GUIDANCE FOR THE APPROVAL AND TYPE APPROVAL OF MATERIALS AND EQUIPMENT FOR MARINE USE

Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use 2011 AMENDMENT NO.2

Notice No.93 1st November 2011
Resolved by Technical Committee on 7th July 2011

ClassNK
NIPPON KAIJI KYOKAI

Notice No.93 1st November 2011
AMENDMENT TO THE GUIDANCE FOR THE APPROVAL AND TYPE APPROVAL OF MATERIALS AND EQUIPMENT FOR MARINE USE

"Guidance for the approval and type approval of materials and equipment for marine use" has been partly amended as follows:

Amendment 2-1

Part 6 MACHINERY

Chapter 6 APPROVAL OF USE OF PLASTIC PIPES

6.1 General

6.1.2 Terminology

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

(1) "Plastic" means both thermoplastic and thermosetting plastic materials with or without reinforcement, such as *PVC* and fibre reinforced plastics - *FRP*. Plastic includes synthetic rubber and materials of similar thermo/mechanical properties.

6.9 Testing Procedures and Criteria

Table 6.6 has been amended as follows.

Table 6.6 Requirements and Criteria of Approval Test for Process of Manufacture of Plastic pipes

Test item	Testing method	Criteria
(Omitted)		
Fire endurance	*IMO Res. A.*753(18) Appendix 1, 2 (including any amendments due to *IMO Res. MSC.*313(88))	L1: ~~Fire endurance test (*IMO Res. A753(18) Appendix 1*) in dry conditions, 60 min~~ Pipes without leakage during pressure tests as a result of fire endurance tests (for more than one hour) and pressure tests (for more than 15 minutes) in dry conditions L1W:Pipes with negligible leakage, i.e. not exceeding 5% flow loss, during pressure tests as a result of fire endurance tests (for more than one hour) and pressure tests (for more than 15 minutes) in dry conditions L2: ~~Fire endurance test (*IMO Res. A753(18) Appendix 1*) in dry conditions, 30 min~~ Pipes without leakage during pressure tests as a result of fire endurance tests (for more than 30 minutes) and pressure tests (for more than 15 minutes) in dry conditions L2W:Pipes with negligible leakage, i.e. not exceeding 5% flow loss, during pressure tests as a result of fire endurance tests (for more than 30 minutes) and pressure tests (for more than 15 minutes) in dry conditions L3: ~~Fire endurance test (*IMO Res. A753(18) Appendix 2*) in wet conditions, 30 min~~ Pipes without significant leakage, i.e. not exceeding 0.2 *l*/*min*., during pressure tests as a result of fire endurance tests (for more than 30 minutes) and pressure tests (for more than 15 minutes) in wet conditions
(Omitted)		

EFFECTIVE DATE AND APPLICATION (Amendment 2-1)

1. The effective date of the amendments is 1 November 2011.

Amendment 2-2

Annex 3 PROCEDURES FOR PROTOTYPE TESTS FOR TYPE APPROVAL AND PRODUCTION TESTS OF INFLATABLE LIFERAFTS

Chapter 1 PROCEDURES FOR PROTOTYPE TESTS FOR TYPE APPROVAL OF INFLATABLE LIFERAFTS

1.2 Strength and Performance Tests

1.2.2 Jump Test [5.2]

Sub-paragraph -1 has been amended as follows.

1 It is to be demonstrated that a person can jump on to the liferaft, with and without the canopy erected, from a height above the floor of at least 4.5 *m* without damaging the liferaft. The test subject is to weigh not less than ~~75~~82.5 *kg* and is to be wearing hard bottom shoes with smooth soles and no protruding nails. The number of jumps performed is to be equal to the total number of persons for which the liferaft is to be approved.

Paragraph 1.2.7 has been amended as follows.

1.2.7 Loading and Seating Test (Freeboard Measurement) [5.7]

The freeboard of the liferaft in the light condition, including its full equipment but no personnel, is to be recorded. The freeboard of the liferaft is again to be recorded when the number of persons for which the liferaft is to be approved, having an average mass of ~~75~~82.5 *kg*, and each wearing an immersion suit and lifejacket, have boarded and are seated. It is to be established that all the seated persons have sufficient space and headroom and it is to be demonstrated that the various items of equipment can be used within the liferaft in this condition and, in the case of an inflated liferaft, with the floor inflated. The freeboard, when loaded with the mass of the number of persons for which it is to be approved and its equipment, with the liferaft on an even keel and, in the case of an inflatable liferaft, with the floor not inflated, is not to be less than 300 *mm*. Unless the configuration of both sides of a canopied reversible liferaft are identical, this test is to be repeated for both sides of the liferaft.

Paragraph 1.2.15 has been amended as follows.

1.2.15 Damage Test [5.17.1]

It is to be demonstrated that, in the event of any one of the buoyancy compartments being damaged or failing to inflate, the intact compartment or compartments is (are) to support, with positive freeboard over the liferaft's periphery, the number of persons for which the liferaft is to be approved. This can be demonstrated with persons each having a mass of ~~75~~82.5 *kg* and seated in their normal positions or by an equally distributed mass.

1.2.16 Righting Test [5.17.2]

Sub-paragraph -3 has been amended as follows.

