



Lloyd's Register Classification Society (China) Co., Ltd.

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Our Reference: STS/DDT/PH/O-512625

## APPROVAL IN PRINCIPLE

### Combination LNG Carrier Design

(Type C LNG Cargo Tanks in Cargo Holds and ISO Containers (LNG Cargoes) on Upper Deck)

The design concept is based on 3 parties cooperation involving:

- (1) Tynebridge Solutions Inc.
- (2) BMT Titron (UK) Ltd.
- (3) Lloyd's Register Classification Society (China) Co., Ltd.

This is to certify that Lloyd's Register Classification Society (China) Co., Ltd. has undertaken Design Concept Evaluation of the Combination Carrier Design (Type C LNG Cargo Tanks in Cargo Holds and ISO Containers (LNG Cargoes) on Upper Deck), with a view to award an "Approval in Principle". The evaluation included an overall examination of fundamental aspects of the design in accordance with the below LR Class notations:

**✕100A1, Liquefied Gas Carrier, Methane (LNG) in Independent Tanks Type C, Maximum Vapour Pressure 0.375MPa, Minimum Cargo Temperature minus 163°C, ShipRight(SDA, FDA, CM, ACS(B)), \*IWS, LI, ECO,**

**✕LMC, UMS, BWTS, EGCN, DP(CM), LPPF(GC, NG),**

**with descriptive Notes "ShipRight(BWMP(T), IHM, SCM, SERS), ISO Containers (LNG Cargoes) on Upper Deck"**

The design has been based on the following Rules and Regulations:

- Rules and Regulations for the Classification of Ships (Ship Rules) July 2022 Edition plus relevant rule change notices;
- Rules and Regulations for the Construction and Classification of Ships for the Carriage of Liquefied Gases in bulk (Gas Ship Rules) July 2022 Edition plus relevant rule change notices;
- International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code).

Lloyd's Register Classification Society (China) Co., Ltd. considers that the proposed design concept is based on satisfactory standards and can be Approved in Principle. The 'Approval in Principle' does not constitute regulatory approval, the approval of any design deviations from IGC Code needs to be sought from the vessel's proposed Flag Administration at the newbuilding stage.

Detailed assessment of the design, and its specific shipboard application would be subject to the normal classification approval including risk assessment studies to be carried out according to LR's Risk Based Certification (RBC) procedure.

Final Lloyd's Register Classification/Statutory approval will be based upon full compliance with all appropriate Rules and Regulations relating to the recommended Class Notations for the Combination Carrier Design (Type C LNG Cargo Tanks in Cargo Holds and ISO Containers (LNG Cargoes) on Upper Deck).



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