

KARSTENSEN'S SHIPYARD A/S



100 years of shipbuilding and repair  
1917-2017

## 100 years of shipbuilding and repair

ALONG THE QUAY stand the pelagic fishing boats *Aine*, *Rockall* and *Voyager*, which are due for delivery to their owners this year, the centenary year of the shipyard. *Pathway* and *Grateful* already left and were sailed in May and July to their respective home ports of Peterhead and Fraserburgh in Scotland.

The order book shows the same level of activity for the coming two years. There are currently 16 ships in the order book representing a total value of DKK 2.4 billion.

Without falling into routines, Karstensen's Shipyard has established tremendous competencies in the development and newbuilding of large pelagic fishing vessels. The pelagic fishing vessels fish for shoals of fish using seine nets or trawls. The catch is stored in the RSW tanks with refrigerated sea water. In most cases, the shipyard is responsible for designing the ships in collaboration with the shipowners. In this way, optimum solutions for functionality, capacity, qual-

ity and design may be achieved. The keywords for all newbuildings have always been experience, expertise, quality and flexibility. The quality of completed works must be exceptional so that the ship is fully functional at all times. Everything is done in a positive and inspirational collaboration between the shipowners and the shipyard.

The pelagic ships fish vessels for the fishmeal industry and the pelagic factories. They mainly fish for herring and mackerel. Another major source of income is derived from fishing for trash fish such as blue whiting, sand eels and sprat, which are used in the manufacturing of fishmeal and oil. Trash fish or protein fish, as they are also called, are often supplied to FF Skagen and some of the herring to Skagerak Pelagic in Skagen. Consequently, the harbour, the shipyard and the fish processing industries are closely connected with the vessels, which greatly benefits Skagen as a town.



## Western Viking

THE BREAKTHROUGH IN DESIGN and construction of large pelagic vessels came in 1997 with the delivery of newbuilding no. 374 SO 718 *Western Viking*.

The ship was ordered by Frank Doherty from Kincasslagh, Donegal in Ireland. Later, the shipyard delivered 3 further newbuildings to the same owner: *Western Chieftain* in 2003, *Western Vi-*

*king* in 2005 and *Western Viking* in 2015, and the shipyard is currently building the hull for a new *Western Chieftain*. Similarly, Frank's brother Joseph took delivery of *Aine* from the yard in September in 2017, which replaces the *Aine* that was delivered by the shipyard in 2003. Karstensen's Shipyard's large, loyal clientele returns time and again.

They appreciate the informal tone and close contact with all the employees of the shipyard. There is a no-frills approach and ongoing dialogue to address the adjustments that may arise during the construction of a fishing vessel for a couple of hundred million Danish kroner.

The explosive development of the shipbuilding sector over the past decade is rooted in the positive state of the fisheries market, which has called for a renewal of the fishing fleet and expressed a desire for even greater capacity for the individual ships. Over the years, the management of the shipyard has established an extensive network of contacts in the fisheries sector, which is essential for continuously attaining new orders and, naturally, the flag is flown at fishery trade fairs both at home and abroad.

Discussions between the shipyard and the shipowners have centred around the minimisa-

tion of energy consumption, the optimisation of safety and the working environment aboard as well as the handling of the fish after they are caught and the offloading of them to the factory. The shipyard is always ready to engage in dialogue that will achieve the best solution for the captain and the shipowner.



## Repairs

NEWBUILDINGS ATTRACT the most attention, but shipyard's repairs department is also well represented in the accounts.

Denmark has a coastline of 7,314 km and 1,500 vessels sail every day in the Danish waters annually. That affords good opportunities for a repair shipyard.

Over the years various extensions have been performed at the shipyard. This has also been the case in this centenary year, in which the Thyborøn cutter *Aaltje Postma*, *Patrick* from Skagen, the Nexø cutter *Ocean Freja* and the Læsø cutter

*Canopus* all had their capacity increased by inserting a new section in the hull. The extensions can normally be carried out in 12 to 14 weeks, whereas a newbuilding would take around 18 months to complete.

