ZANZIBAR 1: First of two high-speed ferries for Tanzania

A long with her sister, Zanzibar 1 should fulfill some speedy crossings if her sea trial results are anything to go by; according to designer CoCo Yachts, her official speed was clocked at more than 37 knots when travelling with a trial load of 45 tonnes. The designer partly credits this capability to an extensive round of high-performance computing analysis when designing the ferry's hull, citing the use of NUMECA FINE/Marine CFD software.

The aluminium ferry (known as the Coastal Cruiser 448 class) was designed and built for new Tanzanian operator Zan Fast Ferries in accordance with Bureau Veritas’ classification requirements and the terms of IMO High Speed Craft Code 2000. Features include “fresh and light” interior design, with big side windows specified to result in decent outside views. Zanzibar 1 is also furnished with West Mekan seats with leather upholstery; passengers in gold or platinum class can also take advantage of reclining seats with built-in USB charge points. Additional outdoor seating is arranged on the upper aft deck and main deck fore.

Vessel access is enabled by six electrical winch-operated ramps: four for passengers and two dedicated to luggage trolleys. The ferry has an independent luggage space which can fit 12 luggage trolleys. Zanzibar 1 is equipped with an automatic ride control system, supplied by Humphree, which was specified to keep the trim at the optimum point, for reduced fuel consumption. This system is also intended to reduce motions in harsh wave conditions. CoCo Yachts elaborates: “Trials in waves up to 3 m confirmed the presence of the Humphree system in combination with the hull, where accelerations were less than expected [≤1g] and the speed maintained at 35+ knots, sailing against the waves.”

Her sister, Zanzibar 2, is scheduled to enter service in Q1 2020.

<table>
<thead>
<tr>
<th>TECHNICAL PARTICULARS</th>
<th></th>
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<tbody>
<tr>
<td>Length, oa</td>
<td>49.72m</td>
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<tr>
<td>Length, bp</td>
<td>47.07m</td>
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<tr>
<td>Breadth, moulded</td>
<td>10.9m</td>
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<tr>
<td>Depth, moulded</td>
<td>4m</td>
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<tr>
<td>Gross tonnage</td>
<td>652 tonnes</td>
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<tr>
<td>Design, draught</td>
<td>1.35m</td>
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<tr>
<td>Design, deadweight</td>
<td>58 tonnes</td>
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<tr>
<td>Deck space</td>
<td>1,052m²</td>
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<tr>
<td>Service speed</td>
<td>33.5 knots @ 90% MCR</td>
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<tr>
<td>Max speed</td>
<td>39.5 knots @ 100% MCR</td>
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<tr>
<td>Range</td>
<td>400nm</td>
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Main engine(s)
- Number of engines: 2
- Make: MTU
- Model: 16V4000M63L
- Output of each engine: 2,240kW
- Number of waterjets: 2
- Make: MJP
- Model: 9050
- Output speed: 884rpm
- Waterjets:
  - Number of waterjets: 2
  - Make: MJP

Bridge electronics
- Radar(s): Furuno
- GMDSS: Furuno
- GPS: Furuno
- Gyro: Anschütz
- Chart plotter: Onwa
- Engine monitoring system: MTU
- Fire detection system: Kentec

Onboard capacities
- Fuel oil: 13,000 litres
- Fresh water: 1,500 litres
- Sullage: 1,500 litres

Complement
- Number of crew: 9
- Number of passengers: 448
- Classification society: Bureau Veritas
- Notations: 1.1 Hull • MACH High Speed Craft Passenger Carrier Sea Area 2

Other important international regulations complied with: IMO High Speed Craft Code 2000 – Cat A