

Marine Selfunloaders

# Deck conveyor system



TECHNICAL INFORMATION

*Balsfjord*

# MacGregor deck conveyor system

The 70,000 dwt transfer vessel, *Balsford*, features a deck conveyor system and is intended for offshore lightering from capesize vessels in the Persian Gulf

In 2001, the 70,000 dwt bulk carrier, *Balsford*, was converted into a transfer vessel with cranes and a deck conveyor system. The conversion was carried out at Dubai Drydocks, in Dubai, UAE, for Norwegian owner, Torvald Klaveness & Co AS.

The conveyor system is mainly designed to handle iron ore pellets and iron ore rubble, but is also suitable for aggregates and coal.

## System description

*Balsford* is equipped with four cranes mounted on eccentric arms that transfer cargo offshore from capesize vessels into its cargo holds.

The cargo is then discharged from *Balsford* using its cranes, which load material into two large deck hoppers.

From the deck hoppers, material is conveyed on the longitudinal conveyor, cross conveyor and boom conveyor and transferred to the shore-receiving conveyors. The discharge operation is supervised and controlled from a control cabin located in the boom conveyor's supporting A-frame, which provides a good overall view of the conveyor system and jetty.

The two large hoppers can be lifted from their position either for sea stowing or, if the hoppers interfere with the ship loaders during operation.

The boom structure contains one inner fixed conveyor and one outer reversible telescopic conveyor for easy positioning to the shore hopper, or maximum spreading of the material when discharging directly to the stock pile.

## Vessel dimensions

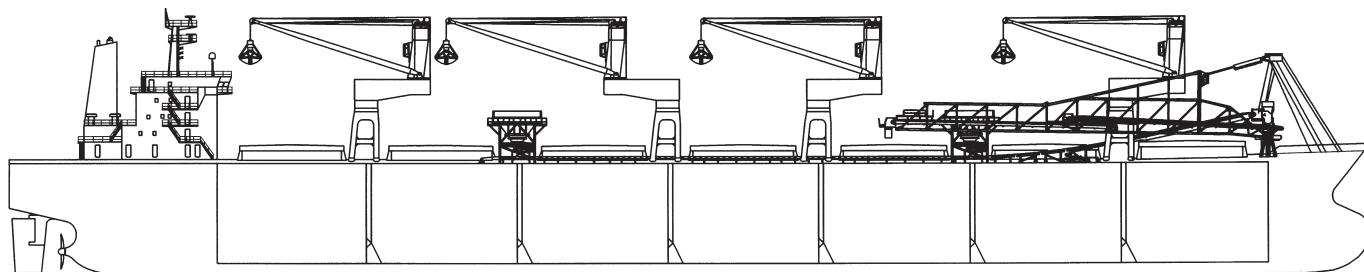
Length, overall	225.0m
Length between p.p.	215.0m
Breadth, moulded	32.20m
Depth, moulded	18.50m
Draft	12.40m
Deadweight	70,000 dwt

## System data

Capacity	2,500 t/h or 1,135 m <sup>3</sup> /h
Cargo	iron ore pellets, coal, sand, etc.

## Boom data

Length of boom conveyor	67.4m
Telescopic shute length	3.1 - 5.7m
Maximum hoisting range	18 degrees
Approx. slewing range	190 degrees



Design principle of the deck conveyor system

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