



# PRESS RELEASE

*Knud E. Hansen A/S, Denmark, has designed a new 800/1000 Pax-Ferry - “New Smyril” - for the Faeroe Islands.*

*The vessel has been developed during 2000 and 2001 in close cooperation between the Shipowner and Knud E. Hansen, and has been designed to service the route between Thorshavn and Suderø. This shipping route is the only connection for the inhabitants and industry on Suderø to the capital of the Faeroe Islands. Therefore the aim of the design was to develop a “workhorse”, capable of servicing the route in all weather conditions. The weather conditions during winter can be very rough, bearing in mind that the Faeroe Islands are located quite unprotected in the Atlantic Ocean.*

*The design of the vessel has now been presented to shipyards world-wide for their tenders. It is the Shipowner’s intention to sign the building contract around New Year 2001/2002 in order to put the vessel into service in the summer of 2004.*

## **800/1000 Pax-Ferry**

In the autumn of 2000 the Shipowner “STRANDFARASKIP Landsins” (SSL) contracted with Knud E. Hansen A/S (KEH) of Denmark to draw up a design of a Ro-Pax Vessel. KEH’s more than 60 years record of designing ferries ensures that the vessel will live up to the expectations of the population on the Faeroe Islands, as this assignment fits well into KEH’s line of work and experience with this type of vessel.



**Figure 1.** View of the 800/1000 Pax-Ferry



## **STRANDFARASKIP Landsins**

The Shipowner, SSL, is a state-owned transport company. The company's activities are within domestic transportation of goods and passengers within the Faroe Islands incl. bus, trailer and ferry traffic. The company operates 10 ferries.

### **Design Process**

For a long period, SSL had been investigating the service criteria of a potential new vessel for the route Thorshavn–Suderø. The industries and the population of Suderø were interviewed, and the summary was presented in a so-called “specification of requirements”.

At an early stage in the design process, KEH worked out a number of design concepts on the basis of the “specification of requirements”. The concepts were presented to SSL at a so-called “kickoff meeting”. In this way SSL's ideas were integrated in the design at a very early stage.

During the design process, KEH was invited to sail onboard the existing vessel on the route in order to experience the conditions in which the new vessel will be operating and also to observe the routines and comments of the crew.

### **Design Criteria**

The vessel will be servicing a route with severe weather conditions.

The Owner stated that the intention of the vessel was to make an efficient “traffic machine”, capable of servicing the route between Thorshavn and Suderø with a high degree of reliability. As the vessel is the only connection to Suderø, it has been designed with the highest degree of redundancy.

The vessel has also been designed with a high degree of flexibility with respect to various cargo types, as there is a great variation in the number of passengers, cars, lorries, trailers, mafi's, road cranes etc. The vessel is also to be able to service other ports on the Faeroe Islands, which have different port facilities, water depths etc.

As a result of the “specification of requirements” and the Owner's requirements, the vessel has been designed with two stern ramps and a “turning area” on the car deck inside the vessel, as no bow ramp is fitted.

The accommodation has been arranged in the middle of the vessel, in order to minimize accelerations and movement in bad weather situations, ensuring good comfort for the passengers. The interior design has been made in a flexible way, so that one or more areas can be closed in winter period when the amount of passengers is limited.

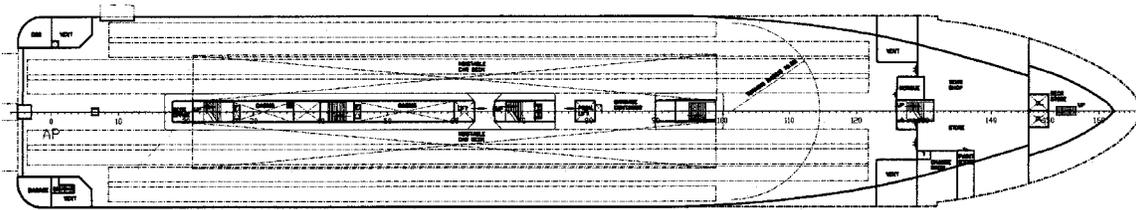


## Car Deck

The car deck has been designed with two stern ramps, a centre casing, and two hoistable car decks, one on each side of the casing.

When the hoistable decks are in use, trailers have one free lane in each side of the vessel and in the turning area. This arrangement makes it possible to load both cars and trailers simultaneously, without having to hoist/lower the hoistable decks.

The flexibility of mixing cars and trailers is optimised and the required time in port can be kept at a minimum.



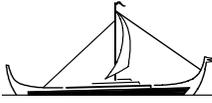
**Figure 2.** Car deck layout

## PROPULSION

For choosing the right propulsion solutions, several options had to be evaluated:

- Two azimuth propellers without rudders, diesel electric.
- Two azipod propellers without rudders, diesel electric.
- Two FPP propellers, diesel electric.
- Two CPP propellers driven via gearbox by two/four main engines.

A solution with two CPP propellers with two gears and four identical engines was finally selected, after complexity, redundancy, initial cost and running expenses, manoeuvrability, spare parts, etc. had been evaluated and considered.



## Design Summary

Length over all	approx.	135.00	M
Length between perpendiculars		123.00	M
Breadth moulded		22.70	M
Depth, moulded to upper deck		29.00	M
Design draught moulded		5.60	M
Scantling draught moulded		5.80	M
DWT at design draught (5.60 m)	approx.	2,100	T
DWT at scantling draught (5.80 m)	approx.	2,660	T
Main engine output MCR	approx.	4 x 3,840	kW
Speed in service condition*)		21.00	Knots
Range		4,800	Nautical miles
Bow thrusters		2 x 1,100	kW
Generator Capacity		4 x 515	kW

\*) The service condition is defined as a condition on design draft (5.6 m) including 15% sea margin and engines running at 85% MCR.

## Car and Passenger Capacity

Main Deck: 150 cars or 60 trailers 18 meters long.

Hoistable car deck: 50 cars.

Passengers: 976 passengers during the summer, and 800 passengers during the winter.

## Further Information

For additional design information and to see the design report please click in on SSL's homepage: [www.ssl.fo](http://www.ssl.fo), or the homepage of Knud E. Hansen A/S:

[www.knudehansen.com](http://www.knudehansen.com) under the subtitle "News".

Alternatively please contact Knud E. Hansen A/S at phone + 45 32 83 13 91, fax + 45 32 83 13 94, or e-mail [keh@knudehansen.com](mailto:keh@knudehansen.com)

*Knud E. Hansen A/S has provided ship designs and services to owners and shipyards for over 60 years. Our 40 naval architects and marine engineers collectively hold a wealth of knowledge and experience, resulting in innovative and the most overall economical designs. Further Knud E. Hansen A/S is an independent company, free from economic ties to the marine industry and thus providing unbiased advice, based on sound engineering and economical principles only.*