

## II

(Non-legislative acts)

## DIRECTIVES

**COMMISSION DIRECTIVE 2010/68/EU**  
**of 22 October 2010**  
**amending Council Directive 96/98/EC on marine equipment**  
**(Text with EEA relevance)**

THE EUROPEAN COMMISSION,

HAS ADOPTED THIS DIRECTIVE:

Having regard to the Treaty on the Functioning of the European Union,

*Article 1*

Having regard to Council Directive 96/98/EC of 20 December 1996 on marine equipment <sup>(1)</sup> and in particular Article 17 thereof,

Annex A to Directive 96/98/EC is replaced by the text in Annex to this Directive.

Whereas:

*Article 2*

- (1) For the purposes of Directive 96/98/EC, the international conventions and testing standards should apply in their up-to-date versions.
- (2) As amendments to the international conventions and applicable testing standards have entered into force since 6 April 2009, date on which Directive 96/98/EC was amended for the last time, these amendments should be incorporated into that Directive in the interests of clarity.
- (3) The International Maritime Organisation and the European standardisation organisations have adopted standards, including detailed testing standards, for a number of items of equipment which are listed in Annex A.2 to Directive 96/98/EC or which, albeit not listed, are considered relevant for the purpose of the said Directive. Therefore such items of equipment should be included in Annex A.1 or transferred from Annex A.2 to Annex A.1, as appropriate.
- (4) Directive 96/98/EC should therefore be amended accordingly.
- (5) The measures provided for in this Directive are in accordance with the opinion of the Committee on Safe Seas and the Prevention of Pollution from Ships (COSS),

Where equipment listed as 'new item' in column 1 of Annex A.1 or as having been transferred from Annex A.2 to Annex A.1 was manufactured before the date referred to in Article 3(1) in accordance with procedures for type-approval already in force before that date within the territory of a Member State, such equipment may be placed on the market and on board a Community ship during the two years following the said date.

*Article 3*

1. Member States shall adopt and publish, by 10 December 2011 at the latest, the laws, regulations and administrative provisions necessary to comply with this Directive. They shall forthwith communicate to the Commission the text of those provisions and a correlation table between those provisions and this Directive.

They shall apply those provisions from 10 December 2011.

When Member States adopt those provisions, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.

<sup>(1)</sup> OJ L 46, 17.2.1997, p. 25.

2. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.

*Article 4*

This Directive shall enter into force on the 20th day following its publication in the *Official Journal of the European Union*.

*Article 5*

This Directive is addressed to the Member States.

Done at Brussels, 22 October 2010.

*For the Commission*  
*The President*  
José Manuel BARROSO

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## ANNEX

## ‘ANNEX A

**List of acronyms used**

- A.1, Amendment 1 concerning Standard Documents other than IMO.
- A.2, Amendment 2 concerning Standard Documents other than IMO.
- AC, Amending Corrigendum concerning Standard Documents other than IMO.
- CAT, Category for radar equipment as defined in section 1.3 of IEC 62388 (2007).
- Circ., Circular.
- COLREG, International Regulations for Preventing Collisions at Sea.
- COMSAR, IMO's Sub-Committee on Radiocommunications and Search and Rescue.
- EN, European Standard.
- ETSI, European Telecommunication Standardisation Institute.
- FSS, International Code for Fire Safety Systems.
- FTP, International Code for Application of Fire Test Procedures.
- HSC, High Speed Craft Code.
- IBC, International Bulk Chemical Code.
- ICAO, International Civil Aviation Organisation.
- IEC, International Electro-technical Commission.
- IMO, International Maritime Organisation.
- ISO, International Standardisation Organisation.
- ITU, International Telecommunication Union.
- LSA, Life saving appliance.
- MARPOL, International Convention for the Prevention of Pollution from Ships.
- MEPC, Marine Environment Protection Committee.
- MSC, Maritime Safety Committee.
- NO<sub>x</sub>, Nitrogen Oxides.
- SOLAS, International Convention for the Safety of Life at Sea.
- SO<sub>x</sub>, Sulphur Oxides.
- Reg., Regulation.
- Res., Resolution.
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## ANNEX A.1

**EQUIPMENT FOR WHICH DETAILED TESTING STANDARDS ALREADY EXIST IN INTERNATIONAL INSTRUMENTS****Notes applicable to the whole of Annex A.1**

- (a) General: in addition to the testing standards specifically mentioned, a number of provisions, which must be checked during type-examination (type approval) as referred to in the modules for conformity assessment in Annex B, are to be found in the applicable requirements of the international conventions and the relevant resolutions and circulars of the IMO.
- (b) Column 1: Article 2 of Commission directive 2009/26/EC <sup>(1)</sup> may apply.
- (c) Column 5: Where IMO Resolutions are cited, only the testing standards contained in relevant parts of the Annexes to the Resolutions are applicable and exclude the provisions of the Resolutions themselves.
- (d) Column 5: International conventions and testing standards apply in their up-to-date version. For the purpose of identifying correctly the relevant standards, test reports, certificates of conformity and declarations of conformity shall identify the specific testing standard applied and its version.
- (e) Column 5: Where two sets of identifying standards are separated by “or”, each set fulfils all the testing requirements to meet IMO Performance Standards; thus testing to one of these sets is sufficient to demonstrate compliance with the requirements of the relevant International Instruments. Conversely, when other separators (comma) are used all the listed references apply.
- (f) Column 6: Where module H appears, module H plus design-examination certificate is to be understood.
- (g) The requirements laid down in this Annex shall be without prejudice to carriage requirements in the international conventions.

**1. Life-saving appliances**

Notes applicable to section 1: Life saving appliances.

Column 4: IMO MSC/Circular 980 should apply except when superseded by the specific instruments referred to in Column 4.

No	Item designation	Regulation SOLAS 74 where “type approval” is required	Regulations of SOLAS 74 and the relevant resolutions and circulars of the IMO, as applicable	Testing standards	Modules for conformity assessment
1	2	3	4	5	6
A.1/1.1	Lifebuoys	— Reg. III/4, — Reg. X/3.	— Reg. III/7, — Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, — IMO Res. MSC.48(66)-(LSA Code) I, II, — IMO Res. MSC.97(73)-(2000 HSC Code) 8.	— IMO Res. MSC.81(70).	B+D B+E B+F
A.1/1.2	Position-indicating lights for life-saving appliances: (a) for survival craft and rescue boats, (b) for lifebuoys, (c) for lifejackets.	— Reg. III/4, — Reg. X/3.	— Reg. III/7, — Reg. III/22, — Reg. III/26, — Reg. III/32, — Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, — IMO Res. MSC.48(66)-(LSA Code) II, IV, — IMO Res. MSC.97(73)-(2000 HSC Code) 8.	— IMO Res. MSC.81(70)	B+D B+E B+F

<sup>(1)</sup> OJ L 113, 6.5.2009, p. 1.

1	2	3	4	5	6
A.1/1.3	Lifebuoys self-activating smoke signals	— Reg. III/4, — Reg. X/3.	— Reg. III/7, — Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, — IMO Res. MSC.48(66)-(LSA Code) I, II, — IMO Res. MSC.97(73)-(2000 HSC Code) 8.	— IMO Res. MSC.81(70).	B + D B + E B + F
A.1/1.4	Lifejackets	— Reg. III/4, — Reg. X/3.	— Reg. III/7, — Reg. III/22, — Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, — IMO Res. MSC.48(66)-(LSA Code) I, II, — IMO Res. MSC.97(73)-(2000 HSC Code) 8, — IMO MSC/Circ.922.	— IMO Res. MSC.81(70).	B + D B + E B + F
A.1/1.5	Immersion suits and anti-exposure suits not classified as life-jackets: — Insulated or not insulated.	— Reg. III/4, — Reg. X/3.	— Reg. III/7, — Reg. III/22, — Reg. III/32, — Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, — IMO Res. MSC.48(66)-(LSA Code) I, II, — IMO Res. MSC.97(73)-(2000 HSC Code) 8.	— IMO Res. MSC.81(70).	B + D B + E B + F
A.1/1.6	Immersion suits and anti-exposure suits classified as lifejackets: — Insulated or non-insulated.	— Reg. III/4, — Reg. X/3.	— Reg. III/7, — Reg. III/22, — Reg. III/32, — Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, — IMO Res. MSC.48(66)-(LSA Code) I, II, — IMO Res. MSC.97(73)-(2000 HSC Code) 8.	— IMO Res. MSC.81(70).	B + D B + E B + F
A.1/1.7	Thermal protective aids	— Reg. III/4, — Reg. X/3	— Reg. III/22, — Reg. III/32, — Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, — IMO Res. MSC.48(66)-(LSA Code) I, II, — IMO Res. MSC.97(73)-(2000 HSC Code) 8.	— IMO Res. MSC.81(70).	B + D B + E B + F

1	2	3	4	5	6
A.1/1.8	Rocket parachute flares (pyrotechnics)	— Reg. III/4, — Reg. X/3.	— Reg. III/6, — Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, — IMO Res. MSC.48(66)-(LSA Code) I, III, — IMO Res. MSC.97(73)-(2000 HSC Code) 8.	— IMO Res. MSC.81(70).	B + D B + E B + F
A.1/1.9	Hand flares (pyrotechnics)	— Reg. III/4, — Reg. X/3.	— Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, — IMO Res. MSC.48(66)-(LSA Code) I, III, — IMO Res. MSC.97(73)-(2000 HSC Code) 8.	— IMO Res. MSC.81(70).	B + D B + E B + F
A.1/1.10	Buoyant smoke signals (pyrotechnics)	— Reg. III/4, — Reg. X/3.	— Reg. III/34, — IMO Res. MSC.48(66)-(LSA Code) I, III.	— IMO Res. MSC.81(70).	B + D B + E B + F
A.1/1.11	Line-throwing appliances	— Reg. III/4, — Reg. X/3.	— Reg. III/18, — Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, — IMO Res. MSC.48(66)-(LSA Code) I, VII, — IMO Res. MSC.97(73)-(2000 HSC Code) 8.	— IMO Res. MSC.81(70).	B + D B + E B + F
A.1/1.12	Inflatable liferafts	— Reg. III/4, — Reg. X/3.	— Reg. III/13, — Reg. III/21, — Reg. III/26, — Reg. III/31, — Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, — IMO Res. MSC.48(66)-(LSA Code) I, IV, — IMO Res. MSC.97(73)-(2000 HSC Code) 8, — IMO MSC/Circ.811.	— IMO Res. MSC.81(70).	B + D B + E B + F
A.1/1.13	Rigid liferafts	— Reg. III/4, — Reg. X/3.	— Reg. III/21, — Reg. III/26, — Reg. III/31, — Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, — IMO Res. MSC.48(66)-(LSA Code) I, IV, — IMO Res. MSC.97(73)-(2000 HSC Code) 8, — IMO MSC/Circ.811.	— IMO Res. MSC.81(70), — IMO MSC/Circ.1006.	B + D B + E B + F

1	2	3	4	5	6
A.1/1.14	Automatically self-righting liferafts	— Reg. III/4, — Reg. X/3.	— Reg. III/26, — Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, — IMO Res. MSC.48(66)-(LSA Code) I, IV, — IMO Res. MSC.97(73)-(2000 HSC Code) 8, — IMO MSC/Circ.809 including Add.1, — IMO MSC/Circ.811.	— IMO Res. MSC.81(70), — IMO MSC/Circ.809 including Add.1.	B + D B + E B + F
A.1/1.15	Canopied reversible liferafts	— Reg. III/4, — Reg. X/3.	— Reg. III/26, — Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, — IMO Res. MSC.48(66)-(LSA Code) I, IV, — IMO Res. MSC.97(73)-(2000 HSC Code) 8, — IMO MSC/Circ.809 including Add.1, — IMO MSC/Circ.811.	— IMO Res. MSC.81(70), — IMO MSC/Circ.809 including Add.1.	B + D B + E B + F
A.1/1.16	Float-free arrangements for liferafts (hydrostatic release units)	— Reg. III/4, — Reg. X/3.	— Reg. III/13, — Reg. III/26, — Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, — IMO Res. MSC.48(66)-(LSA Code) I, IV, — IMO Res. MSC.97(73)-(2000 HSC Code) 8, — IMO MSC/Circ.811.	— IMO Res. MSC.81(70).	B + D B + E B + F
A.1/1.17	Lifeboats	— Reg. III/4, — Reg. X/3.	— Reg. III/21, — Reg. III/31, — Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, — IMO Res. MSC.48(66)-(LSA Code) I, IV, — IMO Res. MSC.97(73)-(2000 HSC Code) 8.	— IMO Res. MSC.81(70), — IMO MSC/Circ.1006.	B + D B + F G
A.1/1.18	Rigid rescue boats	— Reg. III/4, — Reg. X/3.	— Reg. III/21, — Reg. III/31, — Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, — IMO Res. MSC.48(66)-(LSA Code) I, V, — IMO Res. MSC.97(73)-(2000 HSC Code) 8.	— IMO Res. MSC.81(70), — IMO MSC/Circ.1006.	B + D B + F G

1	2	3	4	5	6
A.1/1.19	Inflated rescue boats	— Reg. III/4, — Reg. X/3.	— Reg. III/21, — Reg. III/31, — Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, — IMO Res. MSC.48(66)-(LSA Code) I, V, — IMO Res. MSC.97(73)-(2000 HSC Code) 8.	— IMO Res. MSC.81(70), — ISO 15372 (2000).	B + D B + F G
A.1/1.20	Fast rescue boats	— Reg. III/4.	— Reg. III/26, — Reg. III/34, — IMO Res. MSC.48(66)-(LSA Code) I, V, — IMO MSC/Circ.809 including Add.1, — IMO MSC/Circ.1016, — IMO MSC/Circ.1094.	— IMO Res. MSC.81(70), — IMO MSC/Circ.1006, — ISO 15372 (2000).	B + D B + F G
A.1/1.21	Launching appliances using falls (Davits)	— Reg. III/4, — Reg. X/3.	— Reg. III/23, — Reg. III/33, — Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, — IMO Res. MSC.48(66)-(LSA Code) I, VI, — IMO Res. MSC.97(73)-(2000 HSC Code) 8.	— IMO Res. MSC.81(70).	B + D B + E B + F G
A.1/1.22	Float free launching appliances for survival craft	Moved to A.2/1.3			
A.1/1.23	Launching appliances for free-fall lifeboats	— Reg. III/4, — Reg. X/3.	— Reg. III/16, — Reg. III/23, — Reg. III/33, — Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, — IMO Res. MSC.48(66)-(LSA Code) I, VI, — IMO Res. MSC.97(73)-(2000 HSC Code) 8.	— IMO Res. MSC.81(70).	B + D B + E B + F G
A.1/1.24	Liferaft launching appliances (Davits)	— Reg. III/4, — Reg. X/3.	— Reg. III/12, — Reg. III/16, — Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, — IMO Res. MSC.48(66)-(LSA Code) I, VI, — IMO Res. MSC.97(73)-(2000 HSC Code) 8.	— IMO Res. MSC.81(70).	B + D B + E B + F G



