

CERTIFICATE OF APPROVAL IN PRINCIPLE

H2 Powered Car Carrier Inland Vessel AiP-Certificate no. 202200311


This is to declare that the Approval in Principle (AiP) of the following Project:

Project:	Green Powered RORO PCC 1000		
Applicant:	Aurelia Operetteweg 4 1323 VA Almere-Stad The Netherlands		
Designer:	Aurelia The Netherlands		
Description:	RO-RO Cargo Ship, H2 Fuelled, Fuel Cell - Battery Powered, HVSC, Green Plus, Inland Waterways		
Characteristics:	Length Overall	110.5 m	
	Breadth	18.8 m	
	Scantling Draft	3.0 m	
	Max. Service Speed	13.3 knots	
	Capacity	800-1000 RT	
	Propulsion Power	1500 kW	
	Battery Capacity	1512 kW/h	
	Fuel Cell Power	1818 kW	
	Hydrogen Storage	10,5 tons	

has been carried out in compliance with the process described in the "RINA Guide for Approval in Principle of Novel Technologies" (GUI/19/ENG- Edition 2014), on the basis of the below listed technical criteria.

- ❖ RINA Rules for the Classification of Ships
 - Part C, Chapter 1, Appendix 14 (Hydrogen Fuelled Ships)
 - Part C, Chapter 2, Appendix 2 (Battery Powered Ships)
 - Rules for Fuel Cells installation in Ships (FC Ships)
- ❖ RINA Rules for the classification of inland Waterways Ships and for Conformity to Directive 2016/1629/EU
- ❖ ES-Trin European Standard laying down Technical Requirements for Inland Navigation Vessels

Issued in **HAMBURG** on **August 30, 2022**.



RINA Services S.p.A.
Patrizio Di Francesco, Murat Kurt

This certificate consists of this page and one Annex.

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The following submitted documentation, were reviewed for the Approval in Principle Certificate:

Documents/Drawings

- ❖ RORO Aurelia Data Sheet REV02
- ❖ 22C03.A1.HS.20 Rev02 Project Report
- ❖ 22C03.A1.OU.20 Rev00 – Technical Description Mobilization of H2 Cylinders
- ❖ 22C03.A1.HS.02 Rev03 – GA Plan
- ❖ 22C03.A1.EL.15 Rev00 - Electric Load Balance
- ❖ 22C03.A1.EL.02 Rev01 - Single Line Diagram
- ❖ 22C03.A1.HS.40 Rev01- Passive Protection Preliminary
- ❖ 22C03.HS.21 Rev00 – HVAC
- ❖ 22C03.A1.MA.12 Rev01 - H2 Fuel Supply 'P&ID

It is intended that the general conditions and requirements listed and detailed in RINA Document:

- ❖ "H2 Powered Car Carrier Inland Vessel" RINA Approval in Principle Report

have to be fulfilled in the detailed design phase, with the possible addition of further measures introduced by the Administration (Flag Authority).

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