

RULES FOR CARGO REFRIGERATING INSTALLATIONS

GUIDANCE FOR CARGO REFRIGERATING INSTALLATIONS

Rules for Cargo Refrigerating Installations

2015 AMENDMENT NO.1

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Rule No.67 / Notice No.85 25th December 2015

Resolved by Technical Committee on 28th July 2015

Approved by Board of Directors on 14th September 2015

ClassNK
NIPPON KAIJI KYOKAI

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2015 AMENDMENT NO.1

Rule No.67 25th December 2015

Resolved by Technical Committee on 28th July 2015

Approved by Board of Directors on 14th September 2015

“Rules for cargo refrigerating installations” has been partly amended as follows:

Chapter 4 SPECIAL REQUIREMENTS FOR REFRIGERATING MACHINERY USING AMMONIA AS REFRIGERANT

4.5 Gas Expulsion System

4.5.2 Ventilation System

Sub-paragraph -1(5) has been amended as follows.

1 A mechanical ventilation system, which complies with the following requirements as a rule, is to be installed in the refrigerating machinery compartment so that this space can be ventilated all the time.

((1) to (4) are omitted.)

(5) Exhaust fans ~~and the exhaust ducts in which the fans are installed,~~ are to be of a construction such that sparks are not generated according to any of the (a) to (c) mentioned below that does not allow any sparks to be generated. For the purpose of this requirement, as a rule, motors for driving the fans are to be of the exterior mounted type.

~~(a) Either the impeller or the casing, or both, are made of non-electrostatic, non-metallic materials.~~

~~(b) Non-ferrous metallic material is used in the impeller and the casing~~

~~(c) In case where ferrous material is used in the impeller and the casing, the tip clearance is greater than 13 mm. However, use of a combination of aluminium or magnesium alloy with ferrous materials has possibilities of generating sparks regardless of the tip clearance, therefore, such materials are not to be used in the refrigerating machinery compartment. As a rule, motors for driving the fans are to be of the exterior mount type.~~

EFFECTIVE DATE AND APPLICATION

- 1.** The effective date of the amendments is 1 January 2016.
- 2.** Notwithstanding the amendments to the Rules, the current requirements may apply to ships the keels of which were laid or which were at *a similar stage of construction* before the effective date.

(Note) The term “*a similar stage of construction*” means the stage at which the construction identifiable with a specific ship begins and the assembly of that ship has commenced comprising at least 50 tonnes or 1%* of the estimated mass of all structural material, whichever is the less.

* For high speed craft, “1%” is to be read as “3%”.

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“Guidance for cargo refrigerating installations” has been partly amended as follows:

Chapter 4 SPECIAL REQUIREMENTS FOR REFRIGERATING MACHINERY USING AMMONIA AS REFRIGERANT

4.5 Gas Expulsion System

Paragraph 4.5.2 has been added as follows.

4.5.2 Ventilation System

The ventilation fan which is of “a construction such that sparks” specified in 4.5.2-1(5) of the Rules mean those ventilation fans complying with the requirements of R4.5.4-1(2) of the Guidance for the Survey and Construction of Steel Ships. For the purpose of this requirement, protection screens of not more than 13mm square mesh are to be fitted in the inlet and outlet ventilation openings of the ducts fitted with such fans on the open deck.

4.7 Electrical Equipment

Paragraph 4.7.1 has been amended as follows.

4.7.1 General

The wording “certified safe types for use in the flammable atmosphere concerned” in **4.7.1-1 of the Rules** means electrical equipment having intrinsically safe, flame-proof or pressurized construction ~~grouped into~~ certified as Apparatus Group *I*A and Temperature Class *T*1 or higher as specified in *IEC* 60079 or Explosion Class *d*1 and Ignition Group *G*1 or higher as specified in ~~Technical Recommendation issued by National Institute of Industrial Safety, Independent Administrative Institution in Japan~~ the Recommended Practices for Explosion-Protected Electrical Installations in General Industries (NIIS-TR-NO.39 (2006)) issued by National Institute of Industrial Safety in Japan, or equivalent thereto.

EFFECTIVE DATE AND APPLICATION

1. The effective date of the amendments is 1 January 2016.
2. Notwithstanding the amendments to the Guidance, the current requirements may apply to ships the keels of which were laid or which were at *a similar stage of construction* before the effective date.

(Note) The term “*a similar stage of construction*” means the stage at which the construction identifiable with a specific ship begins and the assembly of that ship has commenced comprising at least 50 tonnes or 1%* of the estimated mass of all structural material, whichever is the less.

* For high speed craft, “1%” is to be read as “3%”.