[F1ANNEX A

Textual Amendments

F1 Substituted by Commission Directive 2012/32/EU of 25 October 2012 amending Council Directive 96/98/EC on marine equipment (Text with EEA relevance).

General note for Annex A: SOLAS Regulations refer to SOLAS consolidated version 2009.

General note for Annex A: Within certain item designations, column 5 shows some possible product variants under the same item designation. Product variants are independently provisioned and separated by a dotted lined from each other. For certification purpose only the relevant product variant shall be chosen, as appropriate (Example: A.1/3.3).

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.
IGC, International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk.
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_x, Nitrogen oxides.
SOLAS, International Convention for the Safety of Life at Sea.
SO_x, Sulphur oxides.
Reg., Regulation.
Res., Resolution.

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 2010/68/EU[(1)] may apply (6th amendment of MED Annex A).

(c) Column 1: Article 2 of Commission Directive 2011/75/EU[(2)] may apply (7th amendment of MED Annex A).

(d) Column 2: When the term ‘systems components’ is used 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.

(e) 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.

(f) 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.

(g) 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.

(h) Column 6: Where module H appears, module H plus design-examination certificate is to be understood.

(i) The requirements laid down in this Annex shall be without prejudice to carriage requirements in the international conventions.

1. Life-saving appliances

Column 4: IMO MSC/Circular 980 shall apply except when superseded by the specific instruments referred to in Column 4.

No	Item designation	Regulation SOLAS 74, as amended, where ‘type approval’ is required	Regulations of SOLAS 74, as amended, and the relevant resolutions and	Testing standards	Modules for conformity assessment

a Member States may apply Circular MSC.1/Circ.1393 of the IMO.

			circulars of the IMO, as applicable		
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)	— IMO Res. MSC.81(70).	B + D B + E B + F

a Member States may apply Circular MSC.1/Circ.1393 of the IMO.

				—	II, IV, IMO Res. MSC.97(73)-(2000 HSC Code) 8.		
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	—	IMO Res. MSC.81(70). B + D B + E B + F

a Member States may apply Circular MSC.1/Circ.1393 of the IMO.

				Code) I, II, — IMO Res. MSC.97(73)-(2000 HSC Code) 8, — IMO MSC/Circ.922, — IMO MSC.1/Circ.1304.			
A.1/1.5	Immersion suits and anti-exposure suits not classified as lifejackets: — 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 MSC/Circ.1046.	—	IMO Res. MSC.81(70).	B + D B + E B + F
A.1/1.6	Immersion suits and anti-exposure suits	— Reg. III/4, — Reg. X/3.		— Reg. III/7, — Reg. III/22,	—	IMO Res. MSC.81(70).	B + D B + E B + F

a Member States may apply Circular MSC.1/Circ.1393 of the IMO.

	classified as lifejackets: — insulated or non-insulated.			— 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 MSC/Circ.1046.		
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	— IMO Res. MSC.81(70).	B + D B + E B + F

a Member States may apply Circular MSC.1/Circ.1393 of the IMO.

				— Code) 8, — IMO MSC/ Circ.1046.			
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	—	IMO Res. MSC.81(70).	B + D B + E B + F

a Member States may apply Circular MSC.1/Circ.1393 of the IMO.

				HSC Code) 8.			
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)-		IMO Res. MSC.81(70).	B + D B + E B + F

a Member States may apply Circular MSC.1/Circ.1393 of the IMO.

				(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.			
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 Res. MSC.81(70), IMO MSC/Circ.1006.	B + D B + E	

a Member States may apply Circular MSC.1/Circ.1393 of the IMO.

				—	IMO MSC/ Circ.811.		
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, — IMO MSC/ Circ.811.	IMO Res. MSC.81(70).	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	IMO Res. MSC.81(70).	B + D B + E B + F	

a Member States may apply Circular MSC.1/Circ.1393 of the IMO.

				Code) I, IV, — IMO Res. MSC.97(73)-(2000 HSC Code) 8, — IMO MSC/Circ.809, — IMO MSC/Circ.811.			
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: (a) davit-launched lifeboats:	— Reg. III/4, Reg. X/3.		— Reg. III/21, — Reg. III/31,	— IMO Res. MSC.81(70),		B + D B + F

a Member States may apply Circular MSC.1/Circ.1393 of the IMO.

		— partially enclosed, — totally enclosed. (b) free-fall lifeboats: — totally enclosed.		— 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.1006.		
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), MSC/Circ.1006.	B + D B + F	[a]

a Member States may apply Circular MSC.1/Circ.1393 of the IMO.

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
A.1/1.20	Fast rescue boats: (a) inflated, (b) rigid, (c) rigid-inflated.	— Reg. III/4.	— Reg. III/26, — Reg. III/34, — IMO Res. MSC.48(66)-(LSA Code) I, V, — IMO MSC/Circ.1016, — IMO MSC/Circ.1094.	— IMO Res. MSC.81(70), — IMO MSC/Circ.1006, — ISO 15372 (2000).	B + D B + F
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.	— IMO Res. MSC.81(70).	B + D B + E B + F G

a Member States may apply Circular MSC.1/Circ.1393 of the IMO.

				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.		
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	— IMO Res. MSC.81(70).	B + D B + E B + F G	

a Member States may apply Circular MSC.1/Circ.1393 of the IMO.

				Code) 8.			
A.1/1.24	Liferaft launching appliances (davits)	—	Reg. III/4,	— Reg. III/12,	—	IMO Res. MSC.81(70).	B + D B + E B + F G
		—	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, VI,			
				— IMO Res. MSC.97(73)- (2000 HSC Code) 8.			
A.1/1.25	Fast rescue boat launching appliances (davits)	—	Reg. III/4.	— Reg. III/26,	—	IMO Res. MSC.81(70).	B + D B + E B + F G
				— Reg. III/34,			
				— IMO Res. MSC.48(66)- (LSA Code) I, VI.			
A.1/1.26	Release mechanism for: (a) lifeboats and rescue boats (launched by a fall	—	Reg. III/4,	— Reg. III/16,	—	IMO Res. MSC.81(70).	B + D B + E B + F
		—	Reg. X/3.	— Reg. III/34,			
				— IMO Res. MSC.36(63)- (1994 HSC			

a Member States may apply Circular MSC.1/Circ.1393 of the IMO.

	(b) or falls), liferafts (launched by a fall or falls).			— Code) 8, — IMO Res. MSC.48(66)- (LSA Code) I, IV, VI[a], — IMO Res. MSC.97(73)- (2000 HSC Code) 8.			
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 + D B + F G
A.1/1.28	Means of rescue	—	Reg. III/4.	— Reg. III/26, — Reg. III/34, — IMO Res.	—	IMO Res. MSC.81(70), IMO MSC/Circ.810.	B + D B + F

a Member States may apply Circular MSC.1/Circ.1393 of the IMO.

				MSC.48(66)-(LSA Code) I, VI.			
A.1/1.29	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 MSC.1/Circ.1285.	—	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	—	IMO Res. A.658(16).	B + D B + E B + F

a Member States may apply Circular MSC.1/Circ.1393 of the IMO.

			Code) 8.			
A.1/1.31	Survival craft two-way VHF radio telephone apparatus	Moved to A.1/5.17 and A.1/5.18				
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 (passive)	— 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).	— or — or — or	EN ISO 8729(B998), EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008). EN ISO 8729(1998), IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008). ISO 8729-1 (2010), EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008).	B + D B + E

a Member States may apply Circular MSC.1/Circ.1393 of the IMO.

						—	ISO 8729-1 (2010),		
						—	IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008).		
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. III/34,	—	IMO Res. MSC.48(66)- (LSA Code) IV, V.	IMO Res. MSC.81(70).	B + D B + E B + F
		—	Reg. X/3.	—	IMO Res. MSC.48(66)- (LSA Code) IV, V.				
A.1/1.37	Rescue boat propulsion engine — outboard motor	—	Reg. III/4,	—	Reg. III/34,	—	IMO Res. MSC.48(66)- (LSA Code) V.	IMO Res. MSC.81(70).	B + D B + E B + F
		—	Reg. X/3.	—	IMO Res. MSC.48(66)- (LSA Code) V.				
A.1/1.38	Searchlights for use in lifeboats and rescue boats	—	Reg. III/4,	—	Reg. III/34,	—	IMO Res. MSC.36(63)- (1994 HSC Code) 8, IMO Res. MSC.48(66)-	IMO Res. MSC.81(70).	B + D B + E B + F
		—	Reg. X/3.	—	IMO Res. MSC.48(66)- (LSA Code) V.				

a Member States may apply Circular MSC.1/Circ.1393 of the IMO.

				(LSA Code) I, IV, V, — IMO Res. MSC.97(73)- (2000 HSC Code) 8.			
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 (a) davit-launched lifeboats, (b) free-fall lifeboats, (c) liferafts,	— Reg. III/4, — Reg. X/3.	— — — — — —	Reg. III/16, Reg. III/17, Reg. III/23, Reg. III/24, Reg. III/34, IMO Res.	—	IMO Res. MSC.81(70).	B + D B + E B + F B + G

a Member States may apply Circular MSC.1/Circ.1393 of the IMO.

	(d) rescue boats, (e) fast rescue boats.		— 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.			
A.1/1.42	Pilot ladder	Moved to A.1/4.49				
A.1/1.43 Refer to note (b) of this Annex A.1	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

a Member States may apply Circular MSC.1/Circ.1393 of the IMO.

2. Marine pollution prevention

No	Item designation	Regulation Marpol 73/78, as amended, where 'type approval' is required	Regulations of Marpol 73/78, as amended, 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 G			
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			
A.1/2.8	On board NO_x analysers using the direct measurement and monitoring method of NO_x Technical Code 2008	—	IMO Res. MEPC.176(58) (Revised Marpol Annex VI, Reg. 13)	—	IMO Res. MEPC.176(58) (Revised Marpol Annex VI, Reg. 13); IMO Res. MEPC.177(58) (NO_x Technical Code 2008) or IMO MEPC.1/Circ.638.	—	IMO Res. MEPC.177(58) (NO_x Technical Code 2008) EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008). IMO Res. MEPC.177(58) (NO_x Technical Code 2008) IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008).	B + D B + E B + F G	—	—	—
A.1/2.9	Equipment using other technological methods to limit SO_x emissions	Moved to A.2/2.4									

A.1/2.10 Refer to note (c) of this Annex A.1	On board exhaust gas cleaning systems	—	IMO Res. MEPC.176(58) (Revised Marpol Annex VI, Reg. 4),	—	IMO Res. MEPC.176(58) (Revised Marpol Annex VI, Reg. 4).	—	IMO Res. MEPC.184(59).	B + D B + E B + F G	
		—	IMO Res. MEPC.184(59).						