The repair department has between 125 to 150 projects annually, which range from major renovations to minor maintenance tasks. The types of ships include both tugboats and cargo ships. However, the majority are naturally various fishing vessels. Among the more specular projects executed by the repair department is the conver-



sion of the *M/S Alondra* from a container ship into a cattle transport vessel.

Upon completion of its conversion in July 2017, *Alondra* sailed from Skagen to Waterford in Ireland to be loaded with breeding cattle bound for Bandirma in Turkey.

There has always been a broad synergy between the repair department and shipbuilding division. Part of the newbuilding contracts are the result of a longer relationship, which began when the owners came to the shipyard as maintenance customers and have since returned as newbuilding customers.







Photo credits: Peter Broen, Nordjyske Stiftstidende

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## Employees

THE WORK at Karstensen's Shipyard A/S is carried out by approximately 375 dedicated employees and a large part of the shipyard's success must be attributed to this staff, who have dutifully followed the company for many years and actively helped to develop the shipyard.

The vast majority of the shipyard's employees live in the town, however, as the company has grown, many are now commuting to work from all over North Jutland. Qualified labour does not hang on trees and over the last 10 years the shipyard has supplemented its workforce with skilled colleagues from Germany, Poland and the Baltic States. Some of the employees have adapted so well to the shipyard and the town that they have chosen to settle here with their families.

With a complement of 40 apprentices, the shipyard hopes to be able to educate and retain a stream of qualified workers for many years to come. These mostly include shipbuilders, fitters and electricians. However, the shipyard also

trains technical designers, carpenters, industrial technicians and surface treatment operatives. Moreover, the shipyard often has a number of naval architects and mechanical engineers on internships.

In addition to the permanent staff, the shipyard has also had a close cooperation with a number of subcontractors.

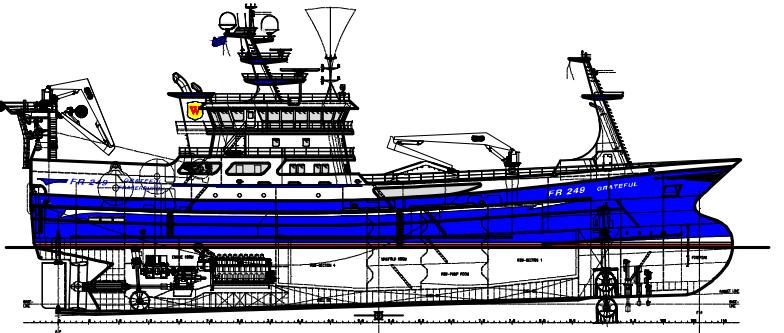
The company Norisol has for many years been responsible for insulation work, and the Norwegian company Maritime Montering has mainly outfitted accommodation quarters.

Topcoat provides surface treatment services.

For many years, the shipyard has availed of Hanstholm Elektronik and Scanel as subcontractors for electrical installations on board the ships.

In July 2016, a new company KS Elektro A/S comprising initially of 40 employees was established, which will be responsible for electrical works on newbuilding and conversion projects at the shipyard in the future.





## Drawing office

AFTER SOME YEARS of buying consulting services, the shipyard established its own drawing office in 1983. In the beginning, there was only one employee and the company continued to avail of the services of external consultants and drawing offices. The construction of a modern fishing vessel today requires a wealth of drawings, calcula-

tions and specifications. Consequently, the size of the department has now grown to nine employees. At the same time, Karstensen's Shipyard has established its own drawing office in Poland with a staff of five and avails of a consulting company in Lithuania to assist with production drawings.

## Royal Danish Navy

KARSTENSEN'S SHIPYARD is never afraid to enter into contracts in new areas. In 2008 it launched two patrol vessels for the Navy, namely *Knud Rasmussen* and her sister ship *Ejnar Mikkelsen*. In 2013 the option to build the third inspection vessel was agreed and the contract to build *Lauge Koch* was signed. The hulls for all three

ships were built in Poland and then towed to Skagen, where Karstensen's Shipyard fitted out the ships. Afterwards, all the military equipment was fitted at Naval Station Korsør. The three patrol vessels are deployed for sovereignty enforcement, inspection and fisheries surveys in Greenland and the Faroe Islands.





