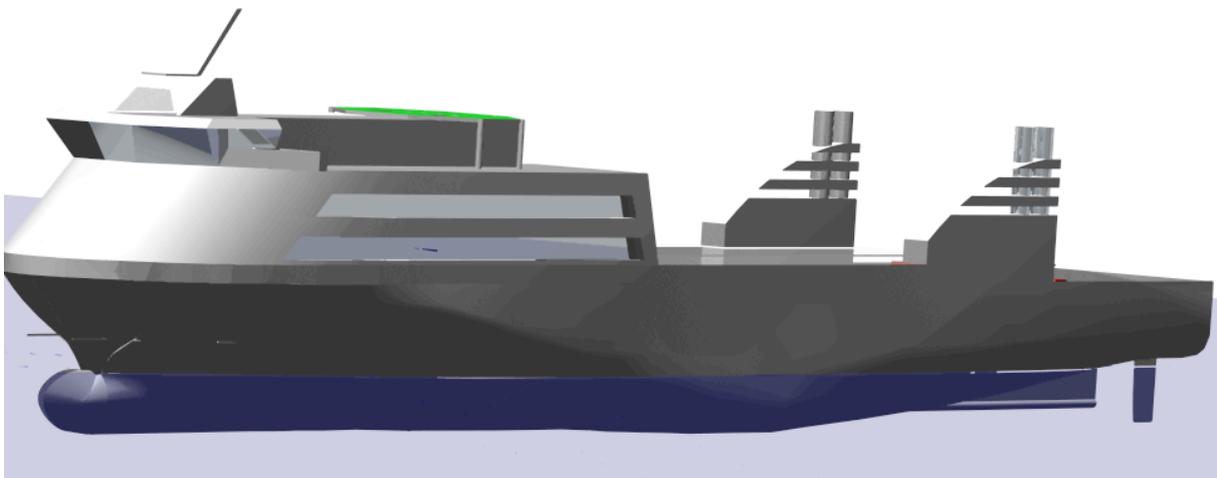


CARL-JOHAN SÖDER  
cjosder@kth.se  
0707-338279



**Marina system**

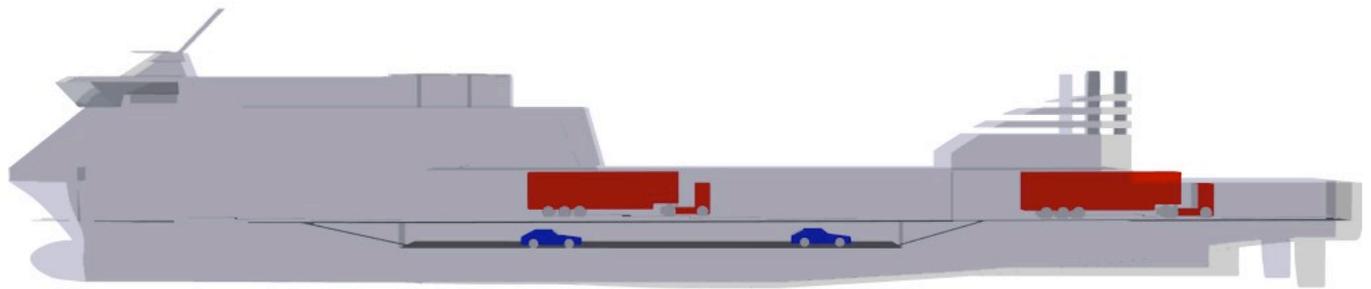


## **m/s Victory**

***300passenger 30 trucks and 30 cars RoPax ship***

**A RoPax** ship m/s Victory has been developed that is adapted for voyages in the Lake of Victoria in Africa. The ship is able of carrying 30 trucks, 30 cars and 300 passengers at a speed of 17 knots in a safe and economical way. The design speed was determined after propulsion analyses in TRIBON with Holtrop and Mennens method. 17 knots was found to be a good compromise between required engine power and sufficient speed in order of covering the voyage in time.

The stability was calculated in TRIBON for the case of a fully loaded and light ship and is fulfilling the IMO 749 Intact stability Criteria.