3. **Fire protection equipment**

No	**Item designation**	**Regulation SOLAS 74, as amended, where 'type approval' is required**	**Regulations of SOLAS 74, as amended, 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.307(88)-(2010 FTP Code), IMO MSC/Circ.1102.	B + D B + E B + F
A.1/3.2	Portable fire extinguishers	— Reg. II-2/10, — Reg. X/3,	— Reg. II-2/4, — Reg. II-2/10,	— EN 3-7 (2004) including	B + D B + E B + F

		—	IMO Res. MSC.~~98~~(73)-(FSS Code)— 4.	— Reg. II-2/18, 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.	—	A.1 (2007), EN 3-8 (2006) including AC (2007), EN 3-9 (2006) including AC (2007), EN 3-10 (2009).	
A.1/3.3	Fire-fighter's outfit: protective clothing (close proximity clothing)	— — —	Reg. II-2/10, Reg. X/3, IMO Res. MSC.98(73)-(FSS Code) 3.	— IMO Res. MSC.36(63)-(1994 HSC Code) 7, — IMO Res. MSC.97(73)-(2000 HSC Code) 7,	Reg. II-2/10, IMO Res. — MSC.98(73)- Protective clothing for fire-fighting — Reflective	Protective clothing for fire-fighting: — EN 469 (2005) including A1 (2006) and AC (2006).	B + D B + E B + F

				— IMO Res. MSC.98(73)- (FSS Code) 3.	clothing for specialised fire-fighting: — Protective clothing for fire-fighting — Protective clothing with a reflective outer surface:	— EN 1486 (2007). — ISO 15538 (2001).	
A.1/3.4	Fire-fighter's outfit: boots	— Reg. II-2/10, — Reg. X/3, — IMO Res. MSC.98(73)- (FSS Code) 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) 3.	—	EN 15090 (2006),	B + D B + E B + F
A.1/3.5	Fire-fighter's outfit: gloves	— Reg. II-2/10, — Reg. X/3, — IMO Res. MSC.98(73)- (FSS Code) 3.		— Reg. II-2/10, — IMO Res. MSC.36(63)- (1994 HSC Code) 7, — IMO Res. MSC.97(73)- (2000	—	EN 659 (2003) including A1 (2008) and AC (2009).	B + D B + E B + F

					HSC Code) 7, — IMO Res. MSC.98(73)-(FSS Code) 3.			
A.1/3.6	Fire-fighter's outfit: helmet	— — —	Reg. II-2/10, Reg. X/3, IMO Res. MSC.98(73)-(FSS Code) 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) 3.	—	EN 443 (2008).	B + D B + E B + F
A.1/3.7	Self-contained compressed-air-operated breathing apparatus *Note:* For use in accidents involving dangerous goods a positive pressure type mask is required.	— — —	Reg. II-2/10, Reg. X/3, IMO Res. MSC.98(73)-(FSS Code) 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	— And where the apparatus is for use in accidents with cargo: —	EN 136 (1998) including AC (2003), EN 137 (2006). ISO 23269-3(2011).	B + D B + E B + F

				Code) 3. And where the apparatus is for use in accidents with cargo: — IMO Res. MSC.4(48)- (IBC Code) 14, — IMO Res. MSC.5(48)- (IGC Code) 14.			
A.1/3.8	Compressed air line breathing apparatus	— Reg. X/3. — IMO Res. MSC.36(63)- (1994 HSC Code) 7. *Note:* This equipment is only for high-speed craft built under provisions of the 1994 HSC Code.	—	IMO Res. MSC.36(63)- (1994 HSC Code) 7.	— —	EN 14593-1 (2005), EN 14593-2 (2005) including AC (2005), EN 14594 (2005) including AC (2005).	B + D B + E B + F
A.1/3.9	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	— Reg. II-2/7, — Reg. II-2/10, — Reg. X/3, — IMO Res. MSC.98(73)- (FSS Code) 8.	— — — — —	Reg. II-2/7, Reg. II-2/9, Reg. II-2/10, IMO Res. MSC.36(63)- (1994 HSC Code) 7, IMO Res. MSC.44(65),	—	IMO Res. A.800(19).	B + D B + E B + F

	and their performance). (Nozzles for fixed sprinkler systems, for high-speed craft (HSC) are included under this item)		— IMO Res. MSC.97(73)-(2000 HSC Code) 7, — IMO Res. MSC.98(73)-(FSS Code) 8, — IMO MSC/Circ.912.			
A.1/3.10	Nozzles for fixed pressure water spraying fire extinguishing systems for machinery spaces and cargo pump-rooms	— Reg. II-2/10, — Reg. X/3, — IMO Res. MSC.98(73)-(FSS Code) 7.	— 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.1/Circ.1313.	IMO MSC/Circ.1165, Appendix A.	B + D B + E B + F
A.1/3.11	‘A’ and ‘B’ class divisions fire integrity (a) ‘A’ class divisions, (b) ‘B’ class divisions.	‘A’ class: — Reg. II-2/3.2 ‘B’ class: — Reg. II-2/3.4.	— Reg. II-2/9, and, ‘A’ class: — Reg. II-2/3.2, IMO MSC/Circ. 1005 (for light	IMO Res. MSC.307(88)-(2010 FTP Code).	B + D B + E B + F

				weight constructions). ‘B’ class: — Reg. II-2/3.4.			
A.1/3.12	Devices to prevent the passage of flame into the cargo tanks in tankers	— Reg. II-2/4, — Reg. II-2/16.	— Reg. II-2/4, — Reg. II-2/16.		— EN 12874 (2001), — ISO 15364 (2007), — IMO MSC/Circ.677.	For equipment other than valves: B + D B + E B + F For valves: B + F
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.307(88)-(2010 FTP Code).	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,	— Reg. II-2/4, — Reg. X/3.	— Reg. II-2/4, — IMO Res. MSC.36(63)-(1994 HSC Code)	Pipes and fittings: — IMO Res. A.753(18). Valves:		B + D B + E B + F	

	(b) valves, (c) flexible pipe assemblies, (d) metallic pipe components with resilient and elastomeric seals.				7, 10, IMO Res. MSC.97(73)(2000 HSC Code) 7, 10, IMO MSC/Circ.1120.	— Flexible pipe assemblies: — EN ISO 15540 (2001) — EN ISO 15541 (2001). Metallic pipe components with resilient and elastomeric seals: — ISO 19921 (2005), — ISO 19922 (2005).		
A.1/3.16	Fire doors	—	Reg. II-2/9.	—	Reg. II-2/9.	—	IMO Res. MSC.307(88)-(2010 FTP Code). — IMO MSC.1/Circ.1319.	B + D B + E
A.1/3.17	Fire door control systems components.	— —	Reg. II-2/9, Reg. X/3.	— —	Reg. II-2/9, IMO Res. MSC.97(73)-(2000 HSC Code) 7.	—	IMO Res. MSC.307(88)-(2010 FTP Code).	B + D B + E B + F
A.1/3.18	Surface materials and floor coverings with low flame-spread characteristics	— — — —	Reg. II-2/3, Reg. II-2/5, Reg. II-2/6, Reg. II-2/9,	— — — —	Reg. II-2/3, Reg. II-2/5, Reg. II-2/6, Reg. II-2/9,	—	IMO Res. MSC.307(88)-(2010 FTP Code).	B + D B + E B + F

	(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. X/3.	— IMO Res. MSC.36(63)-(1994 HSC Code) 7, — IMO Res. MSC.97(73)-(2000 HSC Code) 7, — IMO MSC/Circ.1120.		
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.307(88)-(2010 FTP Code), IMO MSC/Circ.1102.	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	— IMO Res. MSC.307(88)-(2010 FTP Code), — IMO MSC/Circ.1102.	B + D B + E B + F

				Code) 7, — IMO Res. MSC.97(73)- (2000 HSC Code) 7.			
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.~~307~~(88)- (2010 FTP Code), IMO MSC/ Circ.1102.	B + D B + E
A.1/3.22	Fire dampers	— Reg. II-2/9.		— Reg. II-2/9.	—	IMO Res. MSC.307(88)- (2010 FTP Code).	B + D B + E B + F
A.1/3.23	Non-combustible duct penetrations through ‘A’ class divisions	Moved to A.1/3.26					
A.1/3.24	Electric cable transits through ‘A’ class divisions	Moved to A.1/3.26(a)					
A.1/3.25	‘A’ and ‘B’ class fire-proof	— Reg. II-2/9.		— Reg. II-2/9,	—	IMO Res. MSC.307(88)- (2010	B + D B + E B + F

	windows and side scuttles			—	IMO MSC/ Circ.1120.	FTP Code).	
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.307(88)-(2010 FTP Code).	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.307(88)-(2010 FTP Code).	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-2/7, 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	— or	ISO 6182-(2004) EN 12259-1 (1999) including A1 (2001), A2 (2004) and A3 (2006).	B + D B + E B + F

					Code) 8, — IMO MSC/ Circ.912.			
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
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) including IEC 60945 Corrigendum 1 (2008) or IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 60092-504 (2001) including IEC 60092-504 Corrigendum 1 (2011), IEC 60533 (1999),	B + D B + E B + Fxxx

				and as applicable to: (a) Category 1: (safe area): — EN 50104 (2010), — EN 60079-29-1 (2007). (b) Category 2: (explosive gas atmospheres): — EN 50104 (2010), — EN 60079-29-1 (2007), — EN 60079-0 (2009), — EN 60079-1 (2007) including IEC 60079-1 Corrigendum 1 (2008), — EN 60079-10-1 (2009), — EN 60079-11 (2007), — EN 60079-15 (2010), — EN 60079-26 (2007).	
A.1/3.31	Nozzles for fixed sprinkler systems, for	Item deleted as it is covered by A.1/3.9 and A.1/3.28			

	high-speed craft (HSC)						
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.307(88)-(2010 FTP Code).	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 MSC/Circ.1102.	—	IMO Res. MSC.307(88)-(2010 FTP Code).	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.307(88)-(2010 FTP Code).	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	—	IMO Res. MSC.307(88)-	B + D B + E B + F

				HSC Code) 7, — IMO Res. MSC.97(73)-(2000 HSC Code) 7.		(2010 FTP Code).	
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.1102.	—	IMO Res. MSC.307(88)-(2010 FTP Code).	B + D B + E B + F
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.307(88)-(2010 FTP Code).	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, — IMO Res. MSC.98(73)-(FSS Code) 4.		— Reg. III/34, — IMO Res. A.951(23), — IMO Res. MSC.36(63)-(1994 HSC	—	EN 3-7 (2004) including A1 (2007), EN 3-8 (2006) including	B + D B + E B + F

				Code) 8, — IMO Res. MSC.48(66)- (LSA Code) I, IV, V, — IMO Res. MSC.97(73)- (2000 HSC Code),' — IMO Res. MSC.98(73)- (FSS Code) 4, — IMO MSC.1/ Circ.1313.	—	AC (2007), EN 3-9 (2006) including AC (2007), EN 3-10 (2009).	
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.1/ Circ.1313.	—	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. A.752(18), IMO Res. MSC.98(73)-(FSS Code) 11.	— — —	IMO Res. A.752(18), ISO 15370 (2010).	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.	— — — — — — — —	ISO 23269-1 (2008), and alternatively: For self-contained open-circuit compressed air breathing apparatus with full mask or mouthed piece assembly for escape: EN 402(2003). For self-contained open-circuit compressed air breathing apparatus with a hood for escape: EN 1146(2005).	B + D B + E B + F

						—	For self-contained: closed-circuit compressed air breathing apparatus: EN 13794(2002).	
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.450 Rev.1, IMO MSC/ Circ.731, IMO MSC/ Circ.1120.	—	IMO MSC/ Circ.353.	B + D B + E B + F G
A.1/3.43	Nozzles for deep fat cooking equipment fire extinguishing systems (automatic or manual type).	— — —	Reg. II-2/1, Reg. II-2/10, Reg. X/3.	— — —	Reg. II-2/1, Reg. II-2/10, IMO Res. MSC.97(73)-(2000 HSC	—	ISO 15371 (2009).	B + D B + E B + F