3 The righting test is to be carried out by the same team of persons required for the boarding test similarly clothed and wearing lifejackets and after completing the swim required in **1.2.8**. At least one of the persons righting the inflatable liferaft is to weigh less than ~~75~~82.5 *kg*. Each person is to attempt to right the liferaft unaided. The water is to be of sufficient depth to give no external assistance to the swimmers when mounting the inverted liferaft;

Paragraph 1.2.20 has been amended as follows.

1.2.20 Additional Tests for Davit Launched Liferafts

(Sub-paragraphs -1 to -3 are omitted)

4 Boarding Test [5.16.4]

A davit-launched liferaft is, in addition to the boarding test prescribed in **1.2.8**, to be subjected to the following test. The liferaft is to be suspended from a liferaft launching appliance, or from a crane with a head sheave of similar height, and bowsed in to the ship's side or simulated ship's side. The liferaft is to be boarded by the number of persons for which it is to be approved of average mass ~~75~~82.5 *kg*. There is to be no undue distortion of the liferaft. The bowsing is then to be released and the liferaft left hanging for 5 *min*. It is then to be lowered to the sea or floor and unloaded. At least three tests are required in succession, with the hook of the lowering appliance so positioned that its distance from the ship's side is:

(1) half the beam of the liferaft +150 *mm*;
(2) half the beam of the liferaft; and
(3) half the beam of the liferaft -150 *mm*.

The boarding, which is intended to simulate actual shipboard conditions, is to be timed and the time recorded.

5 Strength Test [5.17.10～5.17.12]

(1) Overload Test at Normal Room Temperature

It is to be demonstrated by an overload test on the liferaft hanging from its centre support that the bridle system has an adequate factor of safety as follows:

((a) to (c) are omitted)

(d) the liferaft is then to be lowered and loaded with a distributed mass equivalent to four times the mass of the number of persons for which it is to be approved and its equipment, the mass of each person being taken as ~~75~~82.5 *kg*;

((e) to (g) are omitted)

(2) (omitted)

(3) Lowering Test at Ship's Side

The inflatable liferaft is to be loaded with a weight equal to the mass of its heaviest equipment pack and the number of persons for which it is to be approved, the mass of each person being taken as ~~75~~82.5 *kg*. Except for the floor which is not to be inflated, the inflatable liferaft is to be fully inflated with all relief valves operative. A liferaft is to be lowered for a distance of at least 4.5 *min* continuous contact against a structure erected to represent the side of a ship having a 20° adverse list. During the test and after its completion, the liferaft is not to sustain damage or distortion, or assume a position which would render it unsuitable for its intended purpose.

Chapter 2 PROCEDURES FOR PRODUCTION TESTS OF INFLATABLE LIFERAFTS

2.1 Strength and Performance Tests

Paragraph 2.1.3 has been amended as follows.

2.1.3 10% Overload Test of Davit Launched Liferafts [5.2]

((1) to (3) are omitted)

(4) the 10% overload is to be 10% of the mass of the liferaft together with its full equipment and complement of persons calculated at ~~75~~82.5 *kg* per person;

((5) and (6) are omitted)

Annex 4 PROCEDURES FOR PROTOTYPE TESTS FOR TYPE APPROVAL AND PRODUCTION TESTS OF LAUNCHING APPLIANCES OF LIFEBOATS, RESCUE BOATS AND LIFERAFTS

Chapter 1 PROCEDURES FOR PROTOTYPE TESTS FOR TYPE APPROVAL OF LAUNCHING APPLIANCES

1.1 Strength and Performance Tests

1.1.1 Terminology

The terminologies used in **1.1** and **2.1** of this **Annex 4** are as follows:

(1) The maximum working load (L_{max}) of a launching appliance means the maximum load by the total mass of the following with regard to the lifeboat, rescue boat and liferaft hoisted and lowered by the launching appliance:

Sub-paragraph (c) has been amended as follows.

(c) mass of the number of persons (75 *kg* for a lifeboat intended for a passenger ship ~~and a liferaft~~ or 82.5*kg* for a lifeboat intended for a cargo ship, a liferaft and a rescue boat per person) for which the lifeboat, rescue boat or liferaft is to be approved.

Sub-paragraph (3) has been amended as follows.

(3) The maximum hoisting load (L_{lift}) of a launching appliance means the maximum load by the mass of **(1)(a)** and **(b)** above with the following for the lifeboat, rescue boat or liferaft hoisted and lowered by the launching appliance. For the lifeboat or liferaft, the mass of two lifeboat or liferaft crew (75 *kg* for a lifeboat intended for a passenger ship ~~and a liferaft~~ or 82.5 *kg* for a lifeboat intended for a cargo ship and for a liferaft per person) is to be added for hoisting the lifeboat or liferaft. For the rescue boat, the mass of six rescue boat crew (82.5 *kg* per person) is to be added for hoisting the rescue boat.

EFFECTIVE DATE AND APPLICATION (Amendment 2-2)

1. The effective date of the amendments is 1 January 2012.

2. Notwithstanding the amendments to the Guidance, the current requirements may apply to life-saving appliances installed on ships before the effective date or 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.