1	2	3	4	5	6	
A.1/1.25	Fast rescue boat launching appliances (Davits)	— Reg. III/4.	— Reg. III/26, — Reg. III/34, — IMO Res. MSC.48(66)-(LSA Code) I, VI, — IMO MSC/Circ.809 including Add.1.	— IMO Res. MSC.81(70).	B + D B + E B + F G	
A.1/1.26	Release mechanism for (a) Lifeboats and rescue boats and (b) Liferafts Launched by a fall or falls	— Reg. III/4, — Reg. X/3.	— Reg. III/16, — Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, — IMO Res. MSC.48(66)-(LSA Code) I, IV, VI, — IMO Res. MSC.97(73)-(2000 HSC Code) 8.	— IMO Res. MSC.81(70).	B + D B + E B + F	
A.1/1.27	Marine evacuation systems	— Reg. III/4, — Reg. X/3.	— Reg. III/15, — Reg. III/26, — Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, — IMO Res. MSC.48(66)-(LSA Code) I, VI, — IMO Res. MSC.97(73)-(2000 HSC Code) 8.	— IMO Res. MSC.81(70).	B + F G	
A.1/1.28	Means of rescue	— Reg. III/4, — Reg. X/3.	— Reg. III/26, — Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, — IMO Res. MSC.48(66)-(LSA Code) I, VI, — IMO Res. MSC.97(73)-(2000 HSC Code) 8.	— IMO Res. MSC.81(70), — IMO MSC/Circ.810.	B + D B + F	
A.1/1.29 Refer to note (b) of this Annex A.1	Embarkation ladders	— Reg. III/4, — Reg. III/11, — Reg. X/3.	— Reg. III/11, — Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code), — IMO Res. MSC.48(66)-(LSA Code), — IMO Res. MSC.97(73)-(2000 HSC Code).	— IMO Res. MSC.81(70), — ISO 5489 (2008).	B + D B + F	
A.1/1.30	Retro-reflective materials	— Reg. III/4, — Reg. X/3.	— Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, — IMO Res. MSC.48(66)-(LSA Code) I, — IMO Res. MSC.97(73)-(2000 HSC Code) 8.	— IMO Res. A.658(16).	B + D B + E B + F	
A.1/1.31	Survival craft two-way VHF radio telephone apparatus	Moved to A.1/5.17 and A.1/5.18				

1	2	3	4	5	6
A.1/1.32	9 GHz SAR transponder (SART)	Moved to A.1/4.18			
A.1/1.33	Radar reflector for lifeboats and rescue boats	— Reg. III/4, — Reg. X/3.	— Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, — IMO Res. MSC.48(66)-(LSA Code) I, IV, V, — IMO Res. MSC.97(73)-(2000 HSC Code) 8, — IMO Res. MSC.164(78).	— EN ISO 8729 (1998).	B + D B + E B + F
A.1/1.34	Compass for lifeboats and rescue boats	Moved to A.1/4.23			
A.1/1.35	Portable fire-extinguishing equipment for lifeboats and rescue boats	Moved to A.1/3.38			
A.1/1.36	Lifeboat/rescue boat propulsion engine	— Reg. III/4, — Reg. X/3.	— Reg. III/34, — IMO Res. MSC.48(66)-(LSA Code) IV, V.	— IMO Res. MSC.81(70).	B + D B + E B + F
A.1/1.37	Rescue boat propulsion engine-outboard motor	— Reg. III/4, — Reg. X/3.	— Reg. III/34, — IMO Res. MSC.48(66)-(LSA Code) V.	— IMO Res. MSC.81(70).	B + D B + E B + F
A.1/1.38	Searchlights for use in lifeboats and rescue boats	— Reg. III/4, — Reg. X/3.	— Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, — IMO Res. MSC.48(66)-(LSA Code) I, IV, V, — IMO Res. MSC.97(73)-(2000 HSC Code) 8.	— IMO Res. MSC.81(70).	B + D B + E B + F
A.1/1.39	Open reversible liferafts	— Reg. III/4, — Reg. X/3.	— IMO Res. MSC.36(63)-(1994 HSC Code) 8, Annex 10, — IMO Res. MSC.48(66)-(LSA Code) I, — IMO Res. MSC.97(73)-(2000 HSC Code) 8, Annex 11.	— IMO Res. MSC.36(63)-(1994 HSC Code) Annex 10, — IMO Res. MSC.97(73)-(2000 HSC Code) Annex 11.	B + D B + F
A.1/1.40	Mechanical pilot hoist	Moved to A.1/4.48			
A.1/1.41	Winches for survival craft and rescue boats	— Reg. III/4, — Reg. X/3.	— Reg. III/16, — Reg. III/17, — Reg. III/23, — Reg. III/24, — Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, — IMO Res. MSC.48(66)-(LSA Code) I, VI, — IMO Res. MSC.97(73)-(2000 HSC Code) 8.	— IMO Res. MSC.81(70).	B + D B + E B + F G

1	2	3	4	5	6
A.1/1.42	Pilot ladder	Moved to A.1/4.49			
A.1/1.43 New item	Rigid/inflated rescue boats	— Reg. III/4, — Reg. X/3.	— Reg. III/21, — Reg. III/31, — Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, — IMO Res. MSC.48(66)-(LSA Code) I, V, — IMO Res. MSC.97(73)-(2000 HSC Code) 8.	— IMO Res. MSC.81(70), — IMO MSC/Circ.1006. — ISO 15372 (2000)	B + D B + F G

## 2. Marine pollution prevention

No	Item designation	Regulation MARPOL 73/78 where "type approval" is required	Regulations of MARPOL 73/78 and the relevant resolutions and circulars of the IMO, as applicable	Testing standards	Modules for conformity assessment
1	2	3	4	5	6
A.1/2.1	Oil-filtering equipment (for an oil content of the effluent not exceeding 15 p.p.m.)	— Annex I, Reg. 14.	— Annex I, Reg. 14, — IMO MEPC.1/Circ.643.	— IMO Res. MEPC.107(49), — IMO MEPC.1/Circ.643.	B + D B + E B + F
A.1/2.2	Oil/water interface detectors	— Annex I, Reg. 32.	— Annex I, Reg. 32.	— IMO Res. MEPC.5(XIII).	B + D B + E B + F
A.1/2.3	Oil-content meters	— Annex I, Reg. 14.	— Annex I, Reg. 14, — IMO MEPC.1/Circ.643.	— IMO Res. MEPC.107(49), — IMO MEPC.1/Circ.643.	B + D B + E B + F
A.1/2.4	Process units intended for attachment to existing oily water separating equipment (for an oil content of the effluent not exceeding 15 p.p.m.)	Deliberately left blank			
A.1/2.5	Oil discharge monitoring and control system for oil tankers	— Annex I, Reg. 31.	— Annex I, Reg. 31.	— IMO Res. MEPC.108(49).	B + D B + E B + F
A.1/2.6	Sewage systems	— Annex IV, Reg. 9.	— Annex IV, Reg. 9.	— IMO Res. MEPC.159(55).	B + D B + E B + F
A.1/2.7	Shipboard incinerators	— Annex VI, Reg. 16.	— Annex VI, Reg. 16.	— IMO Res. MEPC.76(40).	B + D B + E B + F G

1	2	3	4	5	6
A.1/2.8 Refer to note (b) of this Annex A.1	On board NO <sub>x</sub> monitoring and recording devices	— Annex VI, Reg. 13,  — NO <sub>x</sub> Technical Code,  — IMO Res. MEPC.177(58).	— Annex VI, Reg. 13,  — NO <sub>x</sub> Technical Code,  — IMO Res. MEPC.177(58),  — IMO MEPC.1/Circ.638.	— IMO Res. MEPC.103(49),  — IMO Res. MEPC.177(58).	B + D  B + E  B + F  G
A.1/2.9 Refer to note (b) of this Annex A.1	Other technological methods to limit SO <sub>x</sub> emissions	— Annex VI, Reg. 14.	— Annex VI, Reg. 14.	— IMO Res. MEPC.170(57)	B + D  B + E  B + F  G

### 3. Fire protection equipment

No	Item designation	Regulation SOLAS 74 where "type approval" is required	Regulations of SOLAS 74 and the relevant resolutions and circulars of the IMO, as applicable	Testing standards	Modules for conformity assessment
1	2	3	4	5	6
A.1/3.1	Primary decks covering	— Reg. II-2/4,  — Reg. II-2/6,  — Reg. X/3.	— Reg. II-2/4,  — Reg. II-2/6,  — IMO Res. MSC.36(63)-(1994 HSC Code) 7,  — IMO Res. MSC.97(73)-(2000 HSC Code) 7.	— IMO Res. MSC.61(67)-(FTP Code), Annex 1 Part 2 and Part 6 or Annex 2,  — IMO MSC/Circ.1102,  — IMO MSC/Circ.1120.	B + D  B + E  B + F
A.1/3.2	Portable fire extinguishers	— Reg. II-2/10,  — Reg. X/3,  — IMO Res. MSC.98(73)-(FSS Code) 4.	— Reg. II-2/4,  — Reg. II-2/10,  — Reg. II-2/19,  — Reg. II-2/20,  — IMO Res. A.951(23),  — IMO Res. MSC.36(63)-(1994 HSC Code) 7,  — IMO Res. MSC.97(73)-(2000 HSC Code) 7,  — IMO Res. MSC.98(73)-(FSS Code) 4,  — IMO MSC/Circ.1239,  — IMO MSC/Circ.1275.	— EN 3-6 (1995) including A.1 (1999),  — EN 3-7 (2004) including A.1 (2007),  — EN 3-8 (2006) including AC (2007),  — EN 3-9 (2006) including AC (2007).	B + D  B + E  B + F

1	2	3	4	5	6
A.1/3.3	Fire-fighter's outfit: protective clothing (close proximity clothing)	<ul style="list-style-type: none"> <li>— Reg. II-2/10,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.98(73)-(FSS Code) 3.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. II-2/10,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 7,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 7,</li> <li>— IMO Res. MSC.98(73)-(FSS Code) 3.</li> </ul>	<p>Protective clothing for fire fighting:</p> <ul style="list-style-type: none"> <li>— EN 469 (2005) including A1 (2006) and AC (2006)</li> </ul> <p>Protective clothing for fire fighting — Reflective clothing for specialised fire-fighting:</p> <ul style="list-style-type: none"> <li>— EN 1486 (2007).</li> </ul> <p>Protective clothing for fire fighting — Protective clothing with a reflective outer surface:</p> <ul style="list-style-type: none"> <li>— ISO 15538 (2001).</li> </ul>	<p>B + D</p> <p>B + E</p> <p>B + F</p>
A.1/3.4	Fire-fighter's outfit: boots	<ul style="list-style-type: none"> <li>— Reg. II-2/10,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.98(73)-(FSS Code) 3.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. II-2/10,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 7,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 7,</li> <li>— IMO Res. MSC.98(73)-(FSS Code) 3.</li> </ul>	<ul style="list-style-type: none"> <li>— EN ISO 20344 (2004) including A1 (2007) and AC (2005),</li> <li>— EN ISO 20345 (2004) including A1 (2007) and AC (2007).</li> </ul>	<p>B + D</p> <p>B + E</p> <p>B + F</p>
A.1/3.5	Fire-fighter's outfit: gloves	<ul style="list-style-type: none"> <li>— Reg. II-2/10,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.98(73)-(FSS Code) 3.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. II-2/10,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 7,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 7,</li> <li>— IMO Res. MSC.98(73)-(FSS Code) 3.</li> </ul>	<ul style="list-style-type: none"> <li>— EN 659 (2003) including A1 (2008).</li> </ul>	<p>B + D</p> <p>B + E</p> <p>B + F</p>
A.1/3.6	Fire-fighter's outfit: helmet	<ul style="list-style-type: none"> <li>— Reg. II-2/10,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.98(73)-(FSS Code) 3.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. II-2/10,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 7,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 7,</li> <li>— IMO Res. MSC.98(73)-(FSS Code) 3.</li> </ul>	<ul style="list-style-type: none"> <li>— EN 443 (2008).</li> </ul>	<p>B + D</p> <p>B + E</p> <p>B + F</p>
A.1/3.7	Self-contained compressed-air-operated breathing apparatus  <i>Note:</i> For use in accidents involving dangerous goods a positive pressure type mask is required.	<ul style="list-style-type: none"> <li>— Reg. II-2/10,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.98(73)-(FSS Code) 3.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. II-2/10,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 7,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 7,</li> <li>— IMO Res. MSC.98(73)-(FSS Code) 3.</li> </ul>	<ul style="list-style-type: none"> <li>— EN 136 (1998) including AC (2003),</li> <li>— EN 137 (2006).</li> </ul>	<p>B + D</p> <p>B + E</p> <p>B + F</p>

1	2	3	4	5	6
A.1/3.8	Compressed air line breathing apparatus	<ul style="list-style-type: none"> <li>— Reg. X/3.</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 7.</li> </ul> <p>Note: This equipment is only for high speed craft built under provisions of the 1994 HSC Code.</p>	<ul style="list-style-type: none"> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 7.</li> </ul>	<ul style="list-style-type: none"> <li>— EN 14593-1 (2005),</li> <li>— EN 14593-2 (2005) including AC (2005),</li> <li>— EN 14594 (2005).</li> </ul>	<p>B + D</p> <p>B + E</p> <p>B + F</p>
A.1/3.9	<p>Sprinkler systems components for accommodation spaces, service spaces and control stations equivalent to that referred to in SOLAS 74 Reg. II-2/12 (limited to nozzles and their performance).</p> <p>(Nozzles for fixed sprinkler systems, for high speed craft (HSC) are included under this item)</p>	<ul style="list-style-type: none"> <li>— Reg. II-2/7,</li> <li>— Reg. II-2/10,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.98(73)-(FSS Code) 8.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. II-2/7,</li> <li>— Reg. II-2/9,</li> <li>— Reg. II-2/10,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 7,</li> <li>— IMO Res. MSC.44(65),</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 7,</li> <li>— IMO Res. MSC.98(73)-(FSS Code) 8.</li> <li>— IMO MSC/Circ.912.</li> </ul>	<ul style="list-style-type: none"> <li>— IMO Res. A.800(19).</li> </ul>	<p>B + D</p> <p>B + E</p> <p>B + F</p>
<p>A.1/3.10</p> <p>Refer to note (b) of this Annex A.1</p>	Nozzles for fixed pressure water spraying fire extinguishing systems for machinery spaces and cargo pump-rooms	<ul style="list-style-type: none"> <li>— Reg. II-2/10,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.98(73)-(FSS Code) 7.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. II-2/10,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 7,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 7,</li> <li>— IMO Res. MSC.98(73)-(FSS Code) 7.</li> </ul>	<ul style="list-style-type: none"> <li>— IMO MSC/Circ.1165, Appendix A.</li> </ul>	<p>B + D</p> <p>B + E</p> <p>B + F</p>
A.1/3.11	<p>“A” and “B” Class divisions fire integrity</p> <p>(a) “A” class divisions,</p> <p>(b) “B” class divisions.</p>	<p>“A” Class:</p> <ul style="list-style-type: none"> <li>— Reg. II-2/3.2.</li> </ul> <p>“B” Class:</p> <ul style="list-style-type: none"> <li>— Reg. II-2/3.4.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. II-2/9, and,</li> </ul> <p>“A” Class:</p> <ul style="list-style-type: none"> <li>— Reg. II-2/3.2.</li> </ul> <p>“B” Class:</p> <ul style="list-style-type: none"> <li>— Reg. II-2/3.4.</li> </ul>	<ul style="list-style-type: none"> <li>— IMO Res. MSC.61(67)-(FTP Code) Annex 1 Part 3 and Annex 2,</li> <li>— IMO MSC/Circ.1120.</li> </ul>	<p>B + D</p> <p>B + E</p> <p>B + F</p>
A.1/3.12	Devices to prevent the passage of flame into the cargo tanks in tankers	<ul style="list-style-type: none"> <li>— Reg. II-2/4,</li> <li>— Reg. II-2/16.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. II-2/4,</li> <li>— Reg. II-2/16.</li> </ul>	<ul style="list-style-type: none"> <li>— EN 12874 (2001),</li> <li>— ISO 15364 (2007),</li> <li>— IMO MSC/Circ.677.</li> </ul>	<p>B + F</p>