						Code) 7.					
A.1/3.44	Fire-fighters outfit — lifeline	— — —	Reg. II-2/10, Reg. X/3, IMO Res. MSC.98(73)- (FSS Code) 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) 3.	— — —	IMO Res. MSC.98(73)- (FSS Code) 3, IMO Res. MSC.307(88)- (2010 FTP Code).	B + D B + E B + F			
A.1/3.45	Equivalent fixed gas fire extinguishing systems components (extinguishing medium, head valves and nozzles) for machinery spaces and cargo pump rooms	— — —	Reg. II-2/10, Reg. X/3, IMO Res. MSC.98(73)- (FSS Code) 5.	— — — —	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) 5, IMO MSC/ Circ.848, IMO MSC.1/ Circ.1313,	— — —	IMO MSC/ Circ.848, IMO MSC.1/ Circ.1317.	B + D B + E B + F			

				— IMO MSC.1/ Circ.1316, — IMO MSC.1/ Circ.1317.			
A.1/3.46	Equivalent fixed gas fire extinguishing systems for machinery spaces (aerosol systems)	— — —	Reg. II-2/10, Reg. X/3, IMO Res. MSC.98(73)-(FSS Code) 5.	— — IMO Res. MSC.98(73)-(FSS Code) 5, — IMO MSC.1/ Circ.1270, — IMO MSC.1/ Circ.1313.	Reg. II-2/10, IMO Res. MSC.36(63)-(1994 HSC Code) 7, IMO Res. MSC.97(73)-(2000 HSC Code) 7,	IMO MSC.1/ Circ.1270 including Corrigendum 1.	B + D B + E B + F
A.1/3.47	Concentrate for fixed high expansion foam fire extinguishing systems for machinery spaces and cargo pump rooms. *Note:* The fixed high expansion foam fire extinguishing system (including those systems	—	Reg. II-2/10.	— —	Reg. II-2/10, IMO Res. MSC.98(73)-(FSS Code) 6.	IMO MSC/ Circ.670.	B + D B + E B + F

	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.						
A.1/3.48	Fixed water-based local application fire-fighting systems components for use in category 'A' machinery spaces (nozzles and performance tests).	— 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 MSC.1/Circ.1387.	B + D B + E B + F
A.1/3.49	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)	— Reg. II-2/19, — Reg. II-2/20, — Reg. X/3.		— Reg. II-2/19, — Reg. II-2/20, — IMO Res. A.123(V), — IMO Res. MSC.36(63)-(1994 HSC Code) 7, — IMO Res. MSC.97(73)-		IMO MSC.1/Circ.1272.	B + D B + E B + F

				(2000 HSC Code) 7.			
A.1/3.50	Protective clothing resistant to chemical attack	Moved to A.2/3.9					
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	— Reg. II-2/7, — Reg. X/3, — IMO Res. MSC.98(73)-(FSS Code) 9.	— Reg. II-2/7, — 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) 9, — IMO MSC.1/Circ.1242, — IMO MSC.1/Circ.1313.	Control and indicating equipment. Electrical installations in ships: — EN 54-2 (1997) including AC(1999) and A1(2006). Power supply equipment: — EN 54-4 (1997) including AC(1999), A1(2002) and A2(2006). Heat detectors — Point detectors: — EN 54-5 (2000) including A1(2002). Smoke detectors — Point detectors using scattered light, transmitted light or ionisation:	B + D B + E B + F	

				— EN 54-7 (2000) including A1(2002) and A2(2006). Flame detectors — Point detectors: — EN 54-10 (2002) including A1(2005). Manual call points: — EN 54-11 (2001) including A1(2005). Short circuit isolators: — EN 54-17 (2007) including AC(2007). Input/output devices: — EN 54-18 (2005) including AC(2007). Cables: — EN 60332-1-1 (2004). And, as applicable, electrical and electronic installations in ships: — IEC 60092-504 (2001) including IEC 60092-504

						—	Corrigendum 1 (2011), IEC 60533 (1999).	
A.1/3.52	Non-portable and transportable fire extinguishers	— — —	Reg. II-2/10, Reg. X/3.	— — — — —	Reg. II-2/4, Reg. II-2/10, Reg. X/3, IMO Res. MSC.36(63)-(1994 HSC Code) 7, IMO Res. MSC.97(73)-(2000 HSC Code) 7.	— or — —	EN 1866-(2007) ISO 11601 (2008).	B + D B + E B + F
A.1/3.53	Fire alarm devices — Sounders	— — —	Reg. II-2/7, Reg. X/3, IMO Res. MSC.98(73)-(FSS Code) 9.	— — — — —	Reg. II-2/7, 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) 9, IMO MSC.1/Circ.1313.	Sounders: — — —	EN 54-3 (2001) including A1(2002) and A2(2006), IEC 60092-504 (2001) including IEC 60092-504 Corrigendum 1 (2011), IEC 60533 (1999).	B + D B + E B + F

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) including IEC 60945 Corrigendum 1 (2008) or IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — IEC 60092-504 (2001) including IEC 60092-504 Corrigendum 1 (2011), — IEC 60533 (1999), and as applicable to: (a) Category 4: (safe area): — EN 50104 (2010). (b) Category 3: (explosive gas atmospheres): — EN 50104 (2010), — EN 60079-0 (2009),	B + D B + E B + F			

							—		EN 60079-29-1 (2007).
A.1/3.55	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.	Hand-held branch pipes for fire service use — Combination branch pipes PN 16:	—	EN 15182-1 (2007) including A1(2009), EN 15182-2 (2007) including A1(2009).	B + D B + E B + F
						Hand-held branch pipes for fire service use — Smooth bore jet and/or one fixed spray jet angle branch pipes PN 16:	—	EN 15182-1 (2007) including A1(2009),	
							—	EN 15182-3 (2007) including A1(2009).	
A.1/3.56	Fire hoses (reel 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)-	—		EN 671-1 (2001) including AC (2002).	B + D B + E B + F

				(2000 HSC Code) 7.			
A.1/3.57	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	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.1313.		IMO MSC.1/Circ.1312.	B + D B + E B + F
A.1/3.59	Expansion foam for fixed fire extinguishing systems for chemical tankers	— —	Reg. II-2/1, 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	Nozzles for fixed pressure water-spraying fire-extinguishing systems	—	Reg. II-2/10.	— Reg. II-2/10, — IMO Res. MSC.98(73)-(FSS		IMO MSC.1/Circ.1268.	B + D B + E B + F

	for cabin balconies			—	Code) 7, IMO MSC.1/ Circ.1313.		
A.1/3.61	Inside air high expansion foam systems for the protection of machinery spaces and cargo pump rooms *Note:* 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 MSC.1/ Circ.1271.	B + D B + E B + F
A.1/3.62 Refer to note (c) of this Annex A.1	Dry chemical powder extinguishing systems	—	Reg. II-2/1.	— —	Reg. II-2/1, International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk: Chapter 11.	—	IMO MSC.1/ Circ.1315.	B + D B + E B + F

A.1/3.63 Ex. A.2/3.15	Sample extraction smoke detection systems components	— Reg. II-2/7, — Reg. II-2/19, — Reg. II-2/20.	— 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, and for: Control and indicating equipment. Electrical installations in ships: — EN 54-2 (1997) including AC(1999) and A1(2006). Power supply equipment: — EN 54-4 (1997) including AC(1999), A1(2002) and A2(2006). Aspiring smoke detectors: — EN 54-20 (2006) including AC(2008). And, as applicable, electrical and electronic installations in ships: — IEC 60092-504 (2001) including IEC 60092-504 Corrigendum 1 (2011),	B + D B + E B + F

					— IEC 60533 (1999). And, as applicable for explosive atmospheres: — EN 60079-0 (2009).		
A.1/3.64 Ex. A.2/3.25	'C' class divisions	—	Reg. II-2/3.	—	Reg. II-2/3.	— IMO Res. MSC.307(88)-(2010 FTP Code).	B + D B + E B + F
A.1/3.65 (New item)	Fixed hydrocarbon gas detection system	—	Reg. II-2/4.	— — — —	Reg. II-2/4, IMO Res. MSC.98(73)-(FSS Code)16, IMO MSC.1/ Circ.1370.	— — — — IMO MSC.1/ Circ.1370, EN 60079-29-1 (2007), IEC 60092-504 (2001) including IEC 60092-504 Corrigendum 1 (2011), IEC 60533 (1999), EN/ IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008).	B + D B + E B + F
A.1/3.66 (New item)	Evacuation guidance systems used as an alternative to low-location	—	Reg. II-2/13.	— —	Reg. II-2/13, IMO MSC.1/ Circ.1168.	— IMO MSC.1/ Circ.1168.	B + D B + E B + F

	lighting systems				

4. Navigation equipment

Notes applicable to Section 4: Navigation equipment.

Column 5:

IEC 61162 series refer to the following reference standards for Maritime navigation and radiocommunication equipment and systems — Digital interfaces:

(a) IEC 61162-1 ed4.0 (2010-11) — Part 1: Single talker and multiple listeners

(b) IEC 61162-2 ed1.0 (1998-09) — Part 2: Single talker and multiple listeners, high-speed transmission

(c) IEC 61162-3 ed1.1 Consol. with am1 (2010-11) — Part 3: Serial data instrument network
- IEC 61162-3 ed1.0 (2008-05) — Part 3: Serial data instrument network
- IEC 61162-3-am1 ed1.0 (2010-06) Amendment 1 — Part 3: Serial data instrument network

(d) IEC 61162-400 ed1.0 (2001-11) — Part 400: Multiple talkers and multiple listeners — Ship systems interconnection — Introduction and general principles
- IEC 61162-401 ed1.0 (2001-11) — Part 401: Multiple talkers and multiple listeners — Ship systems interconnection — Application profile
- IEC 61162-402 ed1.0 (2005-09) — Part 402: Multiple talkers and multiple listeners — Ship systems interconnection — Documentation and test requirements
- IEC 61162-410 ed1.0 (2001-11) — Part 410: Multiple talkers and multiple listeners — Ship systems interconnection — Transport profile requirements and basic transport profile
- IEC 61162-420 ed1.0 (2001-11) — Part 420: Multiple talkers and multiple listeners — Ship systems interconnection — Companion standard requirements and basic companion standards
- IEC 61162-450 ed1.0 (2011-06) — Part 450: Multiple talkers and multiple listeners — Ethernet interconnection

EN 61162 series refer to the following reference standards for Maritime navigation and radiocommunication equipment and systems — Digital interfaces:

(a) EN 61162-1 (2011) — Part 1: Single talker and multiple listeners

(b) EN 61162-2 (1998) — Part 2: Single talker and multiple listeners, high-speed transmission

(c) EN 61162-3 (2008) — Part 3: Serial data instrument network
- EN 61162-3-am1 (2010) Amendment 1 — Part 3: Serial data instrument network

(d) EN 61162-400 (2002) — Part 400: Multiple talkers and multiple listeners — Ship systems interconnection — Introduction and general principles

— EN 61162-401 (2002) — Part 401: Multiple talkers and multiple listeners — Ship systems interconnection — Application profile
— EN 61162-402 (2005) — Part 402: Multiple talkers and multiple listeners — Ship systems interconnection — Documentation and test requirements
— EN 61162-410 (2002) — Part 410: Multiple talkers and multiple listeners — Ship systems interconnection — Transport profile requirements and basic transport profile
— EN 61162-420 (2002) — Part 420: Multiple talkers and multiple listeners — Ship systems interconnection — Companion standard requirements and basic companion standards
— EN 61162-450 (2011) — Part 450: Multiple talkers and multiple listeners — Ethernet interconnection

No	**Item designation**	**Regulation SOLAS 74, as amended, where 'type approval' is required**	**Regulations of SOLAS 74, as amended, 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 (a) Class A for ships, (b) Class B for lifeboats and rescue boats.	— Reg. V/18.	— Reg. V/19, — IMO Res. A.382(X), — IMO Res. A.694(17).	— ISO 10690 (1973), — ISO 25862 (2009), — EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008). or — ISO 10690 (1973), — ISO 25862 (2009), — IEC 60945	B + D B + E B + F G

										(2002) including IEC 60945 Corrigendum 1 (2008).	
A.1/4.2	Transmitting heading device THD (magnetic method)	—	Reg. V/18,	—	Reg. V/19,	—				EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series; ISO 22090-2 (2004), including Corrigendum 2005, EN 62288 (2008).	B + D B + E B + F G
		—	Reg. V/19,	—	IMO Res. A.694(17),						
		—	Reg. X/3,	—	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).	—				IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61162 series.	
						—				ISO 22090-2 (2004), including Corrigendum 2005,	
						—				IEC 62288 Ed.1.0(2008).	