## Nuuk Shipyard

KARSTENSEN'S SHIPYARD also has interests in Greenland. Together with the Greenland Home Rule Government the shipyard acquired shares in a newly created company Nuuk Shipyard A/S in 2002 and took over its management. A few years later, the home rule government's shares were acquired, so that it is now a wholly-owned subsidiary of Karstensen's Shipyard.

Nuuk Shipyard exclusively takes in repair work, but it also has significant stock sales to maritime Greenland. Today, Nuuk Shipyard has a permanent staff of around 15 employees, who are supplemented with workers from other shipyards, such as Skagen, during busy periods.



## Steel suppliers from the Baltic countries

STEEL HULLS FOR NEWBUILDINGS have over the past 18 years been built in shipyards in Latvia, Lithuania and Poland, where hundreds of shipyard workers are employed on behalf of Karstensen's Shipyard. Here shipyard inspectors are employed to oversee and control the work of building the hull.

When the hull is painted and launched, it is

then towed to Skagen, where Karstensen's Shipyard provides the fitting of pipework, insulation, accommodation, electrical works, electronics, machinery, capstans and cranes as well as final painting. Newbuildings usually take up to six months in the planning and drawing phase, between eight to ten months to construct the hull and a further six months to fit out the ship.

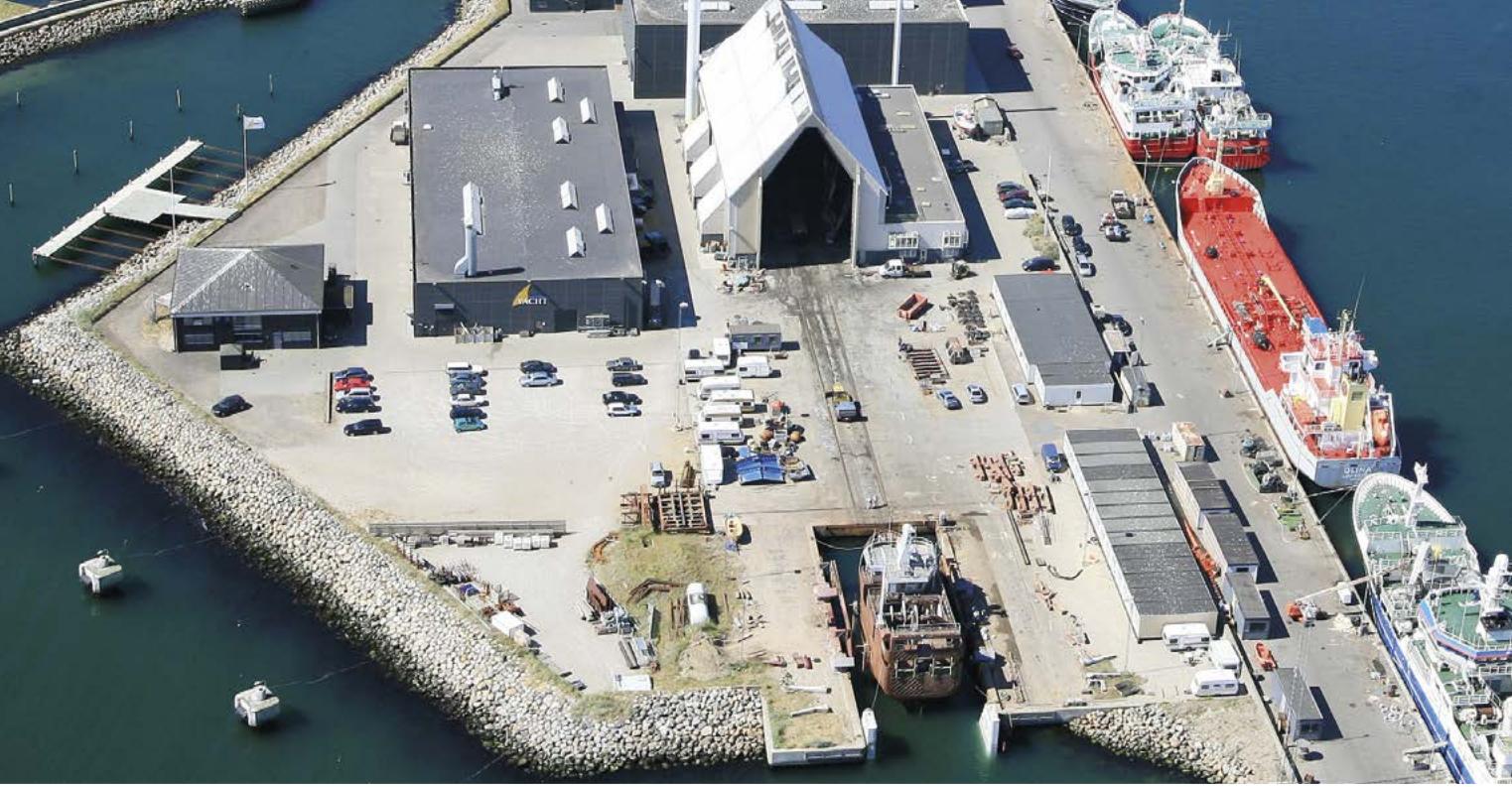