1	2	3	4	5	6
A.1/3.13	Non-combustible materials	— Reg. II-2/3, — Reg. X/3.	— Reg. II-2/3, — Reg. II-2/5, — Reg. II-2/9, — IMO Res. MSC.36(63)-(1994 HSC Code) 7, — IMO Res. MSC.97(73)-(2000 HSC Code) 7.	— IMO Res. MSC.61(67)-(FTP Code) Annex 1 Part 1, — IMO MSC/Circ.1120.	B + D B + E B + F
A.1/3.14	Materials other than steel for pipes penetrating "A" or "B" Class division	Item included in A.1/3.26 and A.1/3.27			
A.1/3.15	Materials other than steel for pipes conveying oil or fuel oil (a) pipes and fittings, (b) valves, (c) flexible pipe assemblies.	— Reg. II-2/4, — Reg. X/3.	— Reg. II-2/4, — IMO Res. MSC.36(63)-(1994 HSC Code) 7, 10, — IMO Res. MSC.97(73)-(2000 HSC Code) 7, 10, — IMO MSC/Circ.1120.	— IMO Res. A.753(18), — ISO 15540 (1999) including Corrigendum 1 (1999), — ISO 15541 (1999).	B + D B + E B + F
A.1/3.16	Fire Doors	— Reg. II-2/9.	— Reg. II-2/9.	— IMO Res. MSC.61(67)-(FTP Code) Annex 1 Part 3, — IMO MSC/Circ.1120, — IMO MSC.1/Circ.1273.	B + D B + E B + F
A.1/3.17	Fire door control systems components. <i>Note:</i> When the term "system components" is used in column 2 it may be that a single component, a group of components or a whole system needs to be tested to ensure that the international requirements are fulfilled.	— Reg. II-2/9, — Reg. X/3.	— Reg. II-2/9, — IMO Res. MSC.36(63)-(1994 HSC Code) 7, — IMO Res. MSC.97(73)-(2000 HSC Code) 7.	— IMO Res. MSC.61(67)-(FTP Code) Annex 1 Part 4.	B + D B + E B + F

1	2	3	4	5	6
A.1/3.18	Surface materials and floor coverings with low flame-spread characteristics (a) decorative veneers (b) paint systems, (c) floor coverings, (d) pipe insulation covers, (e) adhesives used in the construction of "A", "B" and "C" class divisions, (f) combustible ducts.	— Reg. II-2/3, — Reg. II-2/5, — Reg. II-2/6, — Reg. II-2/9, — Reg. X/3.	— Reg. II-2/3, — Reg. II-2/5, — Reg. II-2/6, — Reg. II-2/9, — IMO Res. MSC.36(63)-(1994 HSC Code) 7, — IMO Res. MSC.97(73)-(2000 HSC Code) 7, — IMO MSC/Circ.1120.	— IMO Res. MSC.61(67)-(FTP Code) Annex 1 Part 2 and Part 5, or Annex 2, — IMO MSC/Circ.1120, — ISO 1716 (2002).  <i>Note:</i> Where the surface material is required to have a certain maximum calorific value, this shall be measured in accordance with ISO 1716.	B + D B + E B + F
A.1/3.19	Draperies, curtains and other suspended textile materials and films	— Reg. II-2/3, — Reg. II-2/9, — Reg. X/3.	— Reg. II-2/3, — Reg. II-2/9, — IMO Res. MSC.36(63)-(1994 HSC Code) 7, — IMO Res. MSC.97(73)-(2000 HSC Code) 7.	— IMO Res. MSC.61(67)-(FTP Code) Annex 1 Part 7, — IMO MSC/Circ.1102, — IMO MSC/Circ.1120.	B + D B + E B + F
A.1/3.20	Upholstered furniture	— Reg. II-2/3, — Reg. II-2/5, — Reg. II-2/9, — Reg. X/3.	— Reg. II-2/3, — Reg. II-2/5, — Reg. II-2/9, — IMO Res. MSC.36(63)-(1994 HSC Code) 7, — IMO Res. MSC.97(73)-(2000 HSC Code) 7.	— IMO Res. MSC.61(67)-(FTP Code) Annex 1 Part 8, — IMO MSC/Circ.1102, — IMO MSC/Circ.1120.	B + D B + E B + F
A.1/3.21	Bedding components	— Reg. II-2/3, — Reg. II-2/9, — Reg. X/3.	— Reg. II-2/3, — Reg. II-2/9, — IMO Res. MSC.36(63)-(1994 HSC Code) 7, — IMO Res. MSC.97(73)-(2000 HSC Code) 7.	— IMO Res. MSC.61(67)-(FTP Code) Annex 1 Part 9, — IMO MSC/Circ.1102, — IMO MSC/Circ.1120.	B + D B + E B + F
A.1/3.22	Fire dampers	— Reg. II-2/9.	— Reg. II-2/9.	— IMO Res. MSC.61(67)-(FTP Code) Annex 1 Part 3, — IMO MSC/Circ.1120.	B + D B + E B + F
A.1/3.23	Non-combustible duct penetrations through "A" class divisions	Moved to A.1/3.26			



1	2	3	4	5	6
A.1/3.24	Electric Cable Transits through "A" class divisions	Moved to A.1/3.26			
A.1/3.25	"A" and "B" class fire proof windows and side scuttles	— Reg. II-2/9.	— Reg. II-2/9, — IMO MSC/Circ.847, — IMO MSC/Circ.1120.	— IMO Res. MSC.61(67)-(FTP Code) Annex 1 Part 3, — IMO MSC/Circ.1120, — IMO MSC.1/Circ.1203.	B + D B + E B + F
A.1/3.26	Penetrations through "A" class divisions (a) electric cable transits, (b) pipe, duct, trunk, etc penetrations.	— Reg. II-2/9.	— Reg. II-2/9, — IMO MSC.1/Circ.1276.	— IMO Res. MSC.61(67)-(FTP Code) Annex 1 Part 3, — IMO MSC/Circ.1120.	B + D B + E B + F
A.1/3.27	Penetrations through "B" class divisions (a) electric cable transits, (b) pipe, duct, trunk, etc penetrations.	— Reg. II-2/9.	— Reg. II-2/9.	— IMO Res. MSC.61(67)-(FTP Code) Annex 1 Part 3, — IMO MSC/Circ.1120.	B + D B + E B + F
A.1/3.28	Sprinkler systems (limited to sprinkler heads). (Nozzles for fixed sprinkler systems, for high speed craft (HSC) are included under this item)	— Reg. II-2/7, — Reg. II-2/10, — Reg. X/3.	— Reg. II-2/10, — IMO Res. MSC.36(63)-(1994 HSC Code) 7, — IMO Res. MSC.44(65), — IMO Res. MSC.97(73)-(2000 HSC Code) 7, — IMO Res. MSC.98(73)-(FSS Code) 8, — IMO MSC/Circ.912.	— ISO 6182-1 (2004), or — EN 12259-1 (1999) including A1 (2001), A2 (2004) and A3 (2006).	B + D B + E B + F
A.1/3.29	Fire hoses	— Reg. II-2/10, — Reg. X/3.	— Reg. II-2/10, — IMO Res. MSC.36(63)-(1994 HSC Code) 7, — IMO Res. MSC.97(73)-(2000 HSC Code) 7.	— EN 14540 (2004) including A.1 (2007).	B + D B + E B + F

1	2	3	4	5	6
A.1/3.30	Portable oxygen analysis and gas detection equipment	— Reg. II-2/4, — Reg. VI/3.	— Reg. II-2/4, — Reg. VI/3, — IMO Res. MSC.98(73)- (FSS Code) 15.	— EN 60945 (2002), — IEC 60092-504 (2001), — IEC 60533 (1999), and as applicable to:  (a) Category 1: (safe area): — EN 50104 (2002) including A.1 (2004) Oxygen, — EN 60079-29-1 (2007).  (b) Category 2: (explosive gas atmospheres): — EN 50104 (2002) including A.1 (2004) Oxygen, — EN 60079-29-1 (2007), — IEC 60079-0 (2007), — IEC 60079-1 (2007) — IEC 60079-10 (2002), — IEC 60079-11 (2006), — IEC 60079-15 (2005), — IEC 60079-26 (2006).	B + D B + E B + F
A.1/3.31	Nozzles for fixed sprinkler systems, for high speed craft (HSC)	Item deleted as it is covered by A.1/3.9 and A.1/3.28			
A.1/3.32	Fire restricting materials (except furniture) for high speed craft	— Reg. X/3.	— IMO Res. MSC.36(63)- (1994 HSC Code) 7, — IMO Res. MSC.97(73)- (2000 HSC Code) 7.	— IMO Res. MSC.61(67)-(FTP Code) Annex 1 Part 10.	B + D B + E B + F
A.1/3.33	Fire restricting materials for furniture for high speed craft	— Reg. X/3.	— IMO Res. MSC.36(63)- (1994 HSC Code) 7, — IMO Res. MSC.97(73)- (2000 HSC Code) 7.	— IMO Res. MSC.61(67)-(FTP Code) Annex 1 Part 10.	B + D B + E B + F
A.1/3.34	Fire resisting divisions for high speed craft	— Reg. X/3.	— IMO Res. MSC.36(63)- (1994 HSC Code) 7, — IMO Res. MSC.97(73)- (2000 HSC Code) 7.	— IMO Res. MSC.61(67)-(FTP Code) Annex 1 Part 11.	B + D B + E B + F
A.1/3.35	Fire doors on high speed craft	— Reg. X/3.	— IMO Res. MSC.36(63)-(1994 HSC Code) 7, — IMO Res. MSC.97(73)- (2000 HSC Code) 7.	— IMO Res. MSC.61(67)-(FTP Code) Annex 1 Part 11.	B + D B + E B + F
A.1/3.36	Fire dampers on high speed craft	— Reg. X/3.	— IMO Res. MSC.36(63)- (1994 HSC Code) 7, — IMO Res. MSC.97(73)- (2000 HSC Code) 7, — IMO MSC/Circ.1120.	— IMO Res. MSC.61(67)-(FTP Code) Annex 1 Part 11.	B + D B + E B + F

1	2	3	4	5	6
A.1/3.37	Penetrations through fire resisting divisions on high speed craft  (a) electric cable transits,  (b) pipe, duct, trunk etc penetrations.	— Reg. X/3.	— IMO Res. MSC.36(63)-(1994 HSC Code) 7,  — IMO Res. MSC.97(73)-(2000 HSC Code) 7.	— IMO Res. MSC.61(67)-(FTP Code) Annex 1 Part 11.	B + D B + E B + F
A.1/3.38	Portable fire-extinguishing equipment for lifeboats and rescue boats	— Reg. III/4,  — Reg. X/3.	— Reg. III/34,  — IMO Res. A.951(23),  — IMO Res. MSC.36(63)-(1994 HSC Code) 8,  — IMO Res. MSC.48(66)-(LSA Code) I, IV, V,  — IMO Res. MSC.97(73)-(2000 HSC Code) 8.	— EN 3-6 (1995) including A1 (1999),  — EN 3-7 (2004) including A1 (2007),  — EN 3-8 (2006) including AC (2007).	B + D B + E B + F
A.1/3.39	Nozzles for equivalent water-mist fire extinguishing systems for machinery spaces and cargo pump rooms	— Reg. II-2/10,  — Reg. X/3.	— Reg. II-2/10,  — IMO Res. MSC.36(63)-(1994 HSC Code) 7,  — IMO Res. MSC.97(73)-(2000 HSC Code) 7,  — IMO Res. MSC.98(73)-(FSS Code) 7.	— IMO MSC/Circ.1165.	B + D B + E B + F
A.1/3.40	Low-location lighting systems (components only)	— Reg. II-2/13,  — IMO Res. MSC.98(73)-(FSS Code) 11.	— Reg. II-2/13,  — IMO Res. MSC.98(73)-(FSS Code) 11.	— IMO Res. A.752(18),  or  — ISO 15370 (2001).	B + D B + E B + F
A.1/3.41	Emergency escape breathing devices (EEBD)	— Reg. II-2/13.	— Reg. II-2/13,  — IMO Res. MSC.98(73)-(FSS Code) 3,  — IMO MSC/Circ.849.	— EN 402(2003),  — EN 1146(2005),  — EN 13794(2002),  — ISO 23269-1 (2008).	B + D B + E B + F
A.1/3.42	Inert gas systems components	— Reg. II-2/4.	— Reg. II-2/4,  — IMO Res. A.567(14),  — IMO Res. MSC.98(73)-(FSS Code) 15,  — IMO MSC/Circ.353,  — IMO MSC/Circ.387,  — IMO MSC/Circ.485,  — IMO MSC/Circ.731,  — IMO MSC/Circ.1120.	— IMO MSC/Circ.353,  — IMO MSC/Circ.387,  — IMO MSC/Circ.450 Rev.1,  — IMO MSC/Circ.485,  — IMO MSC/Circ.731.	B + D B + E B + F G

1	2	3	4	5	6
A.1/3.43	Nozzles for deep fat cooking equipment fire extinguishing systems (automatic or manual type).	<ul style="list-style-type: none"> <li>— Reg. II-2/1,</li> <li>— Reg. II-2/10,</li> <li>— Reg. X/3.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. II-2/1,</li> <li>— Reg. II-2/10,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 7,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 7.</li> </ul>	— ISO 15371 (2009).	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> </ul>
A.1/3.44	Fire-fighters outfit — lifeline	<ul style="list-style-type: none"> <li>— Reg. II-2/10,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.98(73)-(FSS Code) 3.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. II-2/10,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 7,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 7,</li> <li>— IMO Res. MSC.98(73)-(FSS Code) 3.</li> </ul>	<ul style="list-style-type: none"> <li>— IMO Res. MSC.61(67)-(FTP Code) Annex 1 Part 1,</li> <li>— IMO Res. MSC.98(73)-(FSS Code) 3.</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> </ul>
A.1/3.45	Equivalent fixed gas fire extinguishing systems components (extinguishing medium, head valves and nozzles) for machinery spaces and cargo pump rooms	<ul style="list-style-type: none"> <li>— Reg. II-2/10,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.98(73)-(FSS Code) 5.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. II-2/10,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 7,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 7,</li> <li>— IMO Res. MSC.98(73)-(FSS Code) 5,</li> <li>— IMO MSC/Circ.848,</li> <li>— IMO MSC.1/Circ.1317.</li> </ul>	<ul style="list-style-type: none"> <li>— IMO MSC/Circ.848,</li> <li>— IMO MSC.1/Circ.1317.</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> </ul>
A.1/3.46	Equivalent fixed gas fire extinguishing systems for machinery spaces (aerosol systems)	<ul style="list-style-type: none"> <li>— Reg. II-2/10,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.98(73)-(FSS Code) 5.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. II-2/10,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 7,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 7,</li> <li>— IMO Res. MSC.98(73)-(FSS Code) 5,</li> <li>— IMO MSC.1/Circ.1317.</li> </ul>	— IMO MSC.1/Circ.1270.	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> </ul>