A.1/4.3	Gyro compass	— Reg. V/18.	— Reg. V/19, — IMO Res. A.424(~~X~~XI), — IMO Res. A.694(17), — IMO Res. MSC.191(79).	— EN ISO 8728 (1998), EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — EN 61162 series, — EN 62288 (2008). or — ISO 8728 (1997), — IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — 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	— Reg. V/19, — IMO Res. A.224(VII), — IMO Res. A.694(17),	— EN ISO 9875 (2001) including ISO Technical Corrigendum	B + D B + E B + F G		

			HSC Code) 13, — IMO Res. MSC.97(73)-(2000 HSC Code) 13.	— — — —	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).	— — — — — —	1: 2006, EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series, EN 62288 (2008). or ISO 9875 (2000) including ISO Technical Corrigendum 1: 2006, IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61162 series, IEC 62288 Ed.1.0(2008).	
A.1/4.7	Speed and distance measuring equipment (SDME)	— — —	Reg. V/18, Reg. X/3, IMO Res. MSC.36(63)-(1994 HSC	— — —	Reg. V/19, IMO Res. A.694(17), IMO Res. A.824(19), IMO Res.	— — —	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008),	B + D B + E B + F G

			Code) 13,		MSC.~~36~~(63)- (1994 HSC Code) 13,		EN 61023 (2007),				
		—	IMO Res. MSC.~~97~~(73)- (2000 HSC Code) 13.	—	IMO Res. MSC.96(72), or MSC.~~97~~(73)- (2000 HSC Code) 13,	—	EN 61162 series,				
				—	IMO Res. MSC.191(79).	—	EN 62288 (2008).				
							IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008),				
						—	IEC 61023 (2007),				
						—	IEC 61162 series,				
						—	IEC 62288 Ed.1.0(2008).				
A.1/4.8	Rudder angle, rpm, pitch indicator	Moved to A.1/4.20, A.1/4.21 and A.1/4.22									
A.1/4.9	Rate-of-turn indicator	—	Reg. V/18,	—	Reg. V/19,	—	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series, ISO 20672 (2007), EN 62288 (2008).	B + D	B + E	B + F	G
		—	Reg. X/3,	—	IMO Res. A.526(13), 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.36(63)- (1994 HSC Code) 13, IMO Res. MSC.97(73)- (2000 HSC Code) 13.	—		—					
						—					
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						—					
						—					
						or					
						—	IEC 60945				

			Code) 13, — IMO Res. MSC.191(79).	(2002) including IEC 60945 Corrigendum 1 (2008), — IEC 61162 series, — ISO 20672 (2007), — IEC 62288 Ed.1.0(2008).	
A.1/4.10	Direction finder	Deliberately left blank			
A.1/4.11	Loran-C 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. A.818(19), — IMO Res. MSC.36(63)-(1994 HSC Code) 13, — IMO Res. MSC.97(73)-(2000 HSC Code) 13, — IMO Res. MSC.191(79).	— EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — EN 61075 (1993), — EN 61162 series, — EN 62288 (2008). or — IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — IEC 61075 (1991), — IEC 61162 series,	B + D B + E B + F G

				— IEC 62288 Ed.1.0(2008).	
A.1/4.12	Chayka 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. A.818 (19), — IMO Res. MSC.~~36~~(63)-(1994 HSC Code) 13, — IMO Res. MSC.~~97~~(73)-(2000 HSC Code) 13, — IMO Res. MSC.191(79).	— EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — EN 61075 (1993), EN 61162 series, — EN 62288 (2008). or IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — IEC 61075 (1991), — IEC 61162 series, — IEC 62288 Ed.1.0(2008).	B + D B + E B + F G
A.1/4.13	Decca navigator equipment	Deliberately left blank			
A.1/4.14	GPS equipment	— Reg. V/18, — Reg. X/3, — IMO Res. MSC.36(63)-(1994	— Reg. V/19, — IMO Res. A.694(17), — IMO Res. MSC.36(63)-	— EN 60945 (2002) including IEC 60945 Corrigendum	B + D B + E B + F G

			HSC Code) 13,		(1994 HSC Code),		1 (2008),				
		—	IMO Res. MSC.97(73)- (2000 HSC Code) 13.	—	IMO Res. MSC.97(73)- (2000 HSC Code), IMO Res. MSC.112(73), IMO Res. MSC.191(79).	—	EN 61108-1 (2003), EN 61162 series, EN 62288 (2008). IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61108-1 (2003), IEC 61162 series, IEC 62288 Ed.1.0(2008).				
A.1/4.15	GLONASS 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.113(73),	— — — or	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61108-2 (1998), EN 61162 series, EN 62288 (2008). IEC 60945 (2002)	B + D B + E B + F G			

			—	IMO Res. MSC.191(79).		including IEC 60945 Corrigendum 1 (2008), — IEC 61108-2 (1998), — IEC 61162 series, — IEC 62288 Ed.1.0(2008).	
A.1/4.16	Heading control system (HCS)	— Reg. V/18.	— Reg. V/19, — IMO Res. A.342(IX), — IMO Res. A.694(17), — IMO Res. MSC.64(67) Annex 3, — IMO Res. MSC.~~19~~1(79).	—	or — ISO 11674 (2006), — IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — IEC 61162 series, — IEC 62288 Ed.1.0(2008).	— ISO 11674 (2006), — EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — EN 61162 series, — EN 62288 (2008).	B + D B + E B + F G

A.1/4.17	Mechanical pilot hoist	Moved to A.1/1.40			
A.1/4.18	9 GHz SAR transponder (SART)	— Reg. III/4, — Reg. IV/14, — 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. III/6, — Reg. IV/7, — IMO Res. A.530(13), — IMO Res. A.802(19), — IMO Res. A.694(17), — IMO Res. MSC.36(63)-(1994 HSC Code) 8, 14, — IMO Res. MSC.97(73)-(2000 HSC Code) 8, 14, — ITU-R M.628-3(11/93).	— EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61097-1 (2007). — IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — IEC 61097-1 (2007).	B + D B + E B + F G
A.1/4.19	Radar equipment for high-speed craft	Moved to A.1/4.37			
A.1/4.20	Rudder angle indicator	— Reg. V/18, — Reg. X/3, — IMO Res. MSC.36(63)-(1994 HSC Code) 13, — IMO Res.	— Reg. V/19, — IMO Res. A.694(17), — IMO Res. MSC.36(63)-(1994 HSC Code) 13,	— EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — EN 61162 series,	B + D B + E B + F G

				MSC.~~97~~(73)-(2000 HSC Code) 13.		IMO Res. MSC.97(73)-(2000 HSC Code) 13, or IMO Res. MSC.191(79).	—	ISO 20673 (2007), EN 62288 (2008). IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61162 series, ISO 20673 (2007), IEC 62288 Ed.1.0(2008).	
A.1/4.21	Propeller revolution indicator	—	Reg. V/18,	—	Reg. V/19,	—	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series, ISO 22554 (2007), EN 62288 (2008). IEC 60945 (2002) including IEC 60945 Corrigendum	B + D B + E B + F G	
		—	Reg. X/3,	—	IMO Res. A.694(17),				
		—	IMO Res. MSC.36(63)-(1994 HSC Code) 13,	—	IMO Res. MSC.36(63)-(1994 HSC Code) 13,	—			
		—	IMO Res. MSC.97(73)-(2000 HSC Code) 13.	—	IMO Res. MSC.97(73)-(2000 HSC Code) 13, or IMO Res. MSC.191(79).	—			

							1 (2008), — IEC 61162 series, — ISO 22554 (2007), — IEC 62288 Ed.1.0(2008).	
A.1/4.22	Pitch indicator	— 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.191(79).	— or —		EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series, ISO 22555 (2007), EN 62288 (2008). IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — IEC 61162 series, — ISO 22555 (2007), — IEC 62288 Ed.1.0(2008).	B + D B + E B + F G
A.1/4.23	Compass for lifeboats and rescue boats	— Reg. III/4, — Reg. X/3,		— Reg. III/34, — IMO Res.	—		ISO 25862 (2009)	B + D B + E B + F G

		— IMO Res. MSC.36(63)-(1994 HSC Code) 13, — IMO Res. MSC.97(73)-(2000 HSC Code) 13.	MSC.48(66)-(LSA Code) IV, V, — IMO Res. MSC.36(63)-(1994 HSC Code) 8, 13, — IMO Res. MSC.97(73)-(2000 HSC Code) 8, 13.		
A.1/4.24	Automatic radar plotting aid (ARPA) for high-speed craft	Moved to A.1/4.37			
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)	— Reg. V/18, — Reg. V/20, — Reg. X/3, — IMO Res. MSC.36(63)-(1994 HSC	— Reg. V/20, — IMO Res. A.694 (17), — IMO Res. A.861 (20),	— EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008),	B + D B + E B + F G

			Code) 13, — IMO Res. MSC.97(73)-(2000 HSC Code) 13.	— —	IMO Res. MSC.36(63)-(1994 HSC Code) 13, IMO Res. MSC.97(73)-(2000 HSC Code) 13, — IMO Res. MSC.191(79)	— — — or — — — — —	EN 61162 series, EN 61996-1 (2008), EN 62288 (2008). or IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61162 series, IEC 61996-1 (2007-11), IEC 62288 Ed.1.0(2008).
A.1/4.30	Electronic chart display and information system (ECDIS) with backup, and raster chart display system (RCDS)	— — — — —	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.191(79),	— — — — — or — — —	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series, EN 61174 (2008), EN 62288 (2008). or IEC 60945 (2002) including IEC	B + D B + E B + F G

				— IMO Res. MSC.232(82), — IMO SN.1/Circ.266. [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.]			60945 Corrigendum 1 (2008), IEC 61162 series, IEC 61174 (2008), IEC 62288 Ed.1.0(2008).	
A.1/4.31	Gyro compass 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.821(19), — IMO Res. MSC.36(63)-(1994 HSC Code) 13, — IMO Res. MSC.97(73)-(2000 HSC Code) 13, — IMO Res. MSC.~~19~~1(79).	—	ISO 16328 (2001), EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series, EN 62288 (2008). or ISO 16328 (2001), IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008),	B + D B + E B + F G

