



# APPENDIX TO CLASSIFICATION CERTIFICATE

DNV ID no.:  
**30473**  
Date of issue:  
**2024-06-01**

The contents of this Appendix are applicable to the vessel with DNV ID no.:

**30473**

Built by:

**Shanghai Edward Shipbuilding Co., Ltd.**

as Yard no.:

**131**

The Appendix is to be kept on board the vessel and should upon request be made available to surveyors of DNV.

It is important that the responsible officers on board are informed about the contents of this Appendix.

Issued at **Gothenburg,, Sweden** on **2024-06-01**



for **DNV**

*This document is signed electronically in accordance with IMO FAL.5/Circ.39/Rev.2. Validation and authentication can be obtained from trust.dnv.com by using the Unique Tracking Number (UTN):*  
**nN2602680-nto and ID: 30473**

**Kurt Eide**



## INTRODUCTION

Classification of a vessel is based on certain assumptions regarding operation of the vessel. This Appendix outlines such assumptions. Assumptions associated with specific notations are also included in the Appendix.

In case amendments, additions and/or deletions to the Appendix are required, a new Appendix will be issued by the Society.

The vessel has been assigned the following class:

 **1A1 Tanker for chemicals and oil products BIS E0 ESP Ice(1A) NAV-O TMON**

with the following special features notations: **Ship type 2, a2, b3, c3, f2, str 0.1, k**

in accordance with DNV (Det Norske Veritas) Rules for Classification of Ships.

Class definitions, as well as general regulations for the assignment and retention of class, are given in DNV Rules for Classification of Ships.

The DNV Rules are available for downloading from <https://www.dnv.com/rules-standards/>.

## BASIC ASSUMPTIONS

### General

It is assumed that the vessel is operated in line with documents and appliances approved by the IACS-society responsible for approval of the newbuilding of the vessel and any approved alterations carried out after the newbuilding stage.

Copies of all relevant approved documentation to be available on board.

### Longitudinal Strength

The vessel's longitudinal strength has been found satisfactory, provided the still water bending moment and still water shear force is kept within limits given in the approved loading manual.

Max still water bending moments amidships are:

Hogging:	370 000 kNm
Sagging:	309 400 kNm

## ASSUMPTIONS REGARDING SPECIFIC NOTATIONS

### Service and Type Notations

#### **Ice(1A)**

This ice class notation implies that the vessel has been strengthened for ice breaker assisted navigation in the northern Baltic in winter or areas with similar ice conditions according to the Rule requirements for this notation.

The ice strengthening is based on:

	Fore	Amidships	Aft
Maximum moulded draught "UIWL" (m)	9.25	9.25	9.25
Minimum moulded draught "LIWL" (m)	4.15	5.08	6.00

Minimum required propulsion power (kW)	5896
Special conditions	-

The data for ice strengthening is based on information received from Germanischer Lloyd (GL).

#### Special Features Notations applying to Chemical Carriers

##### General

The following series of letters and numbers describe technical features of the ship:

**Ship type 2, a2, b3, c3, f2, str 0.1, k**

The number following each letter implies that requirements are satisfied also for same letter followed by a lower number.

##### Ship Type

###### **Ship type 2**

This notation implies the ship's damage stability standard is in accordance with that laid down by the International Maritime Organization's (IMO) International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk for 'type 2 ship'.

##### Cargo Tank Type

**a2** denotes the cargo tanks are integral tanks separated from the sea by a double skin.

##### Gauging System

**b3** denotes the cargo tanks have a closed gauging system.

##### Tank Venting System

**c3** denotes the cargo tanks have a controlled venting system with pressure/vacuum relief valves suitable for toxic product.

Pipe connections have been provided for vapour return to ashore installation during loading.

The venting system has high velocity vent valves with gas outlets not less than 3 m above deck/gangway and not less than 15 m away from the nearest air intake or opening to accommodation and service spaces and ignition sources.

The opening pressure of the pressure relief valves is at not less than 0.2 bar above atmospheric pressure.

##### Overflow Control

**f2** denotes permanent independent high- and high/high-level alarms have been fitted.

##### Cargo Stripping Efficiency

**str 0.1** The efficiency of the cargo stripping arrangements of cargo and slop tanks and associated cargo piping is identified as follows: Residue quantity is not in excess of 0.1 m<sup>3</sup>.

##### Segregation Between Cargo and Fuel Oil

**k** denotes fuel oil tanks are separated from cargo tanks by cofferdams.

Assumptions Regarding Cargo Heating

- When the heating system is not in use, it is blanked off outside the engine room.
- When the heating system is in use, the temperature of the heating medium is not to exceed 220°C, and the pressure in the system is kept higher than the maximum pressure head of cargo in the tanks.

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