



CERTIFICATE OF APPROVAL IN PRINCIPLE

NO. 2024CS3621_01

This is to declare that the Approval in Principle of the following project:

20.000cbm Ammonia Bunker Vessel (Ammonia Fueled)

8.000cbm Ammonia Bunker Vessel (Ammonia Fueled)

Designer
Manufacturer

Gas and Heat S.p.A.
Via Livornese, 796
56122 Pisa (PI), Italy

Description: **NH3 Cargo and Fuel Gas Supply System**

has been carried out in compliance with the process described in the "RINA Guide for Approval in Principle of Novel Technologies", based on the following technical criteria:

- RINA Rules for the Classification of Ships
- International Code of Safety for Ships using Gases or Other Low-Flashpoint fuels (IGF Code)
- International Code for the Construction and Equipment of Ships carrying Liquefied Gases in Bulk (IGC Code)

and based on the below listed reference document provided by the Designer:

- GHP0467-DWG-005-02 – Process Flow Diagram
- GHP0467-DST-001-01 – Technical Specification

It is intended that the general conditions and requirements listed and detailed in RINA Approval in Principle report "NH3 Cargo and Fuel Gas Supply System" n.MAC20620124 Rev.0 are to be fulfilled in the detailed design phase, considering additional requirements introduced through rules development.

Issued in Houston on 19 September 2024


RINA Services S.p.A.