						—	IEC 61162 series,	
						—	IEC 62288 Ed.1.0(2008).	
A.1/4.32	Universal automatic identification system equipment (AIS)	— — — — —	Reg. V/18, Reg. X/3, IMO Res. MSC.~~36~~(63)-(1994 HSC Code) 13, IMO Res. MSC.~~97~~(73)-(2000 HSC Code) 13.	— — — — — *Note:* ITU-R M. 1371-4(2010) shall only be applicable in accordance with requirements of IMO Res.MSC.74(69).	Reg. V/19, IMO Res. A.694 (17), IMO Res. MSC.36(63)-(1994 HSC Code) 13, IMO Res. MSC.~~74~~(69), IMO Res. MSC.~~97~~(73)-(2000 HSC Code) 13, IMO Res. MSC.191(79), ITU-R M.1371~~-1~~-4(2010)	— — — — — — —	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series, EN 61993-2 (2001), EN 62288 (2008). IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61162 series, IEC 61993-2 (2001), IEC 62288 Ed.1.0(2008).	B + D B + E B + F G
A.1/4.33	Track control system (working at ship's speed from minimum manoeuvring	—	Reg. V/18.	— —	Reg. V/19, IMO Res. A.694(17),	—	EN 60945 (2002) including IEC 60945 Corrigendum	B + D B + E B + F G

	speed up to 30 knots)			— IMO Res. MSC.~~74~~(69), — IMO Res. MSC.~~191~~(79).		1 (2008), EN 61162 series, EN 62065 (2002), — EN 62288 (2008). or — IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — IEC 61162 series, — IEC 62065 (2002), — IEC 62288 Ed.1.0(2008).	
A.1/4.34	Radar equipment CAT 1	— Reg. V/18.		— Reg. V/19. — IMO Res. A.278(VIII), — IMO Res. A.694(17), — IMO Res. A.823(19), — IMO Res. MSC.191(79), — IMO Res. MSC.192(79), — ITU-R M.1177-3(06/03).	—	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series, EN 62288 (2008), EN 62388 (2008). or IEC 60945 (2002)	B + D B + E B + F G

					including IEC 60945 Corrigendum 1 (2008), — IEC 61162 series, — IEC 62288 Ed.1.0(2008). — IEC 62388 Ed.1.0(2007).	
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.1177-3(06/03).	— or —	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series, EN 62288 (2008), EN 62388 (2008). IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — 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.1177-3(06/03)	— EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — EN 61162 series, — EN 62288 (2008), — EN 62388 (2008). or — IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — 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 and CAT 2H)	— Reg. X/3, — IMO Res. MSC.36(63)-(1994 HSC Code) 13, — IMO Res. MSC.97(73)-(2000 HSC	— IMO Res. A.278(VIII), — IMO Res. A.694(17), — IMO Res. MSC.36(63)-(1994 HSC Code) 13, — IMO Res.	— EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — EN 61162 series, — EN 62288 (2008),	B + D B + E B + F G

			Code) 13.		MSC.~~97~~(73)-(2000 HSC Code) or 13, — IMO Res. MSC.191(79), — IMO Res. MSC.192(79), — ITU-R M.1177-3(06/03).	— — IEC 60945 (2002) including Corrigendum 1 (2008), — IEC 61162 series, — IEC 62288 Ed.1.0(2008). — IEC 62388 Ed.1.0(2007).	EN 62388 (2008).	
A.1/4.38	Radar equipment approved with a chart option, namely: (a) CAT 1C, (b) CAT 2C, (c) CAT 1HC for HSC, (d) CAT 2HC for HSC.	— — —	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. MSC.36(63)-(1994 HSC Code) 13, IMO Res. MSC.~~97~~(73)-(2000 HSC Code) or 13, IMO Res. MSC.191(79), IMO Res. MSC.192(79), ITU-R M.1177-3(06/03).	— — — — —	EN 60945 (2002) including Corrigendum 1 (2008), EN 61162 series, EN 62288 (2008), EN 62388 (2008). IEC 60945 (2002) including Corrigendum 1 (2008),	B + D B + E B + F G

							— IEC 61162 series, — IEC 62288 Ed.1.0(2008), — IEC 62388 Ed.1.0(2007).		
A.1/4.39	Radar reflector — passive type	— — —	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).	—	ISO 8729-(2010), EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008). ISO 8729-1 (2010), IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008).	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	—	ISO 16329 (2003), EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series, EN 62288 (2008).	B + D B + E B + F G	

					Code) 13, — IMO Res. MSC.~~19~~1(79).	or —	ISO 16329 (2003), IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — IEC 61162 series, — IEC 62288 Ed.1.0(2008).	
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.~~19~~1(79).	— — — — or	ISO 22090-3 (2004) including ISO Corrigendum 1 (2005), EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series, EN 62288 (2008). ISO 22090-3 (2004) including ISO Corrigendum 1 (2005),	B + D B + E B + F G

						—	IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — IEC 61162 series, — IEC 62288 Ed.1.0(2008).		
A.1/4.42	Searchlight 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. MSC.36(63)-(1994 HSC Code) 13, IMO Res. MSC.97(73)-(2000 HSC Code) 13.	— — —	ISO 17884 (2004), IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008).	B + D B + E B + F G	
A.1/4.43	Night vision equipment for high-speed craft	— — —	Reg. X/3, IMO Res. MSC.36(63)-(1994 HSC Code) 13, IMO Res. MSC.97(73)-	— — —	IMO Res.A.694(17), IMO Res. MSC.36(63)-(1994 HSC Code) 13, IMO Res. MSC.94(72),	— —	ISO 16273 (2003), EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008).	B + D B + E B + F G	

			(2000 HSC Code) 13.	—	IMO Res. MSC.97(73)-(2000 HSC Code) 13.	or —	ISO 16273 (2003), IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008).	
A.1/4.44	Differential beacon receiver for DGPS and 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).	— — or — — —	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61108-4 (2004), EN 61162 series. IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61108-4 (2004), IEC 61162 series.	B + D B + E B + F G
A.1/4.45	Chart facilities for shipborne radar	Item deleted, as it is covered by A.1/4.38						
A.1/4.46	Transmitting heading device THD	—	Reg. V/18.	—	Reg. V/19,	—	ISO 22090-3 (2002)	B + D B + E B + F

	(gyroscopic method)	— — — —	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. 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).	— — — — — — — or —	including Corr.1 (2005), EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series, EN 62288 (2008). ISO 22090-1 (2002) including Corr.1 (2005), IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61162 series, IEC 62288 Ed.1.0(2008).	G
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) including IEC 60945 Corrigendum 1 (2008), EN 61162 series,	B + D B + E B + F G

					— EN 61996-2 (2008), — EN 62288 (2008). or — IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — IEC 61162 series, — IEC 61996-2 (2007), — IEC 62288 Ed.1.0(2008).		
A.1/4.48	Mechanical pilot hoist	Deliberately left blank (as IMO Res. MSC.308(88), in force on 1 July 2012, quotes: ‘Mechanical pilot hoists shall not be used’)					
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	DGPS equipment	— Reg. V/18, — Reg. X/3, — IMO Res. MSC.~~36~~(63)-(1994 HSC Code) 13, — IMO Res. MSC.~~97~~(73)-(2000	— Reg. V/19, — IMO Res. A.694 (17), — IMO Res. MSC.36(63)-(1994 HSC Code) 13, — IMO Res.	— EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — EN 61108-1 (2003), — EN 61108-4 (2004),		B + D B + E B + F G	

			HSC Code) 13.		MSC.~~97~~(73)-(2000 HSC Code) 13, — IMO Res. MSC.~~112~~(73), — IMO Res. MSC.114(73), — IMO Res. MSC.191(79).	— or — — — —	EN 61162 series, EN 62288 (2008). IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61108-1 (2003), IEC 61108-4 (2004), IEC 61162 series, IEC 62288 Ed.1.0(2008).
A.1/4.51	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.~~113~~(73),	— — — — or	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61108-2 (1998), EN 61108-4 (2004), EN 61162 series, EN 62288 (2008). IEC 60945	B + D B + E B + F G

				— IMO Res. MSC.114(73), — IMO Res. MSC.191(79).			(2002) including IEC 60945 Corrigendum 1 (2008), — IEC 61108-2 (1998), — IEC 61108-4 (2004), — IEC 61162 series, — IEC 62288 Ed.1.0(2008).
A.1/4.52 Refer to note (b) of this Annex A.1	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).	— or —	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), ISO 25861 (2007). IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — ISO 25861 (2007).	B + D B + E B + F
A.1/4.53 Refer to note (c) of this Annex A.1	Radar target enhancer	— Reg. V/18, — Reg. X/3, — IMO Res. MSC.36(63)-(1994		— IMO Res. A.694(17), — IMO Res. MSC.36(63)-(1994 HSC	— —	ISO 8729-2 (2009), EN 60945 (2002) including IEC	B + D B + E B + F G

			HSC Code) 13, — IMO Res. MSC.97(73)-(2000 HSC Code) 13.		Code) 13, IMO Res. MSC.97(73)-(2000 HSC Code) 13, IMO Res. MSC.164(78), ITU-R M.1176 (10/95)		60945 Corrigendum 1 (2008).	
A.1/4.54 Refer to note (c) of this Annex A.1	Bearing device	—	Reg. V/18.	—	Reg. V/19.	— — or — —	ISO 25862 (2009), EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008). or ISO 25862 (2009), IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008),.	B + D B + E B + F G
A.1/4.55 Refer to note (c) of this Annex A.1	AIS SART equipment	— —	Reg. III/4, Reg. IV/14.	— — —	Reg. III/6, Reg. IV/7, IMO Res. MSC.246(83), IMO Res. MSC.247(83),	—	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008),	B + D B + E B + F G

				— IMO Res. MSC.256(84), — ITU-R M.1371-4(2010), or		— EN 61097-14 (2010), — EN 61162 series.		
						— IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — IEC 61097-14 (2010), — IEC 61162 series.		
A.1/4.56 Refer to note (c) of this Annex A.1	Galileo receiver	— 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.813(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.233(82).	—	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61108-3 (2010), EN 61162 series, EN 62288 (2008). or IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008),	B + D B + E B + F G	

					— IEC 61108-3 (2010), — IEC 61162 series, — IEC 62288 Ed.1.0(2008).	
A.1/4.57 Refer to note (c) of this Annex A.1	Bridge navigational watch alarm system (BNWAS)	— Reg. V/18.	— IMO Res. A.694(17), — IMO Res. MSC.128(75), — IMO Res. MSC.191(79).	—	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — EN 61162 series, — EN 62288 (2008), — IEC 62616(2010). or — IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — IEC 61162 series, — IEC 62288 Ed.1.0(2008), — IEC 62616(2010).	B + D B + E B + F G

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.