## The shipyard and the harbour

OVER THE YEARS, Karstensen's Shipyard has spread its activities over large sways of Vesthavn. The company has expanded and rebuilt so much that there are now more than 20 buildings in the shipyard area. Administration and the drawing office are located on Vestre Strandvej in close proximity to the slipway area.

Warehouses and pipe workshops are located by the dry dock, which was established in 2007, and there are further storage and goods reception facilities sited in the former fishery buildings P. Anthonisen and Nordsøen.

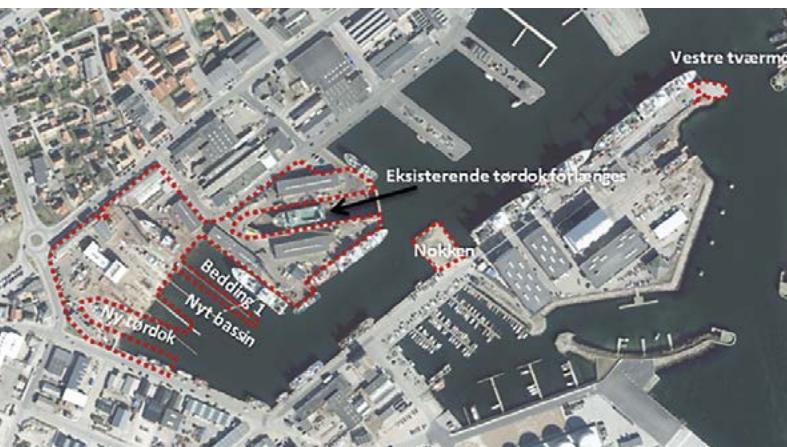
Significantly more square metres were added at Vestre Tværmole. First, when the sandblasting and painting hall better known as 'the Cathedral' was acquired from Nordpaint in 1995 and later when Danish Yachts A/S and their production hall facilities were taken over in 2015. The entire newbuildings department was moved to Vestre Tværmole in 2016 with the expectation that the future regarding production facilities was assured. Already now, every square meter on the pier is utilized.



## New dry dock

THE SHIPYARDS RAPID EXPANSION is also the reason why the plans for the establishment of a new dry dock at the bottom of the Vestre Basin are at such an advanced stage. The establishment of the new dock implies that only one of the slipways will remain and that a new quay will be constructed. The dry dock will be 110 metres long and 25 metres wide. The dock should be covered, as the old dry dock was actually supposed to have been. The cover, which will be 35 metres high, affords considerable environmental benefits by minimising noise pollution and creating the best possible production conditions for employees and customers.

