and motorways will have noticed the white delineators with reflectors – some may even have "studied them at very close quarters", even if they have not been close enough to see that Rosti has made them, or at any rate most of them.

The story of the Rosti delineator began well over four years ago, when Rosti decided that there ought to be Danish delineators along Danish roads. From Superfoss the appropriate production tools were hired, and samples were made; but the scheme never really came off.

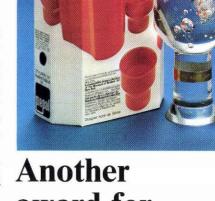
Rosti did not shelve the plans however, but set about creating new and better production machinery. In August 1974 an attempt was made, by submitting a tender in conjunction with Messrs. Gade Ebbesen of Odense and Colour Reflex Ltd. of Næstved, makers of road signs, to secure an order for 100,000 delineators, to be put up by the Directorate of Highways. Unfortunately, the tender was not considered.

However, Rosti had faith in its delineator, and the development of it went on undauntedly. At the beginning of 1975 production was well ahead, and an agreement was made with Gade Ebbesen and Colour Reflex covering the sale of 40,000 delineators to local country and municipal authorities. By 1976 the sales figure had risen to 85,000.

In October 1977 Rosti was successful when submitting a new tender to the Directorate of Highways, and a delivery of 25,000 delineators for state roads was secured. In 1978 the order was increased to 35,000, meaning that $80^{\circ}/_{\circ}$ of all delineators sold today are made by Rosti.

It can be assumed that this success would create in Rosti a desire to see Danish delineators also along roads abroad. And, actually, a number of samples have been put up along roads in Venezuela, Norway, Sweden, and Switzerland. The overall problem about exports, however, is that standard specifications of the road authorities in the different countries vary a great deal, in many cases necessitating great production changes.

A possible export of delineators will, therefore, be concentrated on countries not yet familiar with the delineator, where no standards have yet been fixed.



Another award for Mepalservice

Mr. Koen de Winter, chief of design and product development at the Rosti subsidiary company, Mepalservice B. V. of Lochem, Holland, has once again asserted himself in the world of design.

As mentioned in MÆRSK POST of November 1977, Mr. Koen de Winter had been honoured by having his 2-litre jug incorporated in the design collection of the Museum of Modern Art.

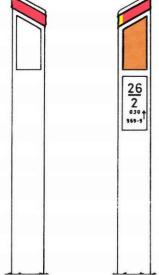
This time he has been awarded a prize, the so-called "Golden Nut", for designing the special packing-case for the said jug. The name of the prize symbolizes a natural, efficiently protecting outer casing, and the prize is awarded by the Dutch Centre of Packaging, a research centre sponsored by the Dutch packaging industry, for the promotion and development of packing materials.

The jury was composed of producers of packings, consumers, distribution people, designers, and members of the Dutch Technological Institute. The requirements asked were an economical utilization of the material, clear and exact consumer information, and efficient protection of the contents.

Mr. Koen de Winter designed his case especially for promotion in the Canadian and American markets.

The prize was handed to Mr. Koen de Winter at the National Exhibition Centre of Utrecht, Holland, on May 16th.







Shipment of tugboat from **Hong Kong** to Rotterdam

The two photographs on this page depict the Royal Navy tugboat "Dorothy", being loaded on board m.s. "CLARA MÆRSK" in Hong Kong for transportation by the Europe/Far East Line to Rotterdam.

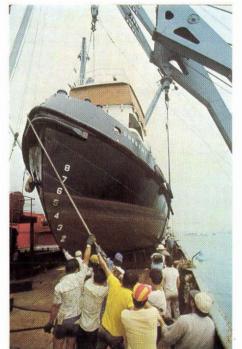
This is the second occasion on which "CLARA MÆRSK" has been in contact with the British Navy. I am referring to the first time, the dramatic sea rescue a little over three years ago, when "CLA-RA MÆRSK" responded to an SOS call in the South China Sea, and saved the lives of 3,628 Vietnamese.

"CLARA MÆRSK" resumed her course towards Hong Kong, "overladen" with human cargo; and whatever provisions existed on board disappeared in record time.

From Hong Kong the Royal Navy promptly dispatched their frigate H.M.S. 'Chichester", which steamed at full speed, carrying food and medical supplies, to establish contact with "CLARA MÆRSK"

The arrival of the shipwrecked Vietnamese in Hong Kong coincided with a visit to the colony of H.M. Queen Elizabeth and H.R.H. The Duke of Edin-





burgh. On hearing of the rescue, Prince Philip verbally complimented Maersk Line, and added that the operation must have been "a bit of a headache". This typical British understatement in no way detracted from the sterling efforts made, or the personal sacrifices of those rendering assistance.

Needless to say this new, second contact between the Royal Navy and "CLA-RA MÆRSK", regarding a Navy tugboat loaded on the deck of the MÆRSK ship, took place under more relaxed and pleasant circumstances.





