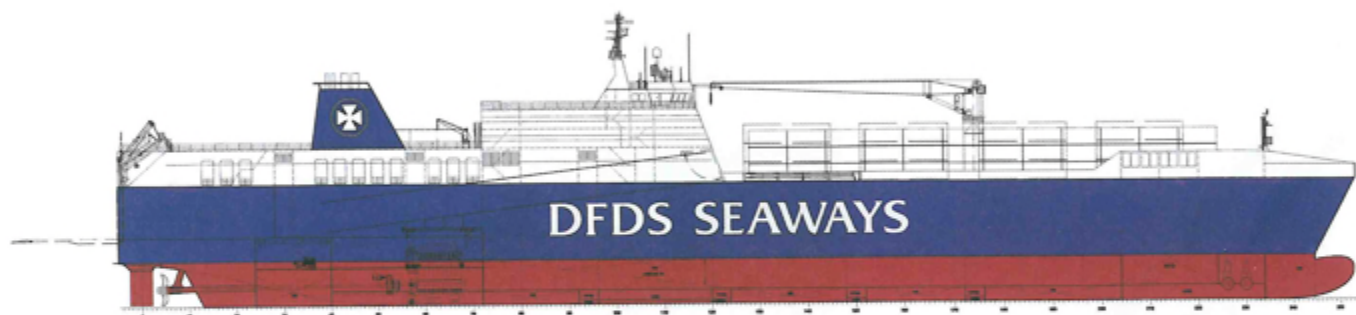




# Ramping up the logistics capability



With the two DFDS ARK vessels expected later this year and the imminent order for two more ro-ro vessels for the French Ministry of Defence, NATO countries are at last obtaining some purpose built tonnage that will be able to meet the needs of military transport in the coming years.

**A**fter a hectic period associated with the military campaigns in Iraq and Afghanistan as well as a number of peacekeeping and military missions in Africa, the military logistics planners have a very good understanding of what hardware they need. It is also remarkable that the various European MoDs have come to generally similar conclusions. In the early stages of any conflict, there is a pressing need for the transport of military equipment, especially tanks, armoured cars, mobile artillery, armoured personnel carriers and other wheeled or tracked vehicles. This type of sealift capability is also required after a conflict is resolved. With most countries planning to pull out of Afghanistan in 2013/14, this is presently the focus of NATO's planners.

However, once the military are in place, the need changes to one of resupply where container transports dominate. Today, whether it is rations, water or ammunition, specialized military containers are employed but both loading and discharge ports are not suitable for cellular containerships. The vessels that are favoured must therefore be a combination of ro-ro and lo-lo, capable of loading and discharging at the most basic facilities.

## The ARK newbuildings

The first ARK newbuilding for DFDS is under the final stages of construction at the P+S Shipyard and is due for completion later this year, somewhat later than planned due to delays in preceding projects. The vessels will be on charterback to DFDS, available on a 15-60 day notice if required by the German or Danish MoD. It is understood that the vessels will replace two chartered vessels in the DFDS fleet, the first being the TOR DANIA, on the Immingham - Cuxhaven route.

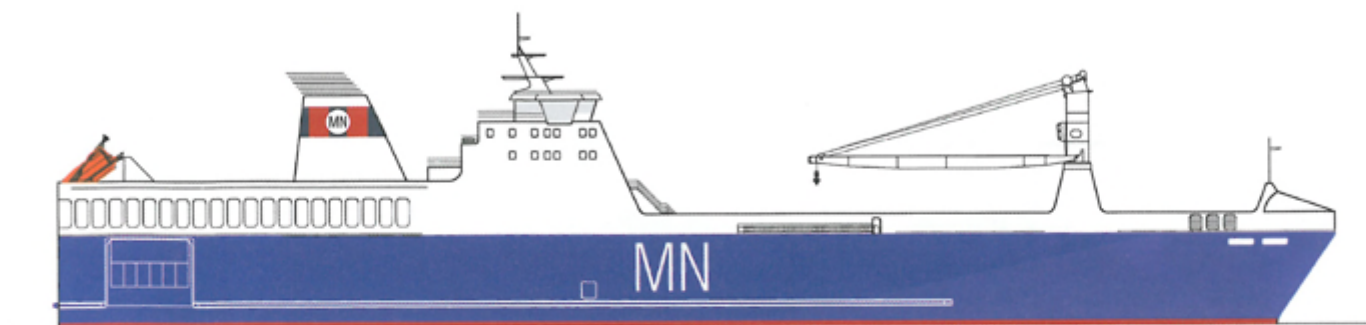
The 3,000-lanem vessels are not small, with an overall length of 195.2m and 30.5m beam, for service within DFDS' route network where economies of scale have become very important. Designed with three ro-ro decks, both the 6.8m high main and tanktop decks can be loaded with double stacked containers on mafis or cassettes. A large 1,900m<sup>2</sup> hoistable cardeck in the lower hold gives considerable flexibility to transport new vehicles, as DFDS does on the Cuxhaven route, or even light military jeeps.