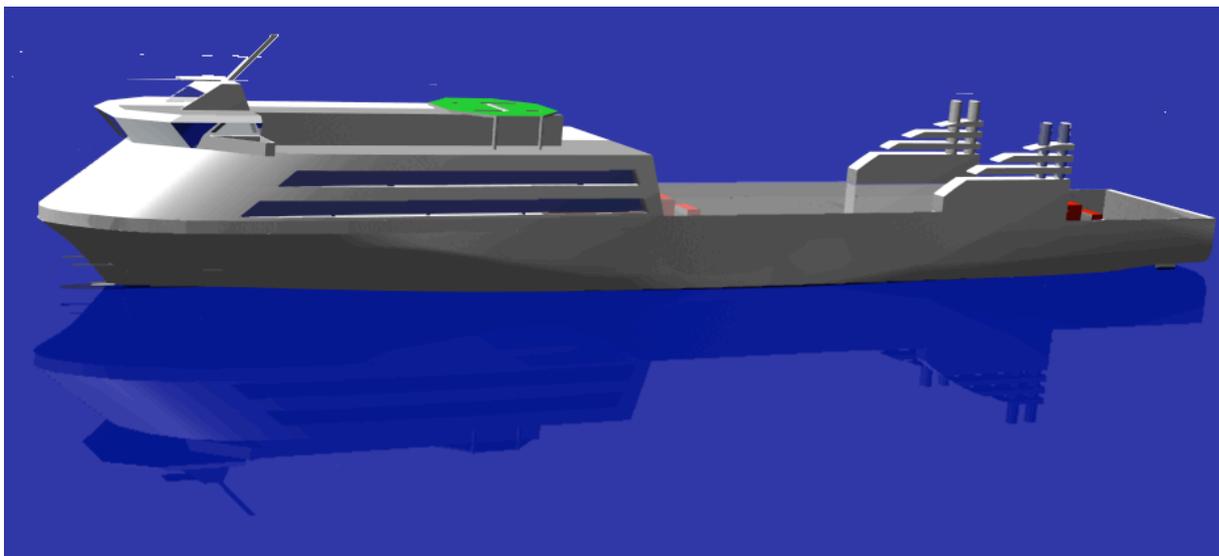


## Main particulars m/s Victory

Length overall	110 meters
Length between perp.	100 meters
Passengers, max	300 persons
Crew	18 persons
Draught, extreme	3.2 meters
Breath	15 meters
Height (keel-masttop fore)	25 meters
Light ship	1200 tons
Displacement (moulded 3.20)	2687 tons
Fuel oil tanks	400 m <sup>3</sup>
Fresh water tanks	300 m <sup>3</sup>
Water ballast tanks	1200 m <sup>3</sup>
Trailer lane capacity	460 meters
Car lane capacity	180 metres
Design speed	17 knots
Freeboard height	2 meters over water level (minimum)

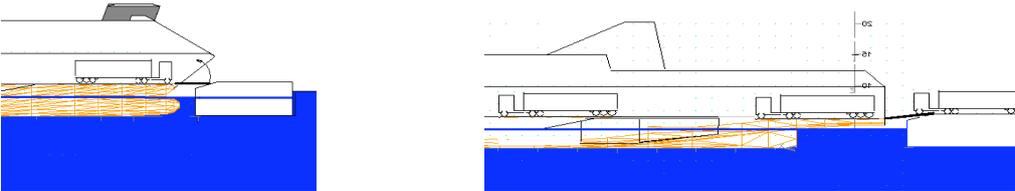
## Propulsion particulars

Speed	17 knots
Engine output 5000kW	2 x2500kW
Consumption (2 main engines)	10-15t/day
2 screws with 2.7 meters in diameter and 4 blades.	
Optimal at 234rpm	
Pitch ratio	1.056
Blade area coefficient	0.764
Shaft height from keel	1.5 meters
Bow thrusters	1 x 700kW



# Cargo Handling

The ship will be fitted with a bow door and a stern ramp which will allow loading from both the fore and aft in classic RoRo manner. If the cars should be able to roll on/off the ship special arrangements is needed in the ports. The loading docks have to have approximately the same height from the sea level as the ship. The easiest way to solve this problem at the ports were such arrangements are missing is to construct floating shore ramps. The shore ramps could be built at the same shipyard that will build the ship. The advantage with these kinds of arrangements is great flexibility as well as the property that they will have the same height from the sea all the time because they are floating.



The trailers will normally be stored at deck 3 which can load 460 meters of trailers. This deck is fairly high up from the sea level with the reason of that the ship is not as slimed there as close to the waterline which mean that more trailers can be stored. This also results in a free board height of 2 meters. The cars will be stored at deck 2 which can load 180 meters of cars. Between deck 2 and 3 there is water proof doors.