New local correspondent

MÆRSK POST will in future be represented at Singapore by Mr. David Tan.

We should like to extend a hearty welcome to Mr. Tan, and at the same time express our best thanks to Mr. Bobby Lim, who has been responsible for well over a year for connections between the Singapore office and MÆRSK POST.

PHOTO COMPETITION

The editor takes this opportunity to call the attention of our readers to the MÆRSK POST annual photo contest, the judging of which will take place with the edition of number 4, 1978, which will appear at the beginning of November.

Submissions for this competition should reach the editor by October 15th, and you may send in colour photos, either in the shape of diapositives/transparencies or colour negatives. In the latter case you should submit negatives as well as paper prints. Black-and-white photos cannot compete.

Members of A. P. Møller staff everywhere can participate, and the choice of subjects is yours.

You are free to submit more than one photo; but, considering the great number of entries usually made each competitor is allowed to hand in 5 photographs at the most. In this connection it should be pointed out that if you send us transparencies mounted in glass frames, you should pack these with great care. On several occasions the editor has received parcels filled with broken glass. Do not forget to state your name and address, as all photos will be returned to senders when the November issue has been published.

Three prizes are awarded, a first prize of 300 kroner, a second prize of 200 23 kroner, and a third prize of 100 kroner.

MAERSK MANGO breaks a record

The containers, carried by the A ships from the USA to the Far East, are shifted at main ports to so-called feederships, responsible for the final distribution e.g. from Singapore to Indonesia.



On Sunday February 19th, 1978, the feedership "MAERSK MANGO" arrived at Tanjung Priok, the port of Jakarta, carrying for Indonesia a total of 184 containers, consisting of 127 forty-foot units and 57 twenty-foot units. The ship came alongside at Berth 116.

As can be seen in the photograph the containers were stacked 3 high on deck. It was a record for Maersk Line, and it was the first time that Tanjung Priok

Maersk containers being handled on quay 116.
The feedership is the "MAERSK MONDO".

was visited by a ship carrying over 150 containers.

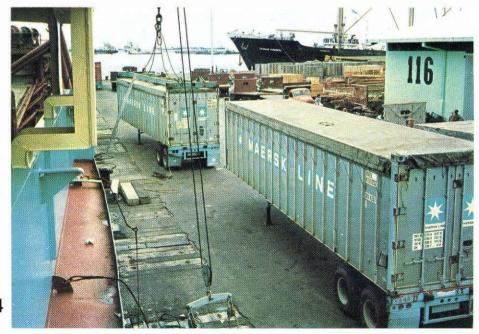
Tanjung Priok and containerization

The port of Tanjung Priok, Jakarta, has been developing rapidly during the past five years. With the advent of the container age the extension of the port facilities was made with a view to accommodating containerships, and providing the special facilities required.

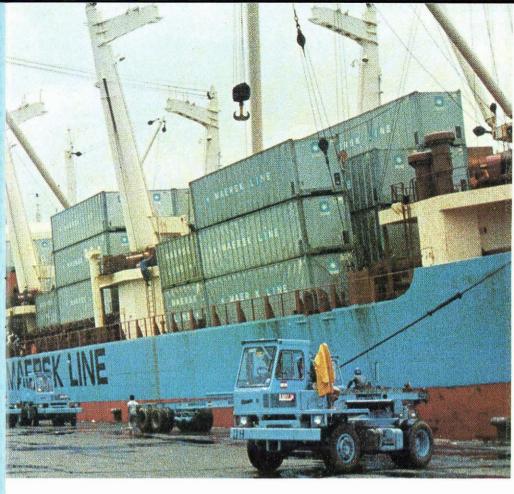
Faced with the fact that about 1,000 containers were coming in and going out of the harbour every month, and that this number would increase rapidly, the Directorate General of Sea Communication and the Tg. Priok Port Administra-

tor started preparations some years ago to provide the necessary facilities, and in September 1974 the construction of a quay for container vessels was begun. It is anticipated that this big project, which comprises wharves, a container open storage area, godowns, two 40-ton gantry cranes, and other container-handling equipment (such as mobile cranes, terminal chassis, head trucks, forklift trucks, etc.) will all be ready by 1979. The great scheme has been financed partly by a World Bank loan, and the main contract was made with National Indonesian contractors.

Awaiting the completion of the new container installations, the construction







The feedership "MAERSK MANGO", carrying the greatest number of containers so far to enter Tanjung Priok, coming alongside Berth 116. Maersk mobile container-handling equipment is ready for action on the quay.

of a new quay in the eastern part of Port I (Pelabuhan I) was commenced in 1974, and completed in early 1977. Maersk vessels usually berth here, at Berth 116.

100 years anniversary

At the northern tip of Berth 116 there is a monument, made of a large granite stone, weighing about one ton. It was erected in connection with the celebration of the centennial (1877-1977) of Tanjung Priok Harbour on June 17th, 1977. The ceremony was held here on this spot, exactly in the place where the harbour development was started in 1877.