1	2	3	4	5	6
A.1/3.47	<p>Concentrate for Fixed High Expansion Foam Fire Extinguishing Systems for Machinery Spaces and Cargo Pump Rooms.</p> <p><i>Note:</i> The fixed high expansion foam fire extinguishing system (including those systems which use inside air from their working spaces for their intended performance), for machinery spaces and cargo pump rooms must still be tested with the approved concentrate to the satisfaction of the Administration.</p>	— Reg. II-2/10.	<p>— Reg. II-2/10,</p> <p>— IMO Res. MSC.98(73)-(FSS Code) 6</p> <p>— IMO MSC.1/Circ.1239.</p>	— IMO MSC/Circ.670.	<p>B + D</p> <p>B + E</p> <p>B + F</p>
A.1/3.48	<p>Fixed water based local application fire fighting systems components for use in category “A” machinery spaces</p> <p>(Nozzles and performance tests).</p>	<p>— Reg. II-2/10,</p> <p>— Reg. X/3.</p>	<p>— Reg. II-2/10,</p> <p>— IMO Res. MSC.36(63)-(1994 HSC Code) 7,</p> <p>— IMO Res. MSC.97(73)-(2000 HSC Code) 7.</p>	<p>— IMO MSC/Circ.913,</p> <p>— IMO MSC.1/Circ.1276.</p>	<p>B + D</p> <p>B + E</p> <p>B + F</p>
<p>A.1/3.49</p> <p>Refer to note (b) of this Annex A.1</p>	<p>Nozzles for fixed water-based fire-fighting systems for ro-ro spaces and special category spaces equivalent to that referred to in resolution A.123(V)</p>	<p>— Reg. II-2/19,</p> <p>— Reg. II-2/20,</p> <p>— Reg. X/3,</p> <p>— IMO Res. MSC.98(73)-(FSS Code) 7.</p>	<p>— Reg. II-2/19,</p> <p>— Reg. II-2/20,</p> <p>— IMO Res. A.123(V),</p> <p>— IMO Res. MSC.36(63)-(1994 HSC Code) 7,</p> <p>— IMO Res. MSC.97(73)-(2000 HSC Code) 7,</p> <p>— IMO Res. MSC.98(73)-(FSS Code) 7.</p>	— IMO MSC.1/Circ.1272.	<p>B + D</p> <p>B + E</p> <p>B + F</p>
A.1/3.50	Protective clothing resistant to chemical attack	Moved to A.2/3.9			

1	2	3	4	5	6
A.1/3.51	Fixed fire detection and fire alarm systems components for control stations, service spaces, accommodation spaces, cabin balconies, machinery spaces and unattended machinery spaces	<ul style="list-style-type: none"> <li>— Reg. II-2/7,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.98(73)-(FSS Code) 9.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. II-2/7,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 7,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 7,</li> <li>— IMO Res. MSC.98(73)-(FSS Code) 9,</li> <li>— IMO MSC.1/Circ.1242.</li> </ul>	<p>Control and indicating equipment. Electrical installations in ships:</p> <ul style="list-style-type: none"> <li>— EN 54-2 (1997) including AC(1999) and A1(2006).</li> </ul> <p>Power supply equipment:</p> <ul style="list-style-type: none"> <li>— EN 54-4 (1997) including AC(1999), A1(2002) and A2(2006).</li> </ul> <p>Heat detectors — Point detectors:</p> <ul style="list-style-type: none"> <li>— EN 54-5 (2000) including A1(2002).</li> </ul> <p>Smoke detectors — Point detectors using scattered light, transmitted light or ionisation:</p> <ul style="list-style-type: none"> <li>— EN 54-7 (2000) including A1(2002) and A2(2006).</li> </ul> <p>Flame detectors — Point detectors:</p> <ul style="list-style-type: none"> <li>— EN 54-10 (2002) including A1(2005).</li> </ul> <p>Manual call points:</p> <ul style="list-style-type: none"> <li>— EN 54-11 (2001) including A1(2005).</li> </ul> <p>And, as applicable, electrical and electronic installations in ships:</p> <ul style="list-style-type: none"> <li>— IEC 60092-504 (2001),</li> <li>— IEC 60533 (1999).</li> </ul>	<p>B + D</p> <p>B + E</p> <p>B + F</p>
A.1/3.52	Non-portable and transportable fire extinguishers	<ul style="list-style-type: none"> <li>— Reg. II-2/10,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.98(73)-(FSS Code) 4.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. II-2/4,</li> <li>— Reg. II-2/10,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 7,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 7,</li> <li>— IMO Res. MSC.98(73)-(FSS Code) 4.</li> </ul>	<ul style="list-style-type: none"> <li>— EN 1866 (2005),</li> <li>— EN 1866-1 (2007),</li> <li>or</li> <li>— ISO 11601 (2008).</li> </ul>	<p>B + D</p> <p>B + E</p> <p>B + F</p>
A.1/3.53	Alarm devices	<ul style="list-style-type: none"> <li>— Reg. II-2/7,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.98(73)-(FSS Code) 9.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. II-2/7,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 7,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 7,</li> <li>— IMO Res. MSC.98(73)-(FSS Code) 9.</li> </ul>	<p>Sounders</p> <ul style="list-style-type: none"> <li>— EN 54-3 (2001) including A1(2002) and A2(2006),</li> <li>— IEC 60092-504 (2001),</li> <li>— IEC 60533 (1999).</li> </ul>	<p>B + D</p> <p>B + E</p> <p>B + F</p>

1	2	3	4	5	6
A.1/3.54	Fixed oxygen analysis and gas detection equipment	— Reg. II-2/4, — Reg. VI/3.	— Reg. II-2/4, — Reg. VI/3, — IMO Res. MSC.98(73)-(FSS Code) 15.	— EN 60945 (2002), — IEC 60092-504 (2001), — IEC 60533 (1999), and as applicable to:  (a) Category 4: (safe area) — EN 50104 (2002) including A.1 2004 Oxygen.  (b) Category 3: (explosive gas atmospheres) — EN 50104 (2002) including A.1 2004 Oxygen, — EN 60079-29-1 (2007).	B + D B + E B + F
A.1/3.55 Refer to note (b) of this Annex A.1	Dual purpose type nozzles (spray/jet type)	— Reg. II-2/10, — Reg. X/3.	— Reg. II-2/10, — IMO Res. MSC.36(63)-(1994 HSC Code) 7, — IMO Res. MSC.97(73)-(2000 HSC Code) 7.	— EN 15182-1 (2007), — EN 15182-3 (2007).	B + D B + E B + F
A.1/3.56 Refer to note (b) of this Annex A.1	Fire hoses (reel type)	— Reg. II-2/10, — Reg. X/3.	— Reg. II-2/10, — IMO Res. MSC.36(63)-(1994 HSC Code), — IMO Res. MSC.97(73)-(2000 HSC Code).	— EN 671-1 (2001) including AC (2002).	B + D B + E B + F
A.1/3.57 Refer to note (b) of this Annex A.1	Medium Expansion Foam Fire Extinguishing Systems components — Fixed Deck Foam for Tankers	— Reg. II-2/10.	— Reg. II-2/10.8.1, — IMO Res. MSC.98(73)-(FSS Code) 14, — IMO MSC.1/Circ.1239, — IMO MSC.1/Circ.1276.	— IMO MSC/Circ.798.	B + D B + E B + F
A.1/3.58 Refer to note (b) of this Annex A.1	Fixed Low Expansion Foam Fire Extinguishing Systems components for Machinery Spaces and Tanker Deck Protection.	— Reg. II-2/10.	— Reg. II-2/10, — IMO Res. MSC.98(73)-(FSS Code) 6, 14, — IMO MSC.1/Circ.1239, — IMO MSC.1/Circ.1276.	— IMO MSC.1/Circ.1312.	B + D B + E B + F
A.1/3.59 Refer to note (b) of this Annex A.1	Expansion Foam for Fixed Fire Extinguishing Systems for Chemical Tankers	— IMO Res. MSC.4(48)-(IBC Code).	— IMO Res. MSC.4(48)-(IBC Code).	— IMO MSC/Circ.553, — IMO MSC.1/Circ.1312.	B + D B + E B + F
A.1/3.60 Refer to note (b) of this Annex A.1	Nozzles for fixed pressure water-spraying fire-extinguishing systems for cabin balconies	— Reg. II-2/10.	— Reg. II-2/10, — IMO Res. MSC.98(73)-(FSS Code) 7.	— IMO MSC.1/Circ.1268.	B + D B + E B + F

1	2	3	4	5	6
A.1/3.61 Refer to note (b) of this Annex A.1	Inside air high expansion foam systems for the protection of machinery spaces and cargo pump rooms  <i>Note:</i> Inside air high expansion foam systems for the protection of machinery spaces and cargo pump rooms shall be tested with the approved concentrate to the satisfaction of the Administration	— Reg. II-2/10.	— Reg. II-2/10,  — IMO Res. MSC.98(73)-(FSS Code) 6.	— IMO MSC.1/Circ.1271.	B + D  B + E  B + F

#### 4. Navigation equipment

Notes applicable to section 4: Navigation equipment.

Column 5: Wherever reference is made to EN 61162 series or IEC 61162 series, the intended item layout shall be taken into account to determine the applicable standard of EN 61162 series or IEC 61162 series.

No	Item designation	Regulation SOLAS 74 where "type approval" is required	Regulations of SOLAS 74 and the relevant resolutions and circulars of the IMO, as applicable	Testing standards	Modules for conformity assessment
1	2	3	4	5	6
A.1/4.1	Magnetic compass	— Reg. V/18.	— Reg. V/19,  — IMO Res. A.382(X),  — IMO Res. A.694(17).	— ISO 1069 (1973),  — ISO 25862 (2009),  — EN 60945 (2002),  or  — ISO 1069 (1973),  — ISO 25862 (2009),  — IEC 60945 (2002).	B + D  B + E  B + F  G
A.1/4.2	Transmitting heading device THD (magnetic method)	— Reg. V/18,  — Reg. V/19,  — Reg. X/3,  — IMO Res. MSC.36(63)-(1994 HSC Code) 13,  — IMO Res. MSC.97(73)-(2000 HSC Code) 13.	— Reg. V/19,  — IMO Res. A.694(17),  — IMO Res. MSC.36(63)-(1994 HSC Code) 13,  — IMO Res. MSC.97(73)-(2000 HSC Code) 13,  — IMO Res. MSC.116(73),  — IMO Res. MSC.191(79).	— EN 60945 (2002),  — EN 61162 series;  — ISO 22090-2 (2004), including Corrigendum 2005,  — EN 62288 (2008),  or  — IEC 60945 (2002),  — IEC 61162 series.  — ISO 22090-2 (2004), including Corrigendum 2005,  — IEC 62288 Ed.1.0(2008).	B + D  B + E  B + F  G



1	2	3	4	5	6
A.1/4.3	Gyro compass	— Reg. V/18.	— Reg. V/19, — IMO Res. A.424(XI), — IMO Res. A.694(17), — IMO Res. MSC.191(79).	— EN ISO 8728 (1998), — EN 60945 (2002), — EN 61162 series, — EN 62288 (2008), or — ISO 8728 (1997), — IEC 60945 (2002), — IEC 61162 series, — IEC 62288 Ed.1.0(2008).	B + D B + E B + F G
A.1/4.4	Radar equipment	Moved to A.1/4.34, A.1/4.35 and A.1/4.36			
A.1/4.5	Automatic radar plotting aid (ARPA)	Moved to A.1/4.34			
A.1/4.6	Echo-sounding equipment	— Reg. V/18, — Reg. X/3, — IMO Res. MSC.36(63)-(1994 HSC Code) 13, — IMO Res. MSC.97(73)-(2000 HSC Code) 13.	— Reg. V/19, — IMO Res. A.224(VII), — IMO Res. A.694(17), — IMO Res. MSC.36(63)-(1994 HSC Code) 13, — IMO Res. MSC.74(69) Annex 4, — IMO Res. MSC.97(73)-(2000 HSC Code) 13, — IMO Res. MSC.191(79).	— EN ISO 9875 (2001) including ISO Technical Corrigendum 1: 2006, — EN 60945 (2002), — EN 61162 series, — EN 62288 (2008), Or — ISO 9875 (2000) including ISO Technical Corrigendum 1: 2006, — IEC 60945 (2002), — IEC 61162 series, — IEC 62288 Ed.1.0(2008).	B + D B + E B + F G
A.1/4.7	Speed and distance measuring equipment (SDME)	— Reg. V/18, — Reg. X/3, — IMO Res. MSC.36(63)-(1994 HSC Code) 13, — IMO Res. MSC.97(73)-(2000 HSC Code) 13.	— Reg. V/19, — IMO Res. A.694(17), — IMO Res. A.824(19), — IMO Res. MSC.36(63)-(1994 HSC Code) 13, — IMO Res. MSC.96(72), — IMO Res. MSC.97(73)-(2000 HSC Code) 13, — IMO Res. MSC.191(79).	— EN 60945 (2002), — EN 61023 (2007), — EN 61162 series, — EN 62288 (2008), or — IEC 60945 (2002), — IEC 61023 (2007), — IEC 61162 series, — IEC 62288 Ed.1.0(2008).	B + D B + E B + F G
A.1/4.8	Rudder angle, rpm, pitch indicator	Moved to A.1/4.20, A.1/4.21 and A.1/4.22			

1	2	3	4	5	6
A.1/4.9 Refer to note (b) of this Annex A.1	Rate-of-turn indicator	<ul style="list-style-type: none"> <li>— Reg. V/18,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. V/19,</li> <li>— IMO Res. A.526(13),</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13,</li> <li>— IMO Res. MSC.191(79).</li> </ul>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>— EN 61162 series,</li> <li>— ISO 20672 (2007),</li> <li>— EN 62288 (2008),</li> <li>or</li> <li>— IEC 60945 (2002),</li> <li>— IEC 61162 series,</li> <li>— ISO 20672 (2007),</li> <li>— IEC 62288 Ed.1.0(2008).</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> <li>G</li> </ul>
A.1/4.10	Direction finder	Deliberately left blank			
A.1/4.11	Loran-C equipment	<ul style="list-style-type: none"> <li>— Reg. V/18,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. V/19,</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. A.818(19),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13,</li> <li>— IMO Res. MSC.191(79).</li> </ul>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>— EN 61075 (1993),</li> <li>— EN 61162 series,</li> <li>— EN 62288 (2008),</li> <li>or</li> <li>— IEC 60945 (2002),</li> <li>— IEC 61075 (1991),</li> <li>— IEC 61162 series,</li> <li>— IEC 62288 Ed.1.0(2008).</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> <li>G</li> </ul>
A.1/4.12	Chayka equipment	<ul style="list-style-type: none"> <li>— Reg. V/18,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. V/19,</li> <li>— IMO Res. A.694 (17),</li> <li>— IMO Res. A.818 (19),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13,</li> <li>— IMO Res. MSC.191(79).</li> </ul>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>— EN 61075 (1993),</li> <li>— EN 61162 series,</li> <li>— EN 62288 (2008),</li> <li>or</li> <li>— IEC 60945 (2002),</li> <li>— IEC 61075 (1991),</li> <li>— IEC 61162 series,</li> <li>— IEC 62288 Ed.1.0(2008).</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> <li>G</li> </ul>
A.1/4.13	Decca navigator equipment	Deliberately left blank			

