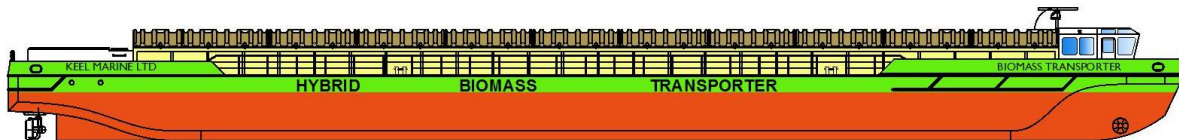


# Hybrid Biomass Transporter Barge



## Principal Particulars

Length Overall	:	61.0 metres
Length BP	:	59.0 metres
Beam Overall	:	6.1 metres
Air Draught	:	3.6 metres
Design Draught	:	2.5 metres
Maximum DWT	:	650 tonnes
Maximum speed	:	10 knots

## Machinery

Marine Diesel Genset	360	kW
Lithium-ion battery bank	200	kWh
Azimuthing thruster	240	kW (each)

## Cargo Capacities

Biomass – Woodchip	335	tonnes
Biomass – Wood pellets	650	tonnes
Pulverised Fuel Ash	650	tonnes

## Descriptive Summary

With its main dimensions set to suit those of major UK inland waterways this vessel is capable of carrying high loads of biomass from the point of import to power stations located alongside rivers and inland waterways in an environmentally friendly manner.

The hybrid propulsion system enables the vessel to operate at peak efficiency during the highly variable operational cycle inland and estuarine vessels encounter. A substantial reduction in fuel costs and environmental impact compared with both existing vessels and road transport is enabled as high loads are met through a combination of diesel generator output and battery power whilst periods of low speeds and lock transit can be met solely by battery power.

The biomass cargo is contained within four covered 280m<sup>3</sup> ballast holds which can be partially filled with water ballast to meet constricted air draught limits when operating unladen. Dedicated water ballast tanks in the double bottom permit ordinary unladen operation.

The basic design can be further optimised to suit a particular route, with several options available for the hybrid propulsion system from predominantly diesel driven through to predominantly battery powered. Furthermore the design of the vessel permits adaption to a range of other bulk cargoes and waste products likely to be transported by inland waterways.