



## Matalik, 500 GT SOLAS Passenger Vessel for Tokelau

### General:

The vessel, which is the only means of getting to and from the atolls, will be the first purpose built SOLAS passenger ship serving Tokelau, carrying up to 60 passengers in addition to 50 tonnes of cargo and supplies. With a design speed of 11.50 knots, the 270 nm voyage between Tokelau and Apia, Samoa, will take just under 24 hours. A crane for loading/unloading cargo is also provided. Considering the sea conditions, and the length of the voyage, passenger comfort is a high priority for the design. Vessel accelerations for the passengers are being minimised by placing the accommodation aft, and Lloyd's Register PCAC (Passenger and Crew Comfort) notation is being used as a design criteria. Environmental considerations are also high on the agenda, in keeping with the impressive green credentials of Tokelau, who is the world's first solar powered country. Battery banks will provide electrical power for essential services including air conditioning during hours of darkness. Sail assistance is also being investigated.

### Main Particulars:

Length o.a.	43.50 m
Length p.p.	38.56 m
Breadth moulded	9.90 m
Depth to main deck	4.10 m
Draught (design)	2.60 m
Deadweight	185 t

### Capacity:

No. of passengers	60 pax
No. of crew	12 pers
24 bunk beds, 16 reclining seats	
5 ten foot container units, including 2 reefer units	

### Speed:

Service (85 % MCR)	11.50 kn
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### Machinery and Equipment:

Diesel Mechanical with 2 CPP	
Main engines	2 x Yanmar 6EY17W
Installed power	960 kW
Aux. power	110 kWe auxiliary generator and 2x150 kWe PTO generators
Bow thruster	150 kW

### Miscellaneous:

Classification	Lloyd's Register of Shipping
IMO number	9724934

### Scope of Work:

Concept and Basic Design, including:  
 CFD Lines optimisation  
 Seakeeping prediction  
 Noise and Vibration prediction  
 HVAC Design  
 EEDI calculation

### Ref. No.:

KEH 13068