The existing dry dock is being extended by 15 metres to allow for vessels of up to 150 metres in length. The harbour basin is to be deepened and the Nokken at Vestre Tværmole preferably will be removed to ease the passage of large vessels when docking.



## The owners

FOR THE FIRST SEVENTY YEARS of the shipyard's existence it has been known as a privately-owned family business. When the third generation in the form of naval architect Knud Degn Karstensen bought the shipyard from his father Niels Degn Karstensen, it became a private limited company.

The next step towards a generational change occurred in 2003, when five of the shipyard's senior executives acquired 35% of the shares. Consequently, Karstensen's Shipyard is today owned by naval architects Knud Degn Karstensen, Tage Rishøj and Kent Damgaard along with production managers Benny Haugaard Kristensen and Claus Hansen, as well as financial manager Kim Lund Jensen.

The fourth generation of the Karstensen family has also now joined the company in the person of Diddan Rahn Karstensen, who is executive secretary to the board of directors, which comprises Knud Degn Karstensen, Tage Rishøj and Kent Damgaard.

Karstensen's Shipyard currently has an annual turnover of over one billion Danish kroner and there is nothing to suggest that this figure will decrease in the coming years.



## History

NATURALLY, THE SIZE OF SUMS WERE a little bit different when the shipyard started up in 1917. Back then, the initial cash balance was a mere DKK 500 and the total earnings for the first three weeks was DKK 131.05 with expenses amounting to DKK 563.10.

The construction of Skagen harbour at the start of the previous century created the basis for establishing proper shipyards. Already in 1906, the brothers Sofus and Søren Nipper, who were trained at Bull's Shipyard in Frederikshavn, came to Skagen and started building cutters.

At that time, Rasmus Gaihede and Chr. Ovesen had long been engaged in boat building on a smaller scale. However, it was Ovesen who actually started building cutters and in October 1916, the 25-tonne large cutter Magda was launched from the slipway in his shipyard.

## Cousins

TWO COUSINS OF THE SAME AGE Marinus Karstensen and Søren Henriksen were from early childhood used to going about Skagen harbour. They served apprenticeships in shipbuilding under Chr. Ovesen and Ramus Gaihede respectively and they both understood early on that the harbour would yield a flourishing shipbuilding industry.

In the Autumn of 1916, the two cousins announced that they would build a new shipyard immediately west of Chr. Ovesen's. Ovesen laid the keel for a new cutter in February 1917, but shortly after, the 1st of April to be exact, he sold his yard to Marinus Karstensen and Søren Henriksen. The shipyard 'Karstensen and Henriksen' was established.

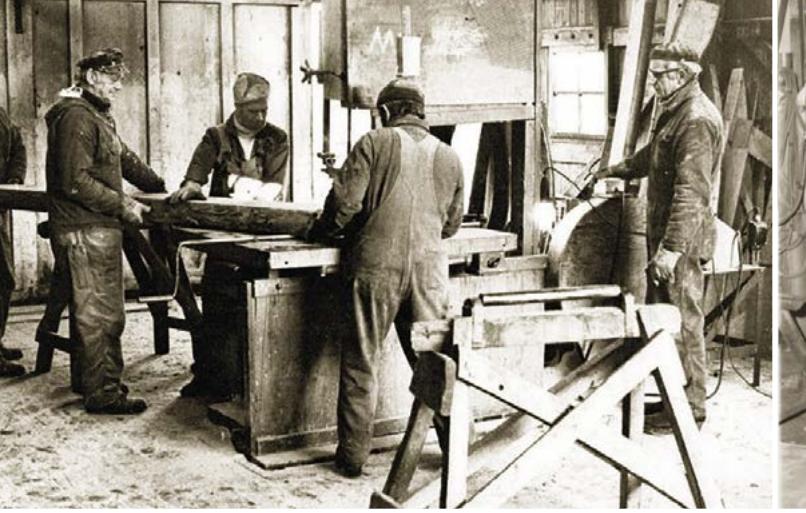
The cousins pressed on determinedly. In parallel with the shipyard of the Nipper brothers, the cousin were building fishing cutters on a grand scale with very little time between launches. The vessels were primarily designed for domestic fisheries, however, many of them were also de-