1	2	3	4	5	6
A.1/4.14	GPS equipment	<ul style="list-style-type: none"> <li>— Reg. V/18,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. V/19,</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code),</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code),</li> <li>— IMO Res. MSC.112(73),</li> <li>— IMO Res. MSC.191(79).</li> </ul>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>— EN 61108-1 (2003),</li> <li>— EN 61162 series,</li> <li>— EN 62288 (2008),</li> <li>or</li> <li>— IEC 60945 (2002),</li> <li>— IEC 61108-1 (2003),</li> <li>— IEC 61162 series,</li> <li>— IEC 62288 Ed.1.0(2008).</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> <li>G</li> </ul>
A.1/4.15	GLONASS equipment	<ul style="list-style-type: none"> <li>— Reg. V/18,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. V/19,</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13,</li> <li>— IMO Res. MSC.113(73),</li> <li>— IMO Res. MSC.191(79).</li> </ul>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>— EN 61108-2 (1998),</li> <li>— EN 61162 series,</li> <li>— EN 62288 (2008),</li> <li>or</li> <li>— IEC 60945 (2002),</li> <li>— IEC 61108-2 (1998),</li> <li>— IEC 61162 series,</li> <li>— IEC 62288 Ed.1.0(2008).</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> <li>G</li> </ul>
A.1/4.16	Heading control system (HCS)	<ul style="list-style-type: none"> <li>— Reg. V/18.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. V/19,</li> <li>— IMO Res. A.342(IX),</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. MSC.64(67) Annex 3,</li> <li>— IMO Res. MSC.191(79).</li> </ul>	<ul style="list-style-type: none"> <li>— ISO 11674 (2006),</li> <li>— EN 60945 (2002),</li> <li>— EN 61162 series,</li> <li>— EN 62288 (2008),</li> <li>or</li> <li>— ISO 11674 (2006),</li> <li>— IEC 60945 (2002),</li> <li>— IEC 61162 series,</li> <li>— IEC 62288 Ed.1.0(2008).</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> <li>G</li> </ul>
A.1/4.17	Mechanical pilot hoist	Moved to A.1/1.40			
A.1/4.18	9 GHz SAR transponder (SART)	<ul style="list-style-type: none"> <li>— Reg. III/4,</li> <li>— Reg. IV/14,</li> <li>— Reg. V/18,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. III/6,</li> <li>— Reg. IV/7,</li> <li>— IMO Res. A.530(13),</li> <li>— IMO Res. A.802(19),</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 8, 14,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 8, 14,</li> <li>— ITU-R M.628-3(11/93).</li> </ul>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>— EN 61097-1 (2007),</li> <li>or</li> <li>— IEC 60945 (2002),</li> <li>— IEC 61097-1 (2007).</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> <li>G</li> </ul>

1	2	3	4	5	6
A.1/4.19	Radar equipment for high-speed craft	Moved to A.1/4.37			
A.1/4.20 Refer to note (b) of this Annex A.1	Rudder angle indicator	<ul style="list-style-type: none"> <li>— Reg. V/18,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. V/19,</li> <li>— IMO Res. A.526(13),</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13,</li> <li>— IMO Res. MSC.191(79).</li> </ul>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>— EN 61162 series,</li> <li>— ISO 20673 (2007),</li> <li>— EN 62288 (2008),</li> <li>or</li> <li>— IEC 60945 (2002),</li> <li>— IEC 61162 series,</li> <li>— ISO 20673 (2007),</li> <li>— IEC 62288 Ed.1.0(2008).</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> <li>G</li> </ul>
A.1/4.21 Refer to note (b) of this Annex A.1	Propeller revolution indicator	<ul style="list-style-type: none"> <li>— Reg. V/18,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. V/19,</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13,</li> <li>— IMO Res. MSC.191(79).</li> </ul>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>— EN 61162 series,</li> <li>— ISO 22554 (2007),</li> <li>— EN 62288 (2008),</li> <li>or</li> <li>— IEC 60945 (2002),</li> <li>— IEC 61162 series,</li> <li>— ISO 22554 (2007),</li> <li>— IEC 62288 Ed.1.0(2008).</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> <li>G</li> </ul>
A.1/4.22 Refer to note (b) of this Annex A.1	Pitch indicator	<ul style="list-style-type: none"> <li>— Reg. V/18,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. V/19,</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13,</li> <li>— IMO Res. MSC.191(79).</li> </ul>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>— EN 61162 series,</li> <li>— ISO 22555 (2007),</li> <li>— EN 62288 (2008),</li> <li>or</li> <li>— IEC 60945 (2002),</li> <li>— IEC 61162 series,</li> <li>— ISO 22555 (2007),</li> <li>— IEC 62288 Ed.1.0(2008).</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> <li>G</li> </ul>
A.1/4.23	Compass for life-boats and rescue boats	<ul style="list-style-type: none"> <li>— Reg. III/4,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. III/34,</li> <li>— IMO Res. MSC.48(66)-(LSA Code) IV, V,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 8, 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 8, 13.</li> </ul>	<ul style="list-style-type: none"> <li>— ISO 25862 (2009).</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> <li>G</li> </ul>
A.1/4.24	Automatic radar plotting aid (ARPA) for high-speed craft	Moved to A.1/4.37			

1	2	3	4	5	6
A.1/4.25	Automatic tracking aid (ATA)	Moved to A.1/4.35			
A.1/4.26	Automatic tracking aid (ATA) for high speed craft	Moved to A.1/4.38			
A.1/4.27	Electronic plotting aid (EPA)	Moved to A.1/4.36			
A.1/4.28	Integrated bridge system	Moved to A.2/4.30			
A.1/4.29	Voyage data recorder (VDR)	<ul style="list-style-type: none"> <li>— Reg. V/18,</li> <li>— Reg. V/20,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. V/20,</li> <li>— IMO Res. A.694 (17),</li> <li>— IMO Res. A.861 (20),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13,</li> <li>— IMO Res. MSC.191(79).</li> </ul>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>— EN 61162 Series,</li> <li>— IEC 61996-1 (2007-11),</li> <li>— EN 62288 (2008),</li> <li>or</li> <li>— IEC 60945 (2002),</li> <li>— IEC 61162 Series,</li> <li>— IEC 61996-1 (2007-11),</li> <li>— IEC 62288 Ed.1.0(2008).</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> <li>G</li> </ul>
A.1/4.30	Electronic chart display and information system (ECDIS) with backup, and raster chart display system (RCDS)	<ul style="list-style-type: none"> <li>— Reg. V/18,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. V/19,</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. A.817(19),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13,</li> <li>— IMO Res. MSC.191(79),</li> <li>— IMO Res. MSC.232(82),</li> <li>— IMO SN.1/Circ.266.</li> </ul> <p>[ECDIS back-up and RCDS are only applicable when this functionality is included in the ECDIS. The module B certificate shall indicate whether these options were tested].</p>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>— EN 61162 Series,</li> <li>— EN 61174 (2008),</li> <li>— EN 62288 (2008),</li> <li>or</li> <li>— IEC 60945 (2002),</li> <li>— IEC 61162 Series,</li> <li>— IEC 61174 (2008),</li> <li>— IEC 62288 Ed.1.0(2008).</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> <li>G</li> </ul>

1	2	3	4	5	6
A.1/4.31	Gyro compass for high-speed craft	<ul style="list-style-type: none"> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13.</li> </ul>	<ul style="list-style-type: none"> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. A.821(19),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13,</li> <li>— IMO Res. MSC.191(79).</li> </ul>	<ul style="list-style-type: none"> <li>— ISO 16328 (2001),</li> <li>— EN 60945 (2002),</li> <li>— EN 61162 Series,</li> <li>— EN 62288 (2008),</li> <li>or</li> <li>— ISO 16328 (2001),</li> <li>— IEC 60945 (2002),</li> <li>— IEC 61162 Series,</li> <li>— IEC 62288 Ed.1.0(2008).</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> <li>G</li> </ul>
A.1/4.32	Universal automatic identification system equipment (AIS)	<ul style="list-style-type: none"> <li>— Reg. V/18,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. V/19,</li> <li>— IMO Res. A.694 (17),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.74(69),</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13,</li> <li>— IMO Res. MSC.191(79),</li> <li>— ITU-R M. 1371-3(2007).</li> </ul> <p><i>Note:</i> ITU-R M. 1371-3(2007) Annex 3 shall only be applicable in accordance with requirements of IMO Res. MSC.74(69).</p>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>— EN 61162 Series,</li> <li>— EN 61993-2 (2001),</li> <li>— EN 62288 (2008),</li> <li>or</li> <li>— IEC 60945 (2002),</li> <li>— IEC 61162 Series,</li> <li>— IEC 61993-2 (2001),</li> <li>— IEC 62288 Ed.1.0(2008).</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> <li>G</li> </ul>
A.1/4.33	Track control system (working at ship's speed from minimum manoeuvring speed up to 30 knots)	<ul style="list-style-type: none"> <li>— Reg. V/18.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. V/19,</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. MSC.74(69),</li> <li>— IMO Res. MSC.191(79).</li> </ul>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>— EN 61162 Series,</li> <li>— EN 62065 (2002),</li> <li>— EN 62288 (2008),</li> <li>or</li> <li>— IEC 60945 (2002),</li> <li>— IEC 61162 Series,</li> <li>— IEC 62065 (2002),</li> <li>— IEC 62288 Ed.1.0(2008).</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> <li>G</li> </ul>
A.1/4.34	Radar equipment CAT 1	<ul style="list-style-type: none"> <li>— Reg. V/18.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. V/19.</li> <li>— IMO Res. A.278(VIII),</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. A.823(19),</li> <li>— IMO Res. MSC.191(79),</li> <li>— IMO Res. MSC.192(79),</li> <li>— ITU-R M. 628-3(11/93),</li> <li>— ITU-R M. 1177-3(06/03).</li> </ul>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>— EN 61162 Series,</li> <li>— EN 62288 (2008),</li> <li>— EN 62388 (2008),</li> <li>or</li> <li>— IEC 60945 (2002),</li> <li>— IEC 61162 Series,</li> <li>— IEC 62288 Ed.1.0(2008).</li> <li>— IEC 62388 Ed.1.0(2007).</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> <li>G</li> </ul>

1	2	3	4	5	6
A.1/4.35	Radar equipment CAT 2	— Reg. V/18.	— Reg. V/19, — IMO Res. A.278(VIII), — IMO Res. A.694(17), — IMO Res. MSC.191(79), — IMO Res. MSC.192(79), — ITU-R M. 628-3(11/93), — ITU-R M. 1177-3(06/03).	— EN 60945 (2002), — EN 61162 Series, — EN 62288 (2008), — EN 62388 (2008), or — IEC 60945 (2002), — IEC 61162 Series, — IEC 62288 Ed.1.0(2008). — IEC 62388 Ed.1.0(2007).	B + D B + E B + F G
A.1/4.36	Radar equipment CAT 3	— Reg. V/18.	— Reg. V/19, — IMO Res. A.278(VIII), — IMO Res. A.694(17), — IMO Res. MSC.191(79), — IMO Res. MSC.192(79), — ITU-R M. 628-3(11/93), — ITU-R M. 1177-3(06/03).	— EN 60945 (2002), — EN 61162 Series, — EN 62288 (2008), — EN 62388 (2008), or — IEC 60945 (2002), — IEC 61162 Series, — IEC 62288 Ed.1.0(2008). — IEC 62388 Ed.1.0(2007).	B + D B + E B + F G
A.1/4.37	Radar equipment for high speed craft applications (CAT 1H, CAT 2H and CAT 3H)	— Reg. X/3, — IMO Res. MSC.36(63)- (1994 HSC Code) 13, — IMO Res. MSC.97(73)- (2000 HSC Code) 13.	— IMO Res. A.278(VIII), — IMO Res. A.694(17), — IMO Res. A.820(19), — IMO Res. MSC.36(63)-(1994 HSC Code) 13, — IMO Res. MSC.97(73)-(2000 HSC Code) 13, — IMO Res. MSC.191(79), — IMO Res. MSC.192(79), — ITU-R M. 628-3(11/93), — ITU-R M. 1177-3(06/03).	— EN 60945 (2002), — EN 61162 Series, — EN 62288 (2008), — EN 62388 (2008), or — IEC 60945 (2002), — IEC 61162 Series, — IEC 62288 Ed.1.0(2008). — IEC 62388 Ed.1.0(2007).	B + D B + E B + F G

1	2	3	4	5	6
A.1/4.38	Radar equipment approved with a chart option, namely: (a) CAT 1 with Chart option, (b) CAT 2 with Chart option, (c) CAT 1 for HSC with Chart option, (d) CAT 2 for HSC with Chart option.	— Reg. X/3, — IMO Res. MSC.36(63)-(1994 HSC Code) 13, — IMO Res. MSC.97(73)-(2000 HSC Code) 13.	— IMO Res. A.278(VIII), — IMO Res. A.694(17), — IMO Res. A.820(19), — IMO Res. MSC.36(63)-(1994 HSC Code) 13, — IMO Res. MSC.97(73)-(2000 HSC Code) 13, — IMO Res. MSC.191(79), — IMO Res. MSC.192(79), — ITU-R M. 628-3(11/93), — ITU-R M. 1177-3(06/03).	— EN 60945 (2002), — EN 61162 Series, — EN 62288 (2008), — EN 62388 (2008), or — IEC 60945 (2002), — IEC 61162 Series, — IEC 62288 Ed.1.0(2008). — IEC 62388 Ed.1.0(2007).	B + D B + E B + F G
A.1/4.39	Radar reflector	— Reg. V/18, — Reg. X/3, — IMO Res. MSC.36(63)-(1994 HSC Code) 13, — IMO Res. MSC.97(73)-(2000 HSC Code) 13.	— Reg. V/19, — IMO Res. MSC.36(63)-(1994 HSC Code) 13, — IMO Res. MSC.97(73)-(2000 HSC Code) 13, — IMO Res. MSC.164(78).	— EN ISO 8729 (1998), — EN 60945 (2002), or — ISO 8729 (1997), — IEC 60945 (2002).	B + D B + E B + F G
A.1/4.40	Heading control system for high speed craft	— Reg. X/3, — IMO Res. MSC.36(63)-(1994 HSC Code) 13, — IMO Res. MSC.97(73)-(2000 HSC Code) 13.	— IMO Res. A.694(17), — IMO Res. A.822(19), — IMO Res. MSC.36(63)-(1994 HSC Code) 13, — IMO Res. MSC.97(73)-(2000 HSC Code) 13, — IMO Res. MSC.191(79).	— ISO 16329 (2003), — EN 60945 (2002), — EN 61162 series, — EN 62288 (2008), or — ISO 16329 (2003), — IEC 60945 (2002), — IEC 61162 series, — IEC 62288 Ed.1.0(2008).	B + D B + E B + F G
A.1/4.41	Transmitting heading device THD (GNSS method)	— Reg. V/18, — Reg. X/3, — IMO Res. MSC.36(63)-(1994 HSC Code) 13, — IMO Res. MSC.97(73)-(2000 HSC Code) 13.	— Reg. V/19, — IMO Res. A.694(17), — IMO Res. MSC.36(63)-(1994 HSC Code) 13, — IMO Res. MSC.97(73)-(2000 HSC Code) 13, — IMO Res. MSC.116(73), — IMO Res. MSC.191(79).	— ISO 22090-3 (2004), — EN 60945 (2002), — EN 61162 series, — EN 62288 (2008), or — ISO 22090-3 (2004), — IEC 60945 (2002), — IEC 61162 series, — IEC 62288 Ed.1.0(2008).	B + D B + E B + F G