There is an inscription on the stone, and the Indonesian text may be translated like this:

IN CONNECTION WITH THE 100TH ANNIVERSARY OF THE PORT OF TANJUNG PRIOK, IN THIS PLACE TODAY, JUNE 17, 1977, A MEMORIAL IS PLACED FOR THE COMING GENERATIONS OF THE NEXT 100 YEARS

A memorial bronze plate, placed in a

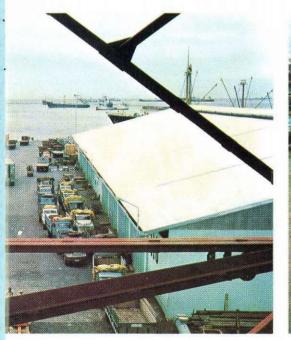
The memorial stone at the northern tip of

metal box, was buried under this big stone.

Since that day the monument has been nicknamed "SI DENOK BANDAR-WATI", which means "Little mermaid of the harbour".

Erwin Saropie







PERSONALIA

KONGENS NYTORV

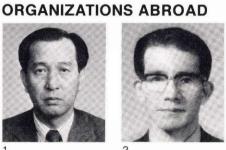




















25 Years Anniversary

- 1. Svend Aa. Vilborg August 1st
- 2. Knud Rasmussen October 1st
- 3. Svend Thrane November 2nd
- 4. Øjvind B. Eghorn November 15th

Retiring

- 1. Chief Engineer H. K. Holmelin
- 2. Chief Steward Ernst Petersen
- 3. Captain Witho M. Simon August 31st
- 4. Captain Martin E. Andreasen

- May 31st
- July 31st
- September 30th

ROULUND





Retiring

- 5. Gunnar Helander Jensen July 31st
- 6. Mabel H. Bentzen November 30th



40 Years Anniversary

1. Knud Frederiksen August 12th



25 Years Anniversary

2. Verner Jensen September 21st

25 Years Anniversary

- 1. M. Yashima, Yokohama July 15th
- 2. M. Hayakawa, Kobe September 17th
- 3. H. Koizumi, Yokohama October 21st
- 4. Jack D. Griffin, London December 1st



Retiring

5. John P. Stevely, New York October 31st

BUKH



25 Years Anniversary 1. E. O. Radisch October 1st

ODENSE-LINDØ







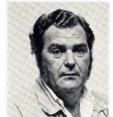




40 Years Anniversary

- 1. Otto T. Binneballe (O) August 16th
- 2. Poul Arthur Knudsen (L) August 18th
- 3. Ansger Hubert Petersen August 25th
- 4. Poul Erik Nielsen (L) October 7th









25 Years Anniversary

- 5. Bendt Alfred Bech (L) August 25th
- 6. Gudmund S. Sloth September 3rd
- 7. Leo Børge Pedersen (L) September 14th
- 8. Erik Ekdahl Svendsen (L) September 29th
- 9. Karl Alfred Larsen (L) October 27th

- 10. Svend Aage Jacobsen (L) November 3rd
- 11. Nymann Schwartz Pedersen (L) November 3rd



Retiring 12. H. P. E. Sørensen (L) October 31st

DISA



40 Years Anniversary 1. Adolf K. D. Holgersen (Herlev) October 20th









25 Years Anniversary

- 2. Ib Finn Rasmussen (Herlev) September 30th
- 3. Lizzie Linder Sonne (Skovlunde) October 12th
- 4. Ejvind Nielsen (Skovlunde) October 30th
- 5. K. A. L. Christensen (Skovlunde) November 10th

Obituary

The A. P. Møller Companies regret to announce the following deaths during the past four months:

Kristian Marius Pedersen Roulund

April 1st

Ole Jørgensen Lindø

April 4th

Carl Kristian Ubjerg

Roulund

April 28th

Hans Jørgen Winter

Lindø

May 15th

Villy F. Chr. Jensen

Roulund

May 25th

Kai Gottlieb Larsen

Odense

May 26th

Casper Troels-Smith

Maersk Drilling

May 26th

James McDougal

Kongens Nytorv

June 2nd

Erik Albert Jensen

Lindø

June 7th

Manfred Hansen

Roulund

June 16th

Villy Knoth

Lindø

June 30th

Britta Andersen

Lindø

July 4th

Asger Jensen

Linda

July 13th

Able Seaman

Ove Verner Johansen

ex m.s. "TREIN MÆRSK" July 23rd

Able Seaman

Klaus S. A. Levi Poulsen

ex m.t. "GUDRUN MÆRSK"

July 25th

Donkeyman

Robert B. Haslund Poulsen ex m.t. "HENNING MÆRSK"

July 27th

Knud H. Sørensen

Lindø

July 31st

Niels Helge Nielsen

Bukh

August 7th