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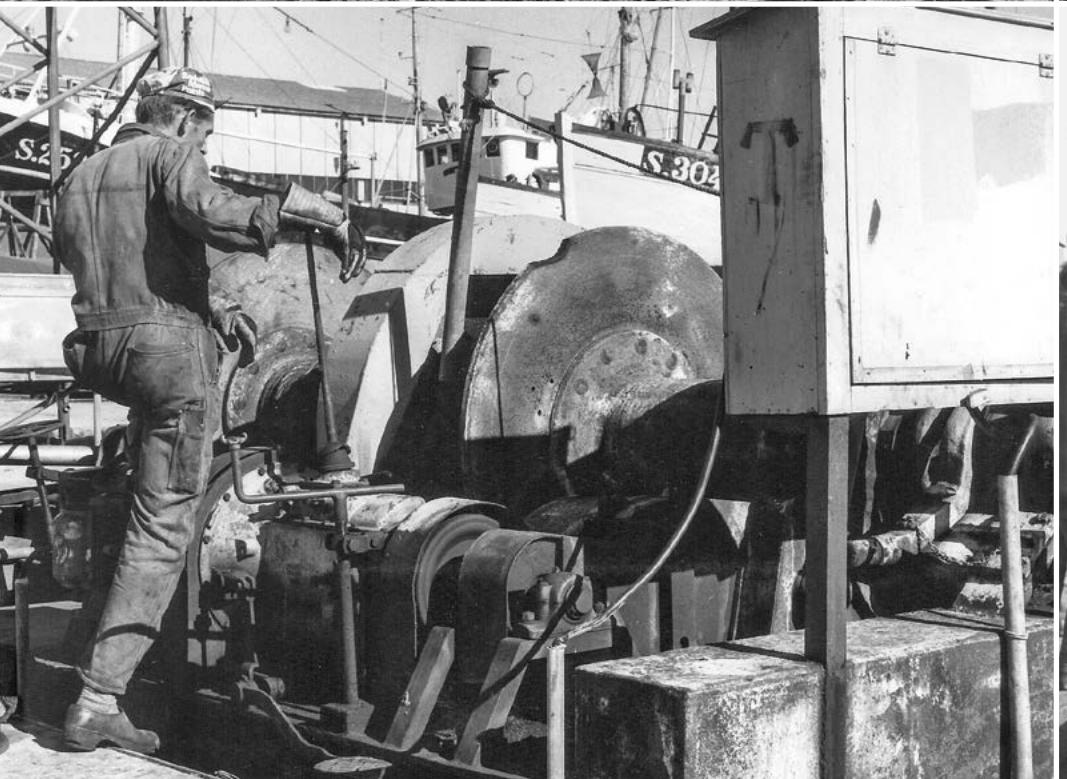
ployed in English fisheries sector, which really took off in the 1920's.

Tragically, a mine explosion that hit the cutter *Nordcap* in 1942 and in which the ship's carpenter Svend Karstensen perished, lead to his brother Niels Degn Karstensen becoming involved in the shipbuilding work. He served an apprenticeship and was later educated as a naval architect.

With him at the helm, the shipyard developed rapidly and when Skagen harbour was expanded to the west in the 1950's, he was ready to move the shipyard there. The slipway capacity was expanded and a saw mill and cutting department was built on Buttervej.

Søren Henriksen took advantage of the opportunity to step down and sold his share of the company to Niels Degn Karstensen. Although Manus Karstensen's health declined, he still partici-

*The naval architect and shipyard owner Niels Degn Karstensen (1922-2000) was originally a fisherman, but later trained as a ship carpenter and naval architect. He saw huge potential for the shipyard upon expansion of the harbour in the 1950's and moreover ran a large-scale shipping business himself. At the harbour, he was known as an enterprising and charismatic figure, while at home he had the steadfast support of his wife Marie (1927-1987).*



pated in the day to day running of the shipyard. When he died in 1959, Niels Degen Karstensen became the sole owner and the shipyard changed its name to 'Karstensens Skibsværft og Maskinværksted'.