1	2	3	4	5	6
A.1/4.42	Searchlight for high speed craft	<ul style="list-style-type: none"> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13.</li> </ul>	<ul style="list-style-type: none"> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13.</li> </ul>	<ul style="list-style-type: none"> <li>— ISO 17884 (2004),</li> <li>— EN 60945 (2002),</li> <li>or</li> <li>— ISO 17884 (2004),</li> <li>— IEC 60945 (2002).</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> <li>G</li> </ul>
A.1/4.43	Night vision equipment for high speed craft	<ul style="list-style-type: none"> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13.</li> </ul>	<ul style="list-style-type: none"> <li>— IMO Res.A.694(17),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.94(72),</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13.</li> </ul>	<ul style="list-style-type: none"> <li>— ISO 16273 (2003),</li> <li>— EN 60945 (2002),</li> <li>or</li> <li>— ISO 16273 (2003),</li> <li>— IEC 60945 (2002).</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> <li>G</li> </ul>
A.1/4.44	Differential beacon receiver for DGPS and DGLONASS Equipment	<ul style="list-style-type: none"> <li>— Reg. V/18,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. V/19,</li> <li>— IMO Res. A.694 (17),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13,</li> <li>— IMO Res. MSC.114(73).</li> </ul>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>— IEC 61108-4 (2004),</li> <li>— EN 61162 series.</li> <li>or</li> <li>— IEC 60945 (2002),</li> <li>— IEC 61108-4 (2004),</li> <li>— IEC 61162 series.</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> <li>G</li> </ul>
A.1/4.45 Refer to note (b) of this Annex A.1	Chart facilities for shipborne radar	Item deleted, as it is covered by A.1/4.38			
A.1/4.46	Transmitting heading device THD (Gyroscopic method)	<ul style="list-style-type: none"> <li>— Reg. V/18.</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. V/19,</li> <li>— IMO Res. A.694 (17),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13,</li> <li>— IMO Res. MSC.116(73),</li> <li>— IMO Res. MSC.191(79).</li> </ul>	<ul style="list-style-type: none"> <li>— ISO 22090-1 (2002) including Corr.1 (2005),</li> <li>— EN 60945 (2002),</li> <li>— EN 61162 series,</li> <li>— EN 62288 (2008),</li> <li>or</li> <li>— ISO 22090-1 (2002) including Corr.1 (2005),</li> <li>— IEC 60945 (2002),</li> <li>— IEC 61162 series,</li> <li>— IEC 62288 Ed.1.0(2008).</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> <li>G</li> </ul>

1	2	3	4	5	6
A.1/4.47	Simplified voyage data recorder (S-VDR)	— Reg. V/20.	— Reg. V/20, — IMO Res. A.694(17), — IMO Res. MSC.163(78), — IMO Res. MSC.191(79).	— EN 60945(2002), — EN 61162 series, — EN 61996-2 (2008), — EN 62288 (2008), or — IEC 60945 (2002), — IEC 61162 series, — IEC 61996-2 (2007), — IEC 62288 Ed.1.0(2008).	B + D B + E B + F G
A.1/4.48	Mechanical pilot hoist	— Reg. V/23.	— Reg. V/23, — IMO Res. A.889(21), — IMO MSC/Circ.773.	— IMO Res.A.889(21).	B + D B + E B + F
A.1/4.49	Pilot ladder	— Reg. V/23, — Reg. X/3.	— Reg. V/23 — IMO Res. A.889(21) — IMO MSC/Circ.773.	— IMO Res. A.889(21) — ISO 799 (2004).	B + D B + E B + F G
A.1/4.50 Refer to note (b) of this Annex A.1	DGPS Equipment	— Reg. V/18, — Reg. X/3, — IMO Res. MSC.36(63)-(1994 HSC Code) 13, — IMO Res. MSC.97(73)-(2000 HSC Code) 13.	— Reg. V/19, — IMO Res. A.694 (17), — IMO Res. MSC.36(63)-(1994 HSC Code) 13, — IMO Res. MSC.97(73)-(2000 HSC Code) 13, — IMO Res. MSC.114(73), — IMO Res. MSC.191(79).	— EN 60945 (2002), — EN 61108-1 (2003), — EN 61108-4 (2004), — EN 61162 series, — EN 62288 (2008), or — IEC 60945 (2002), — IEC 61108-1 (2003), — IEC 61108-4 (2004), — IEC 61162 series, — IEC 62288 Ed.1.0(2008).	B + D B + E B + F G
A.1/4.51 Refer to note (b) of this Annex A.1	DGLONASS Equipment	— Reg. V/18, — Reg. X/3, — IMO Res. MSC.36(63)-(1994 HSC Code) 13, — IMO Res. MSC.97(73)-(2000 HSC Code) 13.	— Reg. V/19, — IMO Res. A.694 (17), — IMO Res. MSC.36(63)-(1994 HSC Code) 13, — IMO Res. MSC.97(73)-(2000 HSC Code) 13, — IMO Res. MSC.114(73), — IMO Res. MSC.191(79).	— EN 60945 (2002), — EN 61108-2 (1998), — EN 61108-4 (2004), — EN 61162 series, — EN 62288 (2008), or — IEC 60945 (2002), — IEC 61108-2 (1998), — IEC 61108-4 (2004), — IEC 61162 series, — IEC 62288 Ed.1.0(2008).	B + D B + E B + F G

1	2	3	4	5	6
A.1/4.52 ex. A.2/4.4	Daylight signalling lamp	— Reg. V/18, — Reg. X/3, — IMO Res. MSC.36(63)-(1994 HSC Code), — IMO Res. MSC.97(73)-(2000 HSC Code).	— Reg. V/19, — IMO Res. A.694(17), — IMO Res. MSC.36(63)-(1994 HSC Code), — IMO Res. MSC.95(72), — IMO Res. MSC.97(73)-(2000 HSC Code).	— EN 60945 (2002) — ISO 25861 (2007), or — IEC 60945 (2002), — ISO 25861 (2007).	B + D B + E B + F

## 5. Radiocommunication equipment

Notes applicable to section 5: Radiocommunication equipment.

Column 5: In case of conflicting requirements between IMO MSC/Circ.862 and the product testing standards, the IMO MSC/Circ.862 requirements shall take precedence.

Wherever reference is made to EN 61162 series or IEC 61162 series, the intended item layout shall be taken into account to determine the applicable standard of EN 61162 series or IEC 61162 series.

No	Item designation	Regulation SOLAS 74 where "type approval" is required	Regulations of SOLAS 74 and the relevant resolutions and circulars of the IMO, as applicable	Testing standards	Modules for conformity assessment
1	2	3	4	5	6
A.1/5.1	VHF radio capable of transmitting and receiving DSC and radiotelephony	— Reg. IV/14, — Reg. X/3, — IMO Res. MSC.36(63)-(1994 HSC Code) 14, — IMO Res. MSC.97(73)-(2000 HSC Code) 14.	— Reg. IV/7, — Reg. X/3, — IMO Res. A.385(X), — IMO Res. A.524(13), — IMO Res. A.694(17), — IMO Res. A.803(19), — IMO Res. MSC.36(63)-(1994 HSC Code) 14, — IMO Res. MSC.97(73)-(2000 HSC Code) 14, — IMO MSC/Circ.862, — IMO COMSAR Circ.32, — ITU-R M.489-2 (10/95), — ITU-R M.493-12 (03/07), — ITU-R M.541-9 (05/04), — ITU-R M.689-2 (11/93).	— ETSI EN 300162-1 V1.4.1 (2006-05), — ETSI EN 300338 V1.2.1 (1999-04), — ETSI EN 300828 V1.1.1 (1998-03), — ETSI EN 301925 V1.2.1 (2006-12), — EN 60945 (2002), — IEC 61097-3 (1994), — IEC 61097-7 (1996), — EN 61162 series, — IMO MSC/Circ.862.	B + D B + E B + F

1	2	3	4	5	6
A.1/5.2	VHF DSC watch-keeping receiver	<ul style="list-style-type: none"> <li>— Reg. IV/14,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 14,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 14.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. IV/7,</li> <li>— Reg. X/3,</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. A.803(19),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 14,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 14,</li> <li>— IMO COMSAR Circ.32,</li> <li>— ITU-R M.489-2 (10/95),</li> <li>— ITU-R M.493-12 (03/07),</li> <li>— ITU-R M.541-9 (05/04).</li> </ul>	<ul style="list-style-type: none"> <li>— ETSI EN 300338 V1.2.1 (1999-04),</li> <li>— ETSI EN 300828 V1.1.1 (1998-03),</li> <li>— ETSI EN 301033 V1.2.1 (2005-05),</li> <li>— EN 60945 (2002),</li> <li>— IEC 61097-3 (1994),</li> <li>— IEC 61097-8 (1998).</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> </ul>
A.1/5.3	NAVTEX receiver	<ul style="list-style-type: none"> <li>— Reg. IV/14,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 14,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 14.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. IV/7,</li> <li>— Reg. X/3,</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 14,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 14,</li> <li>— IMO Res. MSC.148(77),</li> <li>— IMO COMSAR Circ.32,</li> <li>— ITU-R M.540-2 (06/90),</li> <li>— ITU-R M.625-3 (10/95).</li> </ul>	<ul style="list-style-type: none"> <li>— ETSI EN 300065-1 V1.2.1 (2009-01),</li> <li>— ETSI EN 301011 V1.1.1 (1998-09),</li> <li>— EN 60945 (2002),</li> <li>— IEC 61097-6 (2005-12).</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> </ul>
A.1/5.4	EGC receiver	<ul style="list-style-type: none"> <li>— Reg. IV/14,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 14,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 14.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. IV/7,</li> <li>— Reg. X/3,</li> <li>— IMO Res. A.570(14),</li> <li>— IMO Res. A.664(16),</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 14,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 14,</li> <li>— IMO COMSAR Circ.32.</li> </ul>	<ul style="list-style-type: none"> <li>— ETSI ETS 300460 Ed.1 (1996-05),</li> <li>— ETSI ETS 300460/A1 (1997-11),</li> <li>— ETSI EN 300829 V1.1.1 (1998-03),</li> <li>— EN 60945 (2002),</li> <li>— IEC 61097-4 (1994).</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> </ul>

1	2	3	4	5	6
A.1/5.5	HF marine safety information (MSI) equipment (HF NBDP receiver)	<ul style="list-style-type: none"> <li>— Reg. IV/14,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 14,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 14</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. IV/7,</li> <li>— Reg. X/3,</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. A.699(17),</li> <li>— IMO Res. A.700(17),</li> <li>— IMO Res. A.806(19),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 14,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 14,</li> <li>— IMO COMSAR Circ.32,</li> <li>— ITU-R M.491-1 (07/86),</li> <li>— ITU-R M.492-6 (10/95),</li> <li>— ITU-R M.540-2 (06/90),</li> <li>— ITU-R M.625-3 (10/95),</li> <li>— ITU-R M.688 (06/90).</li> </ul>	<ul style="list-style-type: none"> <li>— ETSI ETS 300067 Ed.1 (1990-11),</li> <li>— ETSI ETS 300067/A1 Ed.1 (1993-10),</li> <li>— EN 60945 (2002),</li> <li>— EN 61162 Series.</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> </ul>
A.1/5.6	406 MHz EPIRB (COSPAS-SARSAT)	<ul style="list-style-type: none"> <li>— Reg. IV/14,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 14,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 14.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. IV/7,</li> <li>— Reg. X/3,</li> <li>— IMO Res. A.662(16),</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. A.696(17),</li> <li>— IMO Res. A.810(19),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 14,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 14,</li> <li>— IMO MSC/Circ.862,</li> <li>— IMO COMSAR Circ.32,</li> <li>— ITU-R M.633-3 (05/04),</li> <li>— ITU-R M.690-1 (10/95).</li> </ul>	<ul style="list-style-type: none"> <li>— ETSI EN 300066 V 1.3.1 (2001-01),</li> <li>— EN 60945 (2002),</li> <li>— IEC 61097-2 (2008),</li> <li>— IMO MSC/Circ.862.</li> </ul> <p>Note: IMO MSC/Circ.862 is applicable only to the optional remote activation device, not to the EPIRB itself.</p>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> </ul>
A.1/5.7	L- band EPIRB (INMARSAT)	Deliberately left blank			
A.1/5.8	2182 kHz watch receiver	Deliberately left blank			
A.1/5.9	Two-tone alarm generator	Deliberately left blank			

1	2	3	4	5	6
A.1/5.10	<p>MF radio capable of transmitting and receiving DSC and radiotelephony</p> <p><i>Note:</i> In line with IMO and ITU decisions, the requirements for Two Tone Alarm generator and transmission on H3E are no longer applicable in the testing standards</p>	<ul style="list-style-type: none"> <li>— Reg. IV/14,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 14,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 14.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. IV/9,</li> <li>— Reg. IV/10,</li> <li>— Reg. X/3,</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. A.804(19),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 14,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 14,</li> <li>— IMO COMSAR Circ.32,</li> <li>— ITU-R M.493-12 (03/07),</li> <li>— ITU-R M.541-9 (05/04).</li> </ul>	<ul style="list-style-type: none"> <li>— ETSI EN 300338 V1.2.1 (1999-04),</li> <li>— ETSI ETS 300373-1 V1.2.1 (2002-10),</li> <li>— EN 60945 (2002),</li> <li>— IEC 61097-3 (1994),</li> <li>— IEC 61097-9 (1997),</li> <li>— EN 61162 series,</li> <li>— IMO MSC/Circ.862.</li> </ul>	<p>B + D</p> <p>B + E</p> <p>B + F</p>
A.1/5.11	MF DSC watch-keeping receiver	<ul style="list-style-type: none"> <li>— Reg. IV/14,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 14,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 14.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. IV/9,</li> <li>— Reg. IV/10,</li> <li>— Reg. X/3,</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. A.804(19),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 14,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 14,</li> <li>— IMO COMSAR Circ.32,</li> <li>— ITU-R M.493-12 (03/07),</li> <li>— ITU-R M.541-9 (05/04),</li> <li>— ITU-R M.1173 (10/95).</li> </ul>	<ul style="list-style-type: none"> <li>— ETSI EN 300338 V1.2.1 (1999-04),</li> <li>— ETSI EN 301033 V1.2.1 (2005-05),</li> <li>— EN 60945 (2002),</li> <li>— IEC 61097-3 (1994),</li> <li>— IEC 61097-8 (1998).</li> </ul>	<p>B + D</p> <p>B + E</p> <p>B + F</p>
A.1/5.12	Inmarsat-B SES	<ul style="list-style-type: none"> <li>— Reg. IV/14,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 14,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 14.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. IV/10,</li> <li>— Reg. X/3,</li> <li>— IMO Res. A.570(14),</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. A.808(19),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 14,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 14,</li> <li>— IMO MSC/Circ.862,</li> <li>— IMO COMSAR Circ.32.</li> </ul>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>— IEC 61097-10 (1999),</li> <li>— IMO MSC/Circ 862.</li> </ul>	<p>B + D</p> <p>B + E</p> <p>B + F</p>

1	2	3	4	5	6
A.1/5.13	Inmarsat-C SES	<ul style="list-style-type: none"> <li>— Reg. IV/14,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 14,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 14.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. IV/10,</li> <li>— Reg. X/3,</li> <li>— IMO Res. A.570(14),</li> <li>— IMO Res. A.664 (16), (applicable only if the Inmarsat C SES comprises EGC functions),</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. A.807(19),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 14,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 14,</li> <li>— IMO MSC/Circ.862,</li> <li>— IMO COMSAR Circ.32.</li> </ul>	<ul style="list-style-type: none"> <li>— ETSI ETS 300460 Ed.1 (1996-05),</li> <li>— ETSI ETS 300460/A1 (1997-11),</li> <li>— ETSI EN 300829 V1.1.1 (1998-03),</li> <li>— EN 60945 (2002),</li> <li>— IEC 61097-4 (2007),</li> <li>— EN 61162 series,</li> <li>— IMO MSC/Circ.862.</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> </ul>
A.1/5.14	<p data-bbox="240 1144 443 1249">MF/HF radio capable of transmitting and receiving DSC, NBDP and radiotelephony</p> <p data-bbox="240 1279 443 1503"><i>Note:</i> In line with IMO and ITU decisions, the requirements for Two Tone Alarm generator and transmission on A3H are no longer applicable in testing standards.</p>	<ul style="list-style-type: none"> <li>— Reg. IV/14,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 14,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 14.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. IV/10,</li> <li>— Reg. X/3,</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. A.806(19),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 14,</li> <li>— IMO Res. MSC.97(73)- (2000 HSC Code) 14,</li> <li>— IMO MSC/Circ.862,</li> <li>— IMO COMSAR Circ.32,</li> <li>— ITU-R M.476-5 (10/95),</li> <li>— ITU-R M.491-1 (07/86),</li> <li>— ITU-R M.492-6 (10/95),</li> <li>— ITU-R M.493-12 (03/07),</li> <li>— ITU-R M.541-9 (05/04),</li> <li>— ITU-R M.625-3 (10/95),</li> <li>— ITU-R M.1173 (10/95).</li> </ul>	<ul style="list-style-type: none"> <li>— ETSI ETS 300067 Ed.1 (1990-11),</li> <li>— ETSI ETS 300067/A1 Ed.1 (1993-10),</li> <li>— ETSI EN 300338 V1.2.1 (1999-04),</li> <li>— ETSI EN 300373-1 V1.2.1 (2002-10),</li> <li>— EN 60945 (2002),</li> <li>— IEC 61097-3 (1994),</li> <li>— IEC 61097-9 (1997),</li> <li>— EN 61162 series,</li> <li>— IMO MSC/Circ.862.</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> </ul>