The weatherdeck is split into two halves. The covered aft part under the accommodation is reserved for ro-ro cargo while the open forward half is also equipped for containers loaded three high by the portside mounted

The ARK FORWARDER is being loaded.



Photos: Jean-Louis Vannier



- 40t deck crane or by forklift truck. 342 TEU can be stacked in this area.

Access into the vessels is via a pair of hydraulically operated stern ramp/doors supplied by Cargotec Macgregor. Both ramps are 14.0m long plus 3m flaps, the portside entrance being 10.0m wide and the starboard 8.5m wide. The auxiliary access has been located on the portside at the stern with a 10m plus 4m flaps length by 10.0m wide ramp. The 4.5m wide fixed internal ramp to the tanktop is located on the starboard side, covered by a 68.25m long by 5.4m wide side hinged flush hatch. The fixed ramp to the upperdeck is just to the portside of the centreline, closed off by a 5.8m wide by 4.7m high top hinged door at the top of the ramp underneath the superstructure.

Unusually, two slow speed diesel engines have been specified for propulsion. MAN B&W 8S40ME-B9 engines were chosen, each with an 9080 kW output at 146 rpm. The engines are directly coupled to 4.8m diameter Alpha cp propellers for a 20.5 knot speed. However, the vessels will be sailing at an economic speed of 18.6 knots with DFDS and 12 knots on one engine while in military convoy. Because the two stroke engines are tall, they intrude into the maindeck cargo space. While the portside engine can fit underneath the internal ramp, a wide casing is needed for the starboard engine, sandwiched between the ramp to the tanktop and the ramp to the upperdeck. MAN have also supplied the three 16/24 gensets, each with an 855kW output.

DFDS' good operating experience with

their Flower class of ro-ro, equipped with a single MAN B&W two-stroke engine, was the primary reason why this type of engine was specified again. In particular, the capability to operate reliably over a wide range of rpm and outputs was highly important.

With the two new vessels in service, the joint German and Danish ARK operation will have five ships at its disposal. Three will be operated by Germany - the two newbuildings and the SUECIA SEAWAYS and two will be operated by Denmark, the ARK FUTURA and BRITANNIA SEAWAYS. Only one of the five vessels, the ARK FUTURA, is on permanent charter to ARK and the remaining four on varying periods of notice.

### The French project

The French Ministry of Defence (MoD) has been tendering since 2009 with commercial operators for a ►

Leclerc tanks, an unusual cargo for ARK FORWARDER.



Photo: Jean-Louis Verrier



- new Sealift capability. Following discussions with the remaining shortlist of shipowners, an announcement is expected imminently. A total of five vessels are involved. Two of them will be chartered on a permanent basis to supply the overseas bases where French forces are operating. Three more vessels will be needed at short notice in case of any emergency. According to the tender, 2,500 lane metres of ro-ro capacity is required within 5 days and a further 10,000 lane metres within two weeks.

This requirement presupposes that the owner and operator would be employing the vessels on a commercial basis on shortsea routes from France. The only French owners currently in this position are CMA-

CGM and LD Lines both of whom have apparently bid for the contract. A third owner and the one which currently charts most of its ro-ro ships to the French MOD, is Compagnie Maritime Nantaise (CMN). CMN has already signed a newbuilding contract with Hyundai Mipo Shipyard for two ro-ro ships with an option for a third. The ships have been designed by Danish consultants Knud E. Hansen.

The vessels conform to the by now well-known sealift format offering a combination of ro-ro and container capacity. The vessels will have an overall length of 160.0m because of port restrictions, 27.0m beam and 7.2m draft. The maximum ro-ro intake will be 2,800 lane metres, only slightly less than on the ARK

Left: MN PELICAN

Right: MN EIDER



Photos: Jean-Louis Verre