Column 5:

IEC 61162 series refer to the following reference standards for Maritime navigation and radiocommunication equipment and systems — Digital interfaces:

(a) IEC 61162-1 ed4.0 (2010-11) — Part 1: Single talker and multiple listeners

(b) IEC 61162-2 ed1.0 (1998-09) — Part 2: Single talker and multiple listeners, high-speed transmission

(c) IEC 61162-3 ed1.1 Consol. with am1 (2010-11) — Part 3: Serial data instrument network
- — IEC 61162-3 ed1.0 (2008-05) — Part 3: Serial data instrument network
- — IEC 61162-3-am1 ed1.0 (2010-06) Amendment 1 — Part 3: Serial data instrument network

(d) IEC 61162-400 ed1.0 (2001-11) — Part 400: Multiple talkers and multiple listeners — Ship systems interconnection — Introduction and general principles
- — IEC 61162-401 ed1.0 (2001-11) — Part 401: Multiple talkers and multiple listeners — Ship systems interconnection — Application profile
- — IEC 61162-402 ed1.0 (2005-09) — Part 402: Multiple talkers and multiple listeners — Ship systems interconnection — Documentation and test requirements
- — IEC 61162-410 ed1.0 (2001-11) — Part 410: Multiple talkers and multiple listeners — Ship systems interconnection — Transport profile requirements and basic transport profile
- — IEC 61162-420 ed1.0 (2001-11) — Part 420: Multiple talkers and multiple listeners — Ship systems interconnection — Companion standard requirements and basic companion standards
- — IEC 61162-450 ed1.0 (2011-06) — Part 450: Multiple talkers and multiple listeners — Ethernet interconnection

EN 61162 series refer to the following reference standards for Maritime navigation and radiocommunication equipment and systems — Digital interfaces:

(a) EN 61162-1 (2011) — Part 1: Single talker and multiple listeners

(b) EN 61162-2 (1998) — Part 2: Single talker and multiple listeners, high-speed transmission

(c) EN 61162-3 (2008) — Part 3: Serial data instrument network
- — EN 61162-3-am1 (2010) Amendment 1 — Part 3: Serial data instrument network

(d) EN 61162-400 (2002) — Part 400: Multiple talkers and multiple listeners — Ship systems interconnection — Introduction and general principles
- — EN 61162-401 (2002) — Part 401: Multiple talkers and multiple listeners — Ship systems interconnection — Application profile
- — EN 61162-402 (2005) — Part 402: Multiple talkers and multiple listeners — Ship systems interconnection — Documentation and test requirements

— EN 61162-410 (2002) — Part 410: Multiple talkers and multiple listeners — Ship systems interconnection — Transport profile requirements and basic transport profile

— EN 61162-420 (2002) — Part 420: Multiple talkers and multiple listeners — Ship systems interconnection — Companion standard requirements and basic companion standards

— EN 61162-450 (2011) — Part 450: Multiple talkers and multiple listeners — Ethernet interconnection

No	Item designation	Regulation SOLAS 74, as amended, where 'type approval' is required	Regulations of SOLAS 74, as amended, 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	— IMO MSC/Circ.862, — EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series, ETSI EN 300 338-1 V1.3.1 (2010-02), ETSI EN 300 338-2 V1.3.1 (2010-02), ETSI EN	B + D B + E B + F

								Code) 14, — IMO MSC/ Circ.862, — IMO Comsar Circ.32, — ITU-R M.489-2 (10/95), — ITU-R M.493-13 (10/09), — ITU-R M.541-9 (05/04), — ITU-R M.689-2 (09/94).		301 843-2 V1.2.1 (2004-06), ETSI EN 301 925 V1.3.1 (2010-09). IMO MSC/ Circ.862, IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61097-3 (1994), — IEC 61097-7 (1996), — IEC 61162 series.	
A.1/5.2	VHF DSC watchkeeping receiver	— 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/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.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.	—	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series, ETSI EN 300 338-1 V1.3.1 (2010-02), ETSI EN	B + D B + E B + F

					(2000 HSC Code) 14, — IMO Comsar Circ.32, — ITU-R M.489-2 (10/95), — ITU-R M.493-13 (10/09), — ITU-R M.541 or 9 (05/04).	300 338-2 V1.3.1 (2010-02), ETSI EN 301 033 V1.3.1 (2010-09), ETSI EN 301 843-2 V1.2.1 (2004-06). IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — IEC 61097-3 (1994), — IEC 61097-8 (1998), — IEC 61162 series.
A.1/5.3	Navtex receiver	— Reg. IV/14, — Reg. X/3, — IMO Res. MSC.36(63)-(1994 HSC Code) 14, — IMO Res. MSC.97(73)-(2000 HSC	— Reg. IV/7, — Reg. X/3, — IMO Res. A.694(17), — IMO Res. MSC.36(63)-(1994 HSC Code) 14, — IMO Res. MSC.97(73)-	—	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), ETSI EN 300 065-1 V1.2.1 (2009-01), ETSI EN	B + D B + E B + F

			Code) 14.	(2000 HSC Code) 14, — IMO Res. MSC.148(77), — IMO Comsar Circ.32, — ITU-R M.540-2 (06/90), — ITU-R M.625-3 (10/95).	301 843-4 V1.2.1 (2004-06). IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61097-6 (2005-12).
A.1/5.4	EGC receiver	— 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.570(14), — IMO Res. A.664~~(16)~~, — IMO Res. A.694(17), — IMO Res. MSC.~~36~~(63)-(1994 HSC Code) 14, — IMO Res. MSC.97(73)-(2000 HSC Code) 14, — IMO Comsar Circ.32.	— B + D B + E B + F or	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), ETSI ETS 300 460 Ed.1 (1996-05), ETSI ETS 300 460/A1 (1997-11), ETSI EN 300 829 V1.1.1 (1998-03), ETSI EN 301 843-1 V1.2.1 (2004-06). or

						—	IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008),
						—	IEC 61097-4 (2007).
A.1/5.5	HF marine safety information (MSI) equipment (HF NBDP receiver)	—	Reg. IV/14,	—	Reg. IV/7,	—	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series, ETSI ETS 300 067 Ed.1 (1990-11), ETSI ETS 300 067/ A1 Ed.1 (1993-10). IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61162 series, ETSI ETS
		—	Reg. X/3,	—	Reg. X/3,		
		—	IMO Res. MSC.36(63)-(1994 HSC Code) 14,	—	IMO Res. A.694(17),		
				—	IMO Res. A.699(17),		
		—	IMO Res. MSC.97(73)-(2000 HSC Code) 14	—	IMO Res. A.700(17),		
				—	IMO Res. A.806(19),		
				—	IMO Res. MSC.36(63)-(1994 HSC Code) 14,		
				—	IMO Res. MSC.97(73)-(2000 HSC Code) 14,	—	
				—	IMO Comsar Circ.32,		
				—	ITU-R M.491–1 (07/86),		
				—	ITU-R	—	

			M.492-6 (10/95), — ITU-R M.540-2 (06/90), — ITU-R M.625-3 (10/95), — ITU-R M.688 (06/90).	300 067 Ed.1 (1990-11), ETSI ETS 300 067/A1 Ed.1 (1993-10).	
A.1/5.6	406 MHz EPIRB (Cospas-Sarsat)	— 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.662(16), — IMO Res. A.694(17), — IMO Res. A.696(17), — IMO Res. A.810(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	— IMO MSC/Circ.862, — EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), ETSI EN 300 066 V 1.3.1 (2001-01). or — IMO MSC/Circ.862, — IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61097-2 (2008). *Note:* IMO MSC/Circ. 862 is	B + D B + E B + F

			M.633-3 (05/04), — ITU-R M.690-1 (10/95).	applicable only to the optional remote activation device, not to the EPIRB itself.	
A.1/5.7	L-band EPIRB (Inmarsat)	Deliberately left blank			
A.1/5.8	2 182 kHz watch receiver	Deliberately left blank			
A.1/5.9	Two-tone alarm generator	Deliberately left blank			
A.1/5.10	MF radio capable of transmitting and receiving DSC and radiotelephony *Note:* 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	— 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/9, — Reg. IV/10, — Reg. X/3, — IMO Res. A.694(17), — IMO Res. A.804(19), — IMO Res. MSC.36(63)-(1994 HSC Code) 14, — IMO Res. MSC.97(73)-(2000 HSC Code) 14, — IMO Comsar Circ.32, — ITU-R M.493-13 (10/09),	— IMO MSC/Circ.862, — EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — EN 61162 series, — ETSI EN 300 338-1 V1.3.1 (2010-02), — ETSI EN 300 338-2 V1.3.1 (2010-02), — ETSI ETS 300 373-1 V1.2.1 (2002-10),	B + D B + E B + F

				—	ITU-R M.541-9 (05/04).	—	ETSI EN 301 843-5 V1.1.1 (2004-06).
						or	
						—	IMO MSC/Circ.862,
						—	IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008),
						—	IEC 61097-3 (1994),
						—	IEC 61097-9 (1997),
						—	IEC 61162 series.
A.1/5.11	MF DSC watchkeeping receiver	—	Reg. IV/14,	—	Reg. IV/9,	—	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series, ETSI EN 300 338-1 V1.3.1 (2010-02), ETSI EN 300 338-2 V1.3.1 (2010-02),
		—	Reg. X/3,	—	Reg. IV/10,		
		—	IMO Res. MSC.~~36~~(63)-(1994 HSC Code) 14,	—	Reg. X/3, IMO Res. A.694(17),		
		—	IMO Res. MSC.97(73)-(2000 HSC Code) 14.	—	IMO Res. A.804(19),		
				—	IMO Res. MSC.36(63)-(1994 HSC Code) 14,	—	B + D B + E B + F
				—	IMO Res. MSC.97(73)-(2000 HSC		

				Code)14, — IMO Comsar Circ.32, — ITU-R M.493-13 (10/09), — ITU-R M.541-9 (05/04), — ITU-R M.1173 (10/95).	— — — —	ETSI EN 301 033 V1.2.1 (2005-12), ETSI EN 301 843-5 V1.1.1 (2004-06). IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61097-3 (1994), IEC 61097-8 (1998), IEC 61162 series.
A.1/5.12	Inmarsat-B SES	— — — —	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/10, Reg. X/3, IMO Res. A.570(14), IMO Res. A.694(17), IMO Res. A.808(19), IMO Res. MSC.36(63)-(1994 HSC Code)14,	— — — or —	IMO MSC/Circ 862, EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008). IMO MSC/Circ 862, IEC 60945 (2002)	B + D B + E B + F

				— IMO Res. MSC.97(73)-(2000 HSC Code) 14, — IMO MSC/Circ.862, — IMO Comsar Circ.32.		including IEC 60945 Corrigendum 1 (2008).
A.1/5.13	Inmarsat-C SES	—	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/10, — Reg. X/3, — IMO Res. A.570(14), — IMO Res. A.664 (16), (applicable only if the Inmarsat C SES comprises EGC functions), — IMO Res. A.694(17), — IMO Res. A.807(19), — IMO Res. MSC.36(63)-(1994 HSC Code) 14, — IMO Res. MSC.97(73)-(2000 HSC	IMO MSC/Circ.862, B + D B + E B + F EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series, ETSI ETS 300 460 Ed.1 (1996-05), ETSI ETS 300 460/A1 (1997-11), ETSI EN 300 829 V1.1.1 (1998-03), ETSI EN 301 843-1 V1.2.1 (2004-06).