In 1971, the Danish Maritime Safety Administration should commission the construction of a new patrol vessel. Both Nipper's Shipyard and Karstensen's Shipyard submitted bids for the con-

tract, which went to Karstensen's. However, the contract stipulated that the ship should be built indoors, which only Nipper's Shipyard could honour. The issue was resolved quite simply when Karstensen's Shipyard purchased Brdr. Nipper's Shipyard on the 15th September 1972 and the two competing shipyards were merged.

### Third generation

IT WAS ALWAYS ON THE CARDS that Niels Degen Karstensen's son Knud would follow in his father's footsteps.

He was sent to Hakvoort Shipyard in the idyllic Monnickendam north of Amsterdam, where he served an apprenticeship as a shipbuilder from 1968 to 1970. In 1974, he took his naval architect exams at Helsingør Technical College.

Meanwhile, steel ships began to come on the scene due to favourable depreciation rules that had fuelled a regular construction boom. The first steel hulls came from Holland. Later steel hull suppliers appeared in Aalborg and Nakskov. However, Karstensen's Shipyard was still building wooden vessels, but the time between new-buildings was getting longer. In the early 1980's, *Atlantica* was built for the Swedish Cruising As-



sociation's Sailing School and FN 129 *Karen Tvil*ling was specially built for a Strandby fisherman. During the 1980's, there were several production changes and the slipway capacity was expanded twice, first to 500 tonnes and later in 1985 to 1,500 tonnes. The capacity expansions gave way to new

types of ships and the customer base grew. At the same time, new personnel and competences were brought into the shipyard. Eight newbuildings were delivered in the 1980's and many Danish, Scottish, Icelandic and Faroe Islands ships were renovated and extended during this period.



## DANIDA

UNFAVOURABLE TIMES FOR FISHERIES and the shipbuilding industry in the 1990's led Karsstensen's Shipyard to mitigate their circumstances by entering into a number of large contracts with The Ministry of Foreign Affairs DANIDA (Danish International Development Agency). The shipyard's first major assignment abroad was in Tan-

zania to renovate the ferry *Liemba*. After that, several large million kroner orders came in for renovating vessels, newbuilding ferries and direct consulting services at first in the African states of Tanzania, Malawi, Ghana and then Cambodia and Vietnam in Asia.

## New times

DURING THE 1990'S, THE SHIPYARD DEALT mostly with repair and maintenance tasks, as well as larger rebuilds. One of the advantages of the new slipway from 1985 was that it enabled tankers and cargo ships to be brought onshore. Slowly, the business began to turn around and towards the end of the 1990's the shipyard grew by 50%.

Along the quay lay vessels from Scotland, Ireland, Greenland, Iceland, Canada, Norway, Sweden and Denmark and the order book stretched for the first time far into the following year. In 1996, the Skagen Chamber of Commerce named the shipyard 'Enterprise of the Year' in Skagen.



In 1997, the *Western Viking* was delivered to Killybegs and shortly after the brothers Bruce and Graham Thomson arrived from Lossiemouth in Scotland to Skagen and commissioned a new-building, the hull of which was delivered from Poul Ree, Stokkemarke. The ship was 33.95 metres long and 10.50 metres wide. It was named *Westro* and was equipped to fish for Atlantic Wolffish, cod, haddock and monkfish with two trawls simultaneously at depths up to 1000 metres.

The shipyard continued to go from strength to

strength, receiving the prize 'Growth and Commitment' from Frederikshavn Business Council in 2009.

The shipyard will soon reach the milestone of newbuilding no. 500. In fairness it should be said that the tally includes newbuildings from the now defunct Nipper's Shipyard, yet it still represents an impressive piece of history in the industry, which the management, employees and the town of Skagen should all be proud of.