1	2	3	4	5	6
A.1/5.15	MF/HF DSC watch keeping receiver	<ul style="list-style-type: none"> <li>— Reg. IV/14,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 14,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 14.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. IV/10,</li> <li>— Reg. X/3,</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. A.806(19),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 14,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 14,</li> <li>— IMO COMSAR Circ.32,</li> <li>— ITU-R M.493-12 (03/07),</li> <li>— ITU-R M. 541-9 (05/04).</li> </ul>	<ul style="list-style-type: none"> <li>— ETSI EN 300338 V1.2.1 (1999-04),</li> <li>— ETSI EN 301033 V1.2.1 (2005-05),</li> <li>— EN 60945 (2002),</li> <li>— IEC 61097-3 (1994),</li> <li>— IEC 61097-8 (1998).</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> </ul>
A.1/5.16	Aeronautical two way VHF radio telephone apparatus	Moved to A.2/5.8			
A.1/5.17	Portable survival craft two-way VHF radiotelephone apparatus	<ul style="list-style-type: none"> <li>— Reg. IV/14,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 14,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 14.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. III/6,</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. A.809(19),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 8, 14,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 8, 14,</li> <li>— IMO Res. MSC.149(77),</li> <li>— ITU-R M.489-2 (10/95).</li> </ul>	<ul style="list-style-type: none"> <li>— ETSI EN 300225 V1.4.1 (2004-12),</li> <li>— EN 300828 V1.1.1 (1998-03),</li> <li>— EN 60945 (2002),</li> <li>— IEC 61097-12 (1996).</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> </ul>
A.1/5.18	Fixed survival craft two-way VHF radiotelephone apparatus	<ul style="list-style-type: none"> <li>— Reg. IV/14,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 14,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 14.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. III/6,</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. A.809(19),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 8, 14,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 8, 14,</li> <li>— ITU-R M.489-2 (10/95).</li> </ul>	<ul style="list-style-type: none"> <li>— ETSI EN 301466 V1.2.1 (2001-01),</li> <li>— EN 60945 (2002),</li> <li>— IEC 61097-12 (1996).</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> </ul>



1	2	3	4	5	6
A1/5.19	Inmarsat-F SES	<ul style="list-style-type: none"> <li>— Reg. IV/14,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 14,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 14.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. IV/10,</li> <li>— IMO Res. A.570 (14),</li> <li>— IMO Res. A.808 (19),</li> <li>— IMO Res. A.694 (17),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 14,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 14,</li> <li>— IMO MSC/Circ.862,</li> <li>— IMO COMSAR Circ.32.</li> </ul>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>— IEC 61097-13 (2003),</li> <li>— IMO MSC/Circ.862.</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> </ul>

## 6. Equipment required under COLREG 72

No	Item designation	Regulation COLREG 72 where "type approval" is required	Regulations of COLREG and the relevant resolutions and circulars of the IMO, as applicable	Testing standards	Modules for conformity assessment
1	2	3	4	5	6
A.1/6.1	Navigation lights	<ul style="list-style-type: none"> <li>— COLREG Annex I/14.</li> </ul>	<ul style="list-style-type: none"> <li>— COLREG Annex I/14,</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. MSC.253(83).</li> </ul>	<ul style="list-style-type: none"> <li>— EN 14744 (2005) including AC (2006),</li> <li>— EN 60945 (2002),</li> <li>or</li> <li>— EN 14744 (2005) including AC (2006),</li> <li>— IEC 60945 (2002).</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> <li>G</li> </ul>

## 7. Bulk carrier safety equipment

No items in Annex A.1.

## 8. Equipment under SOLAS Chapter II-1. Construction — structure, subdivision and stability, machinery and electrical installations

No	Item designation	Regulation SOLAS 74 where "type approval" is required	Regulations of SOLAS 74 and the relevant resolutions and circulars of the IMO, as applicable	Testing standards	Modules for conformity assessment
1	2	3	4	5	6
A.1/8.1 (new item)	Water level detectors	<ul style="list-style-type: none"> <li>— IMO Res. MSC.188(79),</li> <li>— IMO MSC.1/Circ.1291.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. II-1/22-1,</li> <li>— Reg. II-1/23-3,</li> <li>— Reg. XII/12</li> <li>— IMO Res. MSC.188(79),</li> <li>— IMO MSC.1/Circ.1291.</li> </ul>	<ul style="list-style-type: none"> <li>— IEC 60092-0504 (2001),</li> <li>— IEC 60529 (2001),</li> <li>— IMO Res. MSC.188(79),</li> <li>— IMO MSC.1/Circ.1291.</li> </ul>	<ul style="list-style-type: none"> <li>B + D</li> <li>B + E</li> <li>B + F</li> </ul>

## ANNEX A.2

## EQUIPMENT FOR WHICH NO DETAILED TESTING STANDARDS EXIST IN INTERNATIONAL INSTRUMENTS

## 1. Life-saving appliances

Column 4: IMO MSC/Circular 980 should apply except when superseded by the specific instruments referred to in Column 4.

No	Item designation	Regulation SOLAS 74 where "type approval" is required	Regulations of SOLAS 74 and the relevant resolutions and circulars of the IMO, as applicable	Testing standards	Modules for conformity assessment
1	2	3	4	5	6
A.2/1.1	Radar reflector for liferafts	— Reg. III/4, — Reg. III/34, — Reg. X/3.	— IMO Res. MSC.48(66)-(LSA Code).		
A.2/1.2	Immersion suit materials	Deliberately left blank			
A.2/1.3	Float-free launching appliances for survival craft	— Reg. III/4, — Reg. III/34.	— Reg. III/13, — Reg. III/16, — Reg. III/26, — Reg. III/34, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, — IMO Res. MSC.48(66)-(LSA Code) I, IV, VI, — IMO Res. MSC.97(73)-(2000 HSC Code) 8.		
A.2/1.4	Embarkation ladders	Moved to A.1/1.29			
A.2/1.5	Public address and general emergency alarm system  (when used as fire alarm device item A.1/3.53 shall apply)	— Reg. III/6.	— IMO Res. MSC.36(63)-(1994 HSC Code), — IMO Res. MSC.48(66)-(LSA Code), — IMO Res. MSC.97(73)-(2000 HSC Code), — IMO MSC/Circ.808.		

## 2. Marine pollution prevention

No	Item designation	Regulation MARPOL 73/78 where "type approval" is required	Regulations of MARPOL 73/78 and the relevant resolutions and circulars of the IMO, applicable	Testing standards	Modules for conformity assessment
1	2	3	4	5	6
A.2/2.1	On board NO <sub>x</sub> monitoring and recording devices	Moved to A.1/2.8			

1	2	3	4	5	6
A.2/2.2	On board exhaust gas cleaning systems	— Annex VI, Reg. 13, — Annex VI, Reg. 14.	— Annex VI Reg. 13, — Annex VI Reg. 14.	— IMO Res. MEPC.170 (57).	
A.2/2.3	Other equivalent methods to reduce on board NO <sub>x</sub> emissions	— Annex VI, Reg. 13.	— Annex VI, Reg. 13.		
A.2/2.4	Other technological methods to limit SO <sub>x</sub> emissions	Moved to A.1/2.9			

### 3. Fire protection equipment

No	Item designation	Regulation SOLAS 74 where "type approval" is required	Regulations of SOLAS 74 and the relevant resolutions and circulars of the IMO, as applicable	Testing standards	Modules for conformity assessment
1	2	3	4	5	6
A.2/3.1	Non-portable and transportable extinguishers	Moved to A.1/3.52			
A.2/3.2	Nozzles for fixed pressure water-spraying fire-extinguishing systems for special category spaces, ro-ro cargo spaces, ro-ro spaces and vehicle spaces	Moved to A.1/3.49			
A.2/3.3	Cold-weather starting of generator sets (starting devices)	Moved to A.2/8.1			
A.2/3.4	Dual purpose type nozzles (spray/jet type)	Moved to A.1/3.55			
A.2/3.5	Fixed fire detection and fire alarm systems components for control stations, service spaces, accommodation spaces, machinery spaces and unattended machinery spaces	Moved to A.1/3.51			
A.2/3.6	Smoke detectors	Moved to A.1/3.51			
A.2/3.7	Heat detectors	Moved to A.1/3.51			

1	2	3	4	5	6
A.2/3.8	Electric safety lamp	— Reg. II-2/10, — Reg. X/3, — IMO Res. MSC.98(73)-(FSS Code).	— Reg. II-2/10, — IMO Res. MSC.36(63)-(1994 HSC Code), — IMO Res. MSC.97(73)-(2000 HSC Code), — IMO Res. MSC.98(73)-(FSS Code), 3.	— IEC Publication 79.	
A.2/3.9	Protective clothing resistant to chemical attack	— Reg. II-2/19.	— Reg. II-2/19, — IMO Res. MSC.36(63)-(1994 HSC Code) 7, — IMO Res. MSC.97(73)-(2000 HSC Code) 7.	— EN 943-1 (2002), — EN 943-1 (2002) including AC (2005), — EN 943-2 (2002), — EN ISO 6529 (2001), — EN ISO 6530 (2005), — EN 14605 (2005), — IMO MSC/Circ.1120.	
A.2/3.10	Low-location lighting systems	Moved to A.1/3.40			
A.2/3.11	Nozzles for fixed pressure water spraying fire extinguishing systems for machinery spaces	Moved to A.1/3.10			
A.2/3.12	Equivalent fixed gas fire extinguishing systems for machinery spaces and cargo pump rooms	Moved to A.1/3.45			
A.2/3.13	Compressed airline breathing apparatus (High Speed Craft)	Item deleted			
A.2/3.14	Fire hoses (reel type)	Moved to A.1/3.56			
A.2/3.15	Sample extraction smoke detection systems components	— Reg. II-2/7, — Reg. II-2/19, — Reg. II-2/20, — IMO Res. MSC.98(73)-(FSS Code) 10.	— Reg. II-2/7, — Reg. II-2/19, — Reg. II-2/20, — IMO Res. MSC.98(73)-(FSS Code) 10.	— IMO Res. MSC.98(73)-(FSS Code) 10.	
A.2/3.16	Flame detectors	Moved to A.1/3.51			
A.2/3.17	Manual call points	Moved to A.1/3.51			
A.2/3.18	Alarm devices	Moved to A.1/3.53			

1	2	3	4	5	6
A.2/3.19	Fixed water based local application fire fighting systems components for use in category "A" machinery spaces.	Moved to A.1/3.48			
A.2/3.20	Upholstered furniture	Moved to A.1/3.20			
A.2/3.21	Paint lockers and flammable liquid lockers fire extinguishing systems components	— Reg. II-2/10.	— Reg. II-2/10, — IMO Res. MSC.98(73)-(FSS Code), — IMO MSC.1/Circ.1239.		
A.2/3.22	Galley Exhaust Duct Fixed Fire Extinguishing Systems components	— Reg. II-2/9.	— Reg. II-2/9.		
A.2/3.23	Helicopter Deck Fire Extinguishing Systems components	— Reg. II-2/18.	— Reg. II-2/18, — IMO MSC.1/Circ.1239.	— EN 13565-1 (2003) including A1 (2007).	
A.2/3.24	Portable Foam Applicator Units	— Reg. II-2/10, — Reg. II-2/20, — Reg. X/3.	— Reg. II-2/10, — Reg. II-2/20, — IMO Res. MSC.36(63)-(1994 HSC Code) 7, — IMO Res. MSC.97(73)-(2000 HSC Code) 7, — IMO Res. MSC.98(73)-(FSS Code) 4, — IMO MSC.1/Circ.1239.		
A.2/3.25	C class Divisions	— Reg. II-2/3.	— Reg. II-2/3.	— IMO Res. A.653(16), — IMO Res. A.799(19), — IMO Res. MSC.61(67)-(FTP Code) Annex 1 Part 1 and Part 5 or Annex 2, — ISO 1716 (2002).	
A.2/3.26	Gaseous Fuel Systems Used for Domestic Purposes (components)	— Reg. II-2/4.	— Reg. II-2/4, — IMO MSC.1/Circ.1276.		

1	2	3	4	5	6
A.2/3.27	Fixed Gas Fire Extinguishing Systems (CO <sub>2</sub> ) components.	<ul style="list-style-type: none"> <li>— Reg. II-2/5,</li> <li>— Reg. II-2/10,</li> <li>— Reg. X/3.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. II-2/5,</li> <li>— Reg. II-2/10,</li> <li>— Reg. II-2/20,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 7,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 7,</li> <li>— IMO Res. MSC.98(73)-(FSS Code) 7.</li> </ul>	<ul style="list-style-type: none"> <li>— EN 12094-1 (2003),</li> <li>— EN 12094-2 (2003),</li> <li>— EN 12094-3 (2003),</li> <li>— EN 12094-4 (2004),</li> <li>— EN 12094-5 (2006),</li> <li>— EN 12094-6 (2006),</li> <li>— EN 12094-7 (2000) including A1 (2005),</li> <li>— EN 12094-8 (2006),</li> <li>— EN 12094-10 (2003),</li> <li>— EN 12094-11 (2003),</li> <li>— EN 12094-13 (2001) including AC (2002),</li> <li>— EN 12094-16 (2003).</li> </ul>	
A.2/3.28	Medium Expansion Foam Fire Extinguishing Systems components — Fixed Deck Foam for Tankers	Moved to A.1/3.57			
A.2/3.29	Fixed Low Expansion Foam Fire Extinguishing Systems components for Machinery Spaces and Tanker Deck Protection.	Moved to A.1/3.58			
A.2/3.30	Expansion Foam for Fixed Fire Extinguishing Systems for Chemical Tankers	Moved to A.1/3.59			
A.2/3.31	Water Spraying Hand Operated System	<ul style="list-style-type: none"> <li>— Reg. II-2/10.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. II-2/10,</li> <li>— IMO Res. A.800 (19).</li> </ul>		
A.2/3.32 (new item)	Dry chemical powder extinguishing systems	<ul style="list-style-type: none"> <li>— Reg. II-2/1.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. II-2/1,</li> <li>— International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk: Chapter 11.</li> </ul>		

#### 4. Navigation equipment

Notes applicable to section 4: Navigation equipment

Columns 3 and 4: References to SOLAS Chapter V are to SOLAS 1974 as amended by MSC 73 and entering into force on 1 July 2002.