					Code) 14, — IMO MSC/ Circ.862, — IMO Comsar Circ.32.	or — — —	IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61097-4 (2007), IEC 61162 series.
A.1/5.14	MF/HF radio capable of transmitting and receiving DSC, NBDP and radiotelephony *Note:* 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.	— — — —	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/10, Reg. X/3, IMO Res. A.694(17), IMO Res. A.806(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.476-5 (10/95), ITU-R	— — — — — — — —	IMO MSC/ Circ.862, B + D B + E B + F EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series, ETSI ETS 300 067 Ed.1 (1990-11), ETSI ETS 300 067/ A1 Ed.1 (1993-10), ETSI EN 300 338-1 V1.3.1 (2010-02), ETSI EN

					M.491-1 (07/86), — ITU-R M.492~~-6~~ (10/95), — ITU-R M.493-13 (10/09), — ITU-R M.541-9 (05/04), — ITU-R M.625~~or3~~ (10/95~~),~~ — ITU-R M.1173~~-~~ (10/95).	300 338-2 V1.3.1 (2010-02), ETSI ETS 300 373-1 V1.3.1 (2011-01), ETSI EN 301 843-5 V1.1.1 (2004-06). IMO MSC/ Circ.862, IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — IEC 61097-3 (1994), — IEC 61097-9 (1997), — IEC 61162 series.
A.1/5.15	MF/HF DSC scanning watchkeeping receiver	— Reg. IV/14, — Reg. X/3, — IMO Res. MSC.36(63)-(1994 HSC Code) 14, — IMO Res. MSC.97(73)-		— Reg. IV/10, — Reg. X/3, — IMO Res. A.694(17), — IMO Res. A.806~~(19~~), — IMO Res. MSC.~~36~~(63)-(1994		EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series, ETSI EN	B + D B + E B + F

			(2000 HSC Code) 14.	—	HSC Code) 14, — IMO Res. MSC.97(73)-(2000 HSC Code) 14, — IMO Comsar Circ.32, — ITU-R M.493-13 (10/09), — ITU-R M.541-9 (05/04).	or —	300 338-1 V1.3.1 (2010-02), ETSI EN 300 338-2 V1.3.1 (2010-02), ETSI EN 301 033 V1.3.1 (2010-09), ETSI EN 301 843-5 V1.1.1 (2004-06). IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — IEC 61097-3 (1994), — IEC 61097-8 (1998), — IEC 61162 series.			
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	— — —	Reg. IV/14, Reg. X/3, IMO Res.	— —	Reg. III/6, IMO Res. A.694(17),	—	EN 60945 (2002) including IEC 60945	B + D B + E B + F			

			MSC.~~36~~(63)-(1994 HSC Code)—14, — IMO Res. MSC.97(73)-(2000 HSC Code) 14.	IMO Res. A.809(19), IMO Res. MSC.36(63)-(1994 HSC Code) 8, 14, IMO Res. MSC.97(73)-(2000 HSC Code)— 8, 14, IMO Res. MSC.149(77), ITU-R M.489-2 (10/95)~~.~~		Corrigendum 1 (2008), ETSI EN 300 225 V1.4.1 (2004-12), ETSI EN 301 843-2 V1.2.1 (2004-06). IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61097-12 (1996).
A.1/5.18	Fixed survival craft two-way VHF radiotelephone 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. III/6, IMO Res. A.694(17), IMO Res. A.809(19), IMO Res. MSC.36(63)-(1994 HSC Code) 8, 14, or IMO Res. MSC.97(73)-(2000 HSC Code) 8, 14,	— — — — —	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), ETSI EN 301 466 V1.1.1 (2000-10). IEC 60945 (2002) including IEC 60945 Corrigendum	B + D B + E B + F

				—	ITU-R M.489~~-2~~ (10/95).		1 (2008), IEC 61097-12 (1996).		
A1/5.19	Inmarsat-F77	— — —	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/10, IMO Res. A.570 (14), IMO Res. A.808 (19), IMO Res. A.694 (17), 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.	— — — — or — — —	IMO MSC/Circ.862, IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61097-13 (2003). IMO MSC/Circ.862, IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61097-13 (2003).	B + D B + E ~~B +~~ F

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	Testing standards	Modules for conformity assessment

			IMO, as applicable		
1	**2**	**3**	**4**	**5**	**6**
A.1/6.1	Navigation lights	— Colreg Annex I/14.	— Colreg Annex I/14, — IMO Res. A.694(17), — IMO Res. MSC.253(83).	— EN 14744 (2005) including AC (2006), EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008). or — EN 14744 (2005) including AC (2006), — IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008).	B + D B + E B + F G

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, as amended, where 'type approval' is required**	**Regulations of SOLAS 74, as amended, and the relevant resolutions and circulars of the**	**Testing standards**	**Modules for conformity assessment**

			IMO, as applicable		
1	**2**	**3**	**4**	**5**	**6**
A.1/8.1 Refer to note (b) of this Annex A.1	Water level detectors	— Reg. II-1/22-1, — Reg. II-1/25, — Reg. XII/12.	— Reg. II-1/25, Reg. XII/12, IMO Res.A.1021(26), — IMO Res. MSC.188(79).	— IEC 60092-504 (2001) including IEC 60092-504 Corrigendum 1 (2011), — IEC 60529 (2001) including: Corrigendum 1 (2003), Corrigendum 2 (2007), Corrigendum 3 (2009), — IMO Res. MSC.188(79), — IMO MSC.1/ Circ.1291.	B + D B + E B + F

ANNEX A.2

EQUIPMENT FOR WHICH NO DETAILED TESTING STANDARDS EXIST IN INTERNATIONAL INSTRUMENTS

1. Life-saving appliances

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

No	Item designation	Regulation SOLAS 74, as amended, where 'type approval' is required	Regulations of SOLAS 74, as amended, 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. A.1021(26), — 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.	— ISO 27991 (2008)	

2. **Marine pollution prevention**

No	Item designation	Regulation Marpol 73/78, as amended, where 'type approval' is required	Regulations of Marpol 73/78, as amended, 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_x monitoring and recording devices	Moved to A.1/2.8			
A.2/2.2	On board exhaust gas cleaning systems	Moved to A.1/2.10			
A.2/2.3	Equipment using other equivalent methods to reduce on board NO_x emissions	— Annex VI, Reg. 4.	— Annex VI, Reg. 4.		
A.2/2.4	Equipment using other technological methods to limit SO_x emissions	— IMO Res. MEPC.176(58) (Revised Marpol Annex VI, Reg. 4), — IMO Res. MEPC.184(59).	— IMO Res. MEPC.176(58) (Revised Marpol Annex VI, Reg. 4).	—	
A.2/2.5 (new item)	On board NO_x analysers using a measurement method other than the direct measurement and monitoring method of the NO_x Technical Code 2008	— IMO Res. MEPC.176(58) (Revised Marpol Annex VI, Reg. 4)	— IMO Res. MEPC.176(58) (Revised Marpol Annex VI, Reg. 4)	—	

3. **Fire protection equipment**

No	Item designation	Regulation SOLAS 74, as	Regulations of SOLAS 74, as	Testing standards	Modules for

		amended, where 'type approval' is required	**amended, and the relevant resolutions and circulars of the IMO, as applicable**		**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	Moved to A.1/3.51			

	machinery spaces										
A.2/3.6	Smoke detectors	Moved to A.1/3.51									
A.2/3.7	Heat detectors	Moved to A.1/3.51									
A.2/3.8	Electric safety lamp	—	Reg. II-2/10,	—	Reg. II-2/10,	—	IEC 60079 series.				
		—	Reg. X/3,	—	IMO Res. MSC.36(63)-(1994 HSC Code) 7,						
		—	IMO Res. MSC.98(73)-(FSS Code) 3.	—	IMO Res. MSC.97(73)-(2000 HSC Code) 7,						
				—	IMO Res. MSC.98(73)-(FSS Code), 3.						
A.2/3.9	Protective clothing resistant to chemical attack	—	Reg. II-2/19.	—	Reg. II-2/19,	—	EN 943-1 (2002) including AC (2005),				
				—	IMO Res. MSC.36(63)-(1994 HSC Code) 7,	—	EN 943-2 (2002),				
				—	IMO Res. MSC.97(73)-(2000 HSC Code) 7.	—	EN ISO 6529 (2001),				
						—	EN ISO 6530 (2005),				
							EN 14605 (2005) including A1(2009),				

				—	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	Moved to A.1/3.63			
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			
A.2/3.19	Fixed water-based local application fire-fighting systems	Moved to A.1/3.48			

	components for use in category 'A' machinery spaces										
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 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.	—	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, — IMO MSC.1/ Circ.1313.				
A.2/3.25	‘C’ class divisions	Moved to A.1/3.64							
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.					
A.2/3.27	Fixed gas fire extinguishing systems (CO_2) components	— Reg. II-2/10, — 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) 5, — IMO MSC.1/ Circ.1313, — IMO MSC.1/ Circ.1318.	Electrical automatic control and delay devices: — EN 12094-1 (2003). Non-electrical automatic control and delay devices: — EN 12094-2 (2003). Manual triggering and stop devices: — EN 12094-3 (2003). Container valve assemblies and their actuators: — EN 12094-4 (2004).			

				High and low pressure selector valves and their actuators: — EN 12094-5 (2006). Non-electrical disable devices: — EN 12094-6 (2006). Nozzles for CO_2 systems: — EN 12094-7 (2000) including A1 (2005). Connectors: — EN 12094-8 (2006). Pressure gauges and pressure switches: — EN 12094-10 (2003). Mechanical weighing devices: — EN 12094-11 (2003). Check valves and non-return valves:

					—	EN 12094-13 (2001) including AC (2002). Odorising devices for CO_2 low pressure systems: — EN 12094-16 (2003).
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	— Reg. II-2/10.	— Reg. II-2/10.			
A.2/3.32	Dry chemical powder	Moved to A.1/3.62				

	extinguishing systems	

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.

Column 5:

IEC 61162 series refer to the following reference standards for Maritime navigation and radiocommunication equipment and systems — Digital interfaces:

(a) IEC 61162-1 ed4.0 (2010-11) — Part 1: Single talker and multiple listeners

(b) IEC 61162-2 ed1.0 (1998-09) — Part 2: Single talker and multiple listeners, high-speed transmission

(c) IEC 61162-3 ed1.1 Consol. with am1 (2010-11) — Part 3: Serial data instrument network
- — IEC 61162-3 ed1.0 (2008-05) — Part 3: Serial data instrument network
- — IEC 61162-3-am1 ed1.0 (2010-06) Amendment 1 — Part 3: Serial data instrument network

(d) IEC 61162-400 ed1.0 (2001-11) — Part 400: Multiple talkers and multiple listeners — Ship systems interconnection — Introduction and general principles
- — IEC 61162-401 ed1.0 (2001-11) — Part 401: Multiple talkers and multiple listeners — Ship systems interconnection — Application profile
- — IEC 61162-402 ed1.0 (2005-09) — Part 402: Multiple talkers and multiple listeners — Ship systems interconnection — Documentation and test requirements
- — IEC 61162-410 ed1.0 (2001-11) — Part 410: Multiple talkers and multiple listeners — Ship systems interconnection — Transport profile requirements and basic transport profile
- — IEC 61162-420 ed1.0 (2001-11) — Part 420: Multiple talkers and multiple listeners — Ship systems interconnection — Companion standard requirements and basic companion standards
- — IEC 61162-450 ed1.0 (2011-06) — Part 450: Multiple talkers and multiple listeners — Ethernet interconnection

EN 61162 series refer to the following reference standards for Maritime navigation and radiocommunication equipment and systems — Digital interfaces:

(a) EN 61162-1 (2011) — Part 1: Single talker and multiple listeners

(b) EN 61162-2 (1998) — Part 2: Single talker and multiple listeners, high-speed transmission

(c) EN 61162-3 (2008) — Part 3: Serial data instrument network
- — EN 61162-3-am1 (2010) Amendment 1 — Part 3: Serial data instrument network

(d) EN 61162-400 (2002) — Part 400: Multiple talkers and multiple listeners — Ship systems interconnection — Introduction and general principles

— EN 61162-401 (2002) — Part 401: Multiple talkers and multiple listeners — Ship systems interconnection — Application profile

— EN 61162-402 (2005) — Part 402: Multiple talkers and multiple listeners — Ship systems interconnection — Documentation and test requirements

— EN 61162-410 (2002) — Part 410: Multiple talkers and multiple listeners — Ship systems interconnection — Transport profile requirements and basic transport profile

— EN 61162-420 (2002) — Part 420: Multiple talkers and multiple listeners — Ship systems interconnection — Companion standard requirements and basic companion standards

— EN 61162-450 (2011) — Part 450: Multiple talkers and multiple listeners — Ethernet interconnection

No	**Item designation**	**Regulation SOLAS 74, as amended, where 'type approval' is required**	**Regulations of SOLAS 74, as amended, 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	— 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.115(73), — IMO Res. MSC.191(79).
		— EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — EN 61108-1 (2003), — EN 61108-2 (1998), — EN 61162 series, — EN 62288 (2008).

