

Shipyard De Hoop reveals ‘completely new re-engineering’ behind *Amadeus Queen*

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The introduction of the aft swimming pool had an impact on the technical design of Lüftner Cruises' Amadeus Queen

Shipyard De Hoop has introduced technical innovations on Lüftner Cruises' new *Amadeus Queen* – the 15th river cruise vessel the shipyard has delivered to the river cruise operator.

Named *Amadeus Queen*, the new vessel follows the model of the Amadeus Silver ships – but the yard has “decided on a completely new re-engineering, based on the lessons learned from the previous vessels”, it said.

The vessel is now in service following its naming ceremony on 4 April.

Shipyard de Hoop pointed out the vessel includes a large indoor swimming pool on the aft. It commented “The weight increase caused by the redeveloped luxury aft area was a specific challenge, as the aft underwater ship does not provide much buoyancy. As such, the engineroom also had to be scrutinised and completely re-engineered.”

The layout of the propulsion system and aft hull design, however, were redefined to compensate for the addition of the pool. This resulted in an “upgraded, well-balanced and matched engineroom layout, allowing for an even higher maximum cruise speed with the same machinery. Due to the higher efficiency, lower fuel consumption and reduced exhaust emission levels were accomplished”.

As a result, using the two Caterpillar 3508 main engines, rated at 783 kW @ 1600 RPM, the ship can achieve a service speed of 22 km/hr. The engines directly drive two Veth Z-drives with contra-rotating propellers. These main thrusters are recessed, limiting the minimum operational draught to only 1.5 m and allowing the vessel to cruise most European rivers where the water depths are often critical.

To lower the impact of propeller blade impulses to the hull, an air curtain buffer was installed – by blowing air in between the propeller and hull, the pressure pulses are not transmitted to the hull.