No	Item designation	Regulation SOLAS 74 where "type approval" is required	Regulations of SOLAS 74 and the relevant resolutions and circulars of the IMO, as applicable	Testing standards	Modules for conformity assessment
1	2	3	4	5	6
A.2/4.1	Gyro compass for high speed craft	Moved to A.1/4.31			
A.2/4.2	Heading control system for high speed craft (formerly auto-pilot)	Moved to A.1/4.40			
A.2/4.3	Transmitting heading device THD (GNSS method)	Moved to A.1/4.41			
A.2/4.4	Daylight signalling lamp	Moved to A.1/4.52			
A.2/4.5	Searchlight for high speed craft	Moved to A.1/4.42			
A.2/4.6	Night vision equipment for high speed craft	Moved to A.1/4.43			
A.2/4.7	Track control system	Moved to A.1/4.33			
A.2/4.8	Electronic Chart Display and Information System (ECDIS).	Moved to A.1/4.30			
A.2/4.9	Electronic Chart Display and Information System (ECDIS) backup	Moved to A.1/4.30			
A.2/4.10	Raster Chart Display System (RCDS)	Moved to A.1/4.30			
A.2/4.11	Combined GPS/GLONASS equipment	<ul style="list-style-type: none"> <li>— Reg. V/18,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code),</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code).</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. V/19,</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code),</li> <li>— IMO Res. MSC.74(69),</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code),</li> <li>— IMO Res. MSC.191(79).</li> </ul>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>— EN 61108-1 (2003),</li> <li>— EN 61108-2 (1998),</li> <li>— EN 61162 series,</li> <li>— EN 62288 (2008),</li> <li>or</li> <li>— IEC 60945 (2002),</li> <li>— IEC 61108-1 (2003),</li> <li>— IEC 61108-2 (1998),</li> <li>— IEC 61162 series,</li> <li>— IEC 62288 Ed.1.0 (2008).</li> </ul>	

1	2	3	4	5	6
A.2/4.12	DGPS, DGLO-NASS equipment	Moved to A.1/4.44, A.1/4.50 and A.1/4.51			
A.2/4.13	Gyro compass for high speed craft	Moved to A.1/4.31			
A.2/4.14	Voyage data recorder (VDR)	Moved to A.1/4.29			
A.2/4.15	Integrated navigation system	<ul style="list-style-type: none"> <li>— Reg. V/18,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. V/19,</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. MSC.86(70),</li> <li>— IMO Res. MSC.191(79).</li> </ul>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>— EN 61162 series,</li> <li>— EN 61924 (2006),</li> <li>— EN 62288 (2008),</li> <li>or</li> <li>— IEC 60945 (2002),</li> <li>— IEC 61162 series,</li> <li>— IEC 61924 (2006),</li> <li>— IEC 62288 Ed.1.0 (2008).</li> </ul>	
A.2/4.16	Integrated bridge system	Deliberately left blank			
A.2/4.17	Radar target enhancer	<ul style="list-style-type: none"> <li>— Reg. V/18,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code),</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code).</li> </ul>	<ul style="list-style-type: none"> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. MSC.164(78),</li> <li>— ITU-R M 1176 (10/95).</li> </ul>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>or</li> <li>— IEC 60945 (2002).</li> </ul>	
A.2/4.18	Sound reception system	<ul style="list-style-type: none"> <li>— Reg. V/18,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code),</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code).</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. V/19,</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code),</li> <li>— IMO Res. MSC.86(70),</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code).</li> </ul>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>— EN 61162 series.</li> <li>or</li> <li>— IEC 60945 (2002),</li> <li>— IEC 61162 series.</li> </ul>	
A.2/4.19	Magnetic compass for high speed craft	<ul style="list-style-type: none"> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code),</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code).</li> </ul>	<ul style="list-style-type: none"> <li>— IMO Res. A.382(X),</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code),</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code).</li> </ul>	<ul style="list-style-type: none"> <li>— ISO 1069 (1973),</li> <li>— ISO 25862(2009),</li> <li>— EN 60945 (2002),</li> <li>or</li> <li>— ISO 1069 (1973),</li> <li>— ISO 25862(2009),</li> <li>— IEC 60945 (2002).</li> </ul>	



1	2	3	4	5	6
A.2/4.20	Track control system for — high-speed craft	— Reg. V/18, — Reg. X/3, — IMO Res. MSC.36(63)-(1994 HSC Code), — IMO Res. MSC.97(73)-(2000 HSC Code).	— Reg. V/19, — IMO Res. A.694(17), — IMO Res. MSC.36(63)-(1994 HSC Code), — IMO Res. MSC.97(73)-(2000 HSC Code), — IMO Res. MSC.191(79).	— EN 60945 (2002), — EN 61162 series, — EN 62288 (2008), or — IEC 60945 (2002), — IEC 61162 series, — IEC 62288 Ed.1.0 (2008).	
A.2/4.21	Chart facilities for shipborne radar	Moved to A.1/4.45			
A.2/4.22	Transmitting heading device THD (Gyroscopic method)	Moved to A.1/4.46			
A.2/4.23	Transmitting heading device THD (Magnetic method)	Moved to A.1/4.2			
A.2/4.24	Thrust indicator	— Reg. V/18, — Reg. X/3, — IMO Res. MSC.36(63)-(1994 HSC Code), — IMO Res. MSC.97(73)-(2000 HSC Code).	— Reg. V/19, — IMO Res. A.694(17), — IMO Res. MSC.36(63)-(1994 HSC Code), — IMO Res. MSC.97(73)-(2000 HSC Code), — IMO Res. MSC.191(79).	— EN 60945 (2002), — EN 61162 series, — EN 62288 (2008), or — IEC 60945 (2002), — IEC 61162 series, — IEC 62288 Ed.1.0 (2008).	
A.2/4.25	Lateral thrust, pitch and mode indicators	— Reg. V/18, — Reg. X/3, — IMO Res. MSC.36(63)-(1994 HSC Code), — IMO Res. MSC.97(73)-(2000 HSC Code).	— Reg. V/19, — IMO Res. A.694(17), — IMO Res. MSC.36(63)-(1994 HSC Code), — IMO Res. MSC.97(73)-(2000 HSC Code), — IMO Res. MSC.191(79).	— EN 60945 (2002), — EN 61162 series, — EN 62288 (2008), or — IEC 60945 (2002), — IEC 61162 series, — IEC 62288 Ed.1.0 (2008).	
A.2/4.26	Rate-of-turn indicator	Moved to A.1/4.9			
A.2/4.27	Rudder angle indicator	Moved to A.1/4.20			

1	2	3	4	5	6
A.2/4.28	Propeller revolution indicator	Moved to A.1/4.21			
A.2/4.29	Pitch indicator	Moved to A.1/4.22			
A.2/4.30	Integrated bridge system	<ul style="list-style-type: none"> <li>— Reg. V/18,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. V/19,</li> <li>— IMO Res. A.694 (17),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 15,</li> <li>— IMO Res. MSC.64(67),</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 15,</li> <li>— IMO Res. MSC.191(79).</li> </ul>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>— EN 61162 Series,</li> <li>— EN 61209 (1999),</li> <li>— EN 62288 (2008),</li> <li>or</li> <li>— IEC 60945 (2002),</li> <li>— IEC 61162 Series,</li> <li>— IEC 61209 (1999),</li> <li>— IEC 62288 Ed.1.0 (2008).</li> </ul>	
A.2/4.31	Bearing Device	— Reg. V/18.	— Reg. V/19.	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>or</li> <li>— IEC 60945 (2002).</li> </ul>	
A.2/4.32	Bridge Navigational Watch Alarm System (BNWAS)		<ul style="list-style-type: none"> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. MSC.128(75),</li> <li>— IMO MSC/Circ.982,</li> <li>— IMO Res. MSC.191(79).</li> </ul>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>— EN 61162 Series,</li> <li>— EN 62288 (2008),</li> <li>or</li> <li>— IEC 60945 (2002),</li> <li>— IEC 61162 Series,</li> <li>— IEC 62288 Ed.1.0 (2008).</li> </ul>	
A.2/4.33	Track control system  (working at ship's speed from 30 knots and above)	— Reg. V/18.	<ul style="list-style-type: none"> <li>— Reg. V/19,</li> <li>— IMO Res. A.694 (17).</li> </ul>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>— EN 61162 Series.</li> <li>or</li> <li>— IEC 60945 (2002),</li> <li>— IEC 61162 Series.</li> </ul>	
A.2/4.34	Equipment with Long Range Identification and Tracking (LRIT) capability	— Reg. V/19	<ul style="list-style-type: none"> <li>— Reg. V/19,</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. A.813(19),</li> <li>— IMO Res. MSC.202(81),</li> <li>— IMO Res. MSC.211(81),</li> <li>— IMO Res. MSC.263(84),</li> <li>— IMO MSC.1/Circ 1307.</li> </ul>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>— EN 61162 Series.</li> <li>or</li> <li>— IEC 60945 (2002),</li> <li>— IEC 61162 Series.</li> </ul>	

1	2	3	4	5	6
A.2/4.35	Galileo Receiver	<ul style="list-style-type: none"> <li>— Reg. V/18,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. V/19,</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. A.813(19),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code) 13,</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code) 13,</li> <li>— IMO Res. MSC.233(82),</li> <li>— IMO Res. MSC.191(79).</li> </ul>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>— EN 61162 Series,</li> <li>— EN 62288 (2008),</li> <li>or</li> <li>— IEC 60945 (2002),</li> <li>— IEC 61162 Series,</li> <li>— IEC 62288 Ed.1.0 (2008).</li> </ul>	
A.2/4.36	AIS SART equipment	<ul style="list-style-type: none"> <li>— Reg. III/4,</li> <li>— Reg. IV/14.</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. III/6,</li> <li>— Reg. IV/7,</li> <li>— IMO Res. MSC.246(83),</li> <li>— IMO Res. MSC.247(83),</li> <li>— IMO Res. MSC.256(84).</li> </ul>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>— EN 61162 Series,</li> <li>or</li> <li>— IEC 60945 (2002),</li> <li>— IEC 61162 Series.</li> </ul>	

## 5. Radiocommunication equipment

No	Item designation	Regulation SOLAS 74 where "type approval" is required	Regulations of SOLAS 74 and the relevant resolutions and circulars of the IMO, as applicable	Testing standards	Modules for conformity assessment
1	2	3	4	5	6
A.2/5.1	VHF EPIRB	<ul style="list-style-type: none"> <li>— Reg. IV/14,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code),</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code).</li> </ul>	<ul style="list-style-type: none"> <li>— Reg.IV/8,</li> <li>— IMO Res. A.662(16),</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. A.805(19),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code),</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code),</li> <li>— ITU-R M.489-2 (10/95),</li> <li>— ITU-R M.693 (06/90).</li> </ul>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>or</li> <li>— IEC 60945 (2002).</li> </ul>	

1	2	3	4	5	6
A.2/5.2	Radio reserve source of energy	<ul style="list-style-type: none"> <li>— Reg. IV/14,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code),</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code).</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. IV/13,</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code),</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code),</li> <li>— IMO COMSAR Circ.16,</li> <li>— IMO COMSAR Circ.32.</li> </ul>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>or</li> <li>— IEC 60945 (2002).</li> </ul>	
A.2/5.3	Inmarsat-F SES	Moved to A.1/5.19.			
A.2/5.4	Distress panel	<ul style="list-style-type: none"> <li>— Reg. IV/14,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code),</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code).</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. IV/6,</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code),</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code),</li> <li>— IMO MSC/Circ.862,</li> <li>— IMO COMSAR Circ.32.</li> </ul>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>or</li> <li>— IEC 60945 (2002).</li> </ul>	
A.2/5.5	Distress alarm or alert panel	<ul style="list-style-type: none"> <li>— Reg. IV/14,</li> <li>— Reg. X/3,</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code),</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code).</li> </ul>	<ul style="list-style-type: none"> <li>— Reg. IV/6,</li> <li>— IMO Res.A.694(17),</li> <li>— IMO Res. MSC.36(63)-(1994 HSC Code),</li> <li>— IMO Res. MSC.97(73)-(2000 HSC Code),</li> <li>— IMO MSC/Circ.862,</li> <li>— IMO COMSAR Circ.32.</li> </ul>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>or</li> <li>— IEC 60945 (2002).</li> </ul>	
A.2/5.6	L- band EPIRB (INMARSAT)	Deliberately left blank			
A.2/5.7	Ship security alert system		<ul style="list-style-type: none"> <li>— Reg. XI-2/6,</li> <li>— IMO Res. A.694(17),</li> <li>— IMO Res. MSC.147(77),</li> <li>— IMO MSC/Circ.1072.</li> </ul>	<ul style="list-style-type: none"> <li>— EN 60945 (2002),</li> <li>— EN 61162 Series.</li> <li>or</li> <li>— IEC 60945 (2002),</li> <li>— IEC 61162 Series.</li> </ul>	

1	2	3	4	5	6
A.2/5.8 Ex A.1/5.16	Aeronautical two way VHF radio telephone apparatus	— Reg. IV/14, — Reg. X/3, — IMO Res. MSC.36(63)-(1994 HSC Code) 14, — IMO Res. MSC.97(73)-(2000 HSC Code) 14.	— Reg. IV/7, — IMO Res. A.694(17), — IMO Res. MSC.36(63)-(1994 HSC Code) 14, — IMO Res. MSC.97(73)-(2000 HSC Code) 14, — IMO Res. MSC.80 (70), — IMO COMSAR Circ.32, — ICAO Convention, Annex 10, Radio Regulations.	— ETSI EN 301688 V1.1.1 (2000-07), — EN 60945 (2002).	

## 6. Equipment required under COLREG 72

No	Item designation	Regulation COLREG 72 where "type approval" is required	Regulations of COLREG and the relevant resolutions and circulars of the IMO, as applicable	Testing standards	Modules for conformity assessment
1	2	3	4	5	6
A.2/6.1	Navigation lights	Moved to A.1/6.1.			
A.2/6.2	Sound signal appliances	— COLREG 72 Annex III/3.	— COLREG 72 Annex III/3, — IMO Res. A.694(17).	— EN 60945 (2002), — Whistles — COLREG 72 Annex III/1 (Performance), — Bells or Gongs — COLREG 72 Annex III/2 (Performance), or — IEC 60945 (2002), — Whistles — COLREG 72 Annex III/1 (Performance), — Bells or Gongs - COLREG 72 Annex III/2 (Performance).	

## 7. Bulk carrier safety equipment

No	Item designation	Regulation SOLAS 74 where "type approval" is required	Regulations of SOLAS 74 and the relevant resolutions and circulars of the IMO, as applicable	Testing standards	Modules for conformity assessment
1	2	3	4	5	6
A.2/7.1	Loading instrument	— Reg. XII/11, — 1997 SOLAS Conference Res. 5.	— Reg. XII/11, — 1997 SOLAS Conference Res. 5.	— IMO MSC.1/Circ 1229.	
A.2/7.2	Water level detectors on bulk carriers	Item deleted			

**8. SOLAS Chapter II-1 equipment**

No	Item designation	Regulation SOLAS 74 where "type approval" is required	Regulations of SOLAS 74 and the relevant resolutions and circulars of the IMO, as applicable	Testing standards	Modules for conformity assessment
1	2	3	4	5	6
A.2/8.1 ex. A.2/3.3	Cold-weather starting of generator sets (starting devices)	— Reg. II-1/44, — Reg. X/3.	— Reg. II-1/44, — IMO Res. MSC.36(63)-(1994 HSC Code), — IMO Res. MSC.97(73)-(2000 HSC Code).'		