								—	IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — IEC 61108-1 (2003), — IEC 61108-2 (1998), — IEC 61162 series, — IEC 62288 Ed.1.0(2008).
A.2/4.12	DGPS, DGLONASS 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	—	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.86(70), IMO Res. MSC.97(73)-(2000 or HSC	—	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series, EN 61924 (2006), EN 62288 (2008).				

				Code) 13, — IMO Res. MSC.191(79).	— — — —	IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61162 series, IEC 61924 (2006), IEC 62288 Ed.1.0(2008).
A.2/4.16	Bridge equipment system	Deliberately left blank				
A.2/4.17	Radar target enhancer	Moved to A.1/4.53				
A.2/4.18	Sound reception system	— 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.86(70), IMO Res. or MSC.97(73)-(2000 HSC Code), IMO Res. MSC.191(79).	— — —	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series, EN 62288 (2008). IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61162 series,

						—	IEC 62288 Ed.1.0(2008).
A.2/4.19	Magnetic compass for high-speed craft	— — —	Reg. X/3, IMO Res. MSC.36(63)-(1994 HSC Code), IMO Res. MSC.97(73)-(2000 HSC Code).	— — — —	IMO Res. A.382(X), IMO Res. A.694(17), IMO Res. MSC.36(63)-(1994 HSC Code), IMO Res. MSC.97(73)-(2000 HSC Code).	— — — — —	ISO 1069 (1973), ISO 25862(2009), EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008). or ISO 1069 (1973), ISO 25862(2009), IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008).
A.2/4.20	Track control system for — high-speed craft	— — —	Reg. X/3, IMO Res. MSC.36(63)-(1994 HSC Code), IMO Res. MSC.97(73)-(2000 HSC Code).	— — —	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).	— — — — or —	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series, EN 62288 (2008). IEC 60945 (2002) including

					IEC 60945 Corrigendum 1 (2008), — 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), or — IMO Res. MSC.191(79).	— EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — EN 61162 series, — EN 62288 (2008). IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008),

								—			IEC 61162 series,
								—			IEC 62288 Ed.1.0(2008).
A.2/4.25	Lateral thrust, pitch and mode indicators	—	Reg. V/18,	—	Reg. V/19,	—					EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008),
		—	Reg. X/3,	—	IMO Res. A.694(17),						
		—	IMO Res. MSC.36(63)-(1994 HSC Code),	—	IMO Res. MSC.36(63)-(1994 HSC Code),	—					EN 61162 series,
		—	IMO Res. MSC.97(73)-(2000 HSC Code).	—	IMO Res. MSC.97(73)-(2000 HSC Code),	—					EN 62288 (2008).
				—	IMO Res. MSC.191(79).	or					
						—					IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008),
						—					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									
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	Bridge equipment system	—	Reg. V/18,	—	Reg. V/19,	—					EN 60945 (2002) including
		—	Reg. X/3,	—	IMO Res.						

		—	IMO Res. MSC.~~36~~(63)-(1994 HSC Code) 13, — IMO Res. MSC.~~97~~(73)-(2000 HSC Code) 13.		A.694 (17), IMO Res. MSC.36(63)-(1994 HSC Code) 15, — IMO Res. MSC.~~97~~(73)-(2000 HSC Code) or 15, — IMO Res. MSC.191(79), — IMO SN.1/Circ.288.		—	IEC 60945 Corrigendum 1 (2008), — EN 61162 series, — EN 61209 (1999), — EN 62288 (2008). IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — IEC 61162 series, — IEC 61209 (1999), — IEC 62288 Ed.1.0(2008).
A.2/4.31	Bearing device	Moved to A.1/4.54									
A.2/4.32	Bridge navigational watch alarm system (BNWAS)	Moved to A.1/4.57									
A.2/4.33	Track control system (working at ship's speed from 30 knots and above)	— Reg. V/18, — Reg. X/3.		— Reg. V/19, — IMO Res. A.694 (17), — IMO Res. MSC.36(63)-(1994		—	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008),				

			— HSC Code), — IMO Res. MSC.97(73)-(2000 HSC Code), — IMO Res. MSC.191(79).	— or — — —	EN 61162 series, EN 62288 (2008). IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61162 series, IEC 62288 Ed.1.0(2008).
A.2/4.34	Equipment with long range identification and tracking (LRIT) capability	— Reg. V/19	— Reg. V/19, — IMO Res. A.694(17), — IMO Res. A.813(19), — IMO Res. MSC.202(81), — IMO Res. MSC.211(81), — IMO Res. MSC.263(84), — IMO MSC.1/ Circ 1307.	— or — — —	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series. IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61162 series.
A.2/4.35	Galileo receiver	Moved to A.1/4.56			
A.2/4.36	AIS SART equipment	Moved to A.1/4.55			

5. Radiocommunication equipment

Notes applicable to Section 5: Radiocommunication equipment.

Column 5:

IEC 61162 series refer to the following reference standards for Maritime navigation and radiocommunication equipment and systems — Digital interfaces:

(a) IEC 61162-1 ed4.0 (2010-11) — Part 1: Single talker and multiple listeners

(b) IEC 61162-2 ed1.0 (1998-09) — Part 2: Single talker and multiple listeners, high-speed transmission

(c) IEC 61162-3 ed1.1 Consol. with am1 (2010-11) — Part 3: Serial data instrument network
- — IEC 61162-3 ed1.0 (2008-05) — Part 3: Serial data instrument network
- — IEC 61162-3-am1 ed1.0 (2010-06) Amendment 1 — Part 3: Serial data instrument network

(d) IEC 61162-400 ed1.0 (2001-11) — Part 400: Multiple talkers and multiple listeners — Ship systems interconnection — Introduction and general principles
- — IEC 61162-401 ed1.0 (2001-11) — Part 401: Multiple talkers and multiple listeners — Ship systems interconnection — Application profile
- — IEC 61162-402 ed1.0 (2005-09) — Part 402: Multiple talkers and multiple listeners — Ship systems interconnection — Documentation and test requirements
- — IEC 61162-410 ed1.0 (2001-11) — Part 410: Multiple talkers and multiple listeners — Ship systems interconnection — Transport profile requirements and basic transport profile
- — IEC 61162-420 ed1.0 (2001-11) — Part 420: Multiple talkers and multiple listeners — Ship systems interconnection — Companion standard requirements and basic companion standards
- — IEC 61162-450 ed1.0 (2011-06) — Part 450: Multiple talkers and multiple listeners — Ethernet interconnection

EN 61162 series refer to the following reference standards for Maritime navigation and radiocommunication equipment and systems — Digital interfaces:

(a) EN 61162-1 (2011) — Part 1: Single talker and multiple listeners

(b) EN 61162-2 (1998) — Part 2: Single talker and multiple listeners, high-speed transmission

(c) EN 61162-3 (2008) — Part 3: Serial data instrument network
- — EN 61162-3-am1 (2010) Amendment 1 — Part 3: Serial data instrument network

(d) EN 61162-400 (2002) — Part 400: Multiple talkers and multiple listeners — Ship systems interconnection — Introduction and general principles
- — EN 61162-401 (2002) — Part 401: Multiple talkers and multiple listeners — Ship systems interconnection — Application profile

- EN 61162-402 (2005) — Part 402: Multiple talkers and multiple listeners — Ship systems interconnection — Documentation and test requirements
- EN 61162-410 (2002) — Part 410: Multiple talkers and multiple listeners — Ship systems interconnection — Transport profile requirements and basic transport profile
- EN 61162-420 (2002) — Part 420: Multiple talkers and multiple listeners — Ship systems interconnection — Companion standard requirements and basic companion standards
- EN 61162-450 (2011) — Part 450: Multiple talkers and multiple listeners — Ethernet interconnection

No	**Item designation**	**Regulation SOLAS 74, as amended, where 'type approval' is required**	**Regulations of SOLAS 74, as amended, 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	— Reg. IV/14, — Reg. X/3, — IMO Res. MSC.36(63)-(1994 HSC Code), — IMO Res. MSC.97(73)-(2000 HSC Code).	— Reg.IV/8, — IMO Res. A.662(16), — IMO Res. A.694(17), — IMO Res. A.805(19), — IMO Res. MSC.36(63)-(1994 HSC Code), — IMO Res. MSC.97(73)-(2000 HSC Code), — ITU-R M.489-2 (10/95),	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008). IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008).	

					—	ITU-R M.693 (06/90).					
A.2/5.2	Radio reserve source of energy	—	Reg. IV/14,	—	Reg. IV/13,	—	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008).				
		—	Reg. X/3,	—	IMO Res. A.694(17),						
		—	IMO Res. MSC.36(63)-(1994 HSC Code),	—	IMO Res. MSC.36(63)-(1994 HSC Code), or						
		—	IMO Res. MSC.97(73)-(2000 HSC Code).	—	IMO Res. MSC.97(73)-(2000 HSC Code),	—	IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008).				
				—	IMO Comsar Circ.16,						
				—	IMO Comsar Circ.32.						
A.2/5.3	Inmarsat-F SES	Moved to A.1/5.19.									
A.2/5.4	Distress panel	—	Reg. IV/14,	—	Reg. IV/6,	—	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008).				
		—	Reg. X/3,	—	IMO Res. A.694(17),						
		—	IMO Res. MSC.36(63)-(1994 HSC Code),	—	IMO Res. MSC.36(63)-(1994 HSC Code), or						
		—	IMO Res. MSC.97(73)-(2000 HSC Code).	—	IMO Res. MSC.97(73)-(2000 HSC Code),	—	IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008).				
				—	IMO MSC/Circ. 862,						

				—	IMO Comsar Circ.32.						
A.2/5.5	Distress alarm or alert panel	—	Reg. IV/14,	—	Reg. IV/6,	—	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008).				
		—	Reg. X/3,	—	IMO Res.A.694(17),						
		—	IMO Res. MSC.36(63)-(1994 HSC Code),	—	IMO Res. MSC.36(63)-(1994 HSC Code),	or					
		—	IMO Res. MSC.97(73)-(2000 HSC Code).	—	IMO Res. MSC.97(73)-(2000 HSC Code),	—	IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008).				
				—	IMO MSC/ Circ.862,						
				—	IMO Comsar Circ.32.						
A.2/5.6	L-band EPIRB (Inmarsat)	Deliberately left blank									
A.2/5.7	Ship security alert system			—	Reg. XI-2/6,	—	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series.				
				—	IMO Res. A.694(17),						
				—	IMO Res. MSC.147(77),						
				—	IMO MSC/ Circ.1072.	—					
						or					
						—	IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008),				

						—	IEC 61162 series.
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.	— — — —	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), ETSI EN 301 688 V1.1.1 (2000-07). or IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), ETSI EN 301 688 V1.1.1 (2000-07).

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).	— Colreg 72 Annex III/3, — IMO Res. A.694(17).	— EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — Whistles — Colreg 72 Annex III/1 (performance), — Bells or gongs — Colreg 72 Annex III/2 (performance). or — IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), — 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	Regulations of SOLAS	Testing standards	Modules for

		74, as amended, where 'type approval' is required	**74, as amended, and the relevant resolutions and circulars of the IMO, as applicable**		**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, as amended, where 'type approval' is required**	**Regulations of SOLAS 74, as amended, 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	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) 12, — IMO Res. MSC.97(73)-(2000		]

			HSC Code) 12.		

(1) **[**[F1]OJ L 305, 20.11.2010, p. 1.

(2) OJ L 239, 15.9.2011, p. 1.**]**

Textual Amendments

F1 Substituted by Commission Directive 2012/32/EU of 25 October 2012 amending Council Directive 96/98/EC on marine equipment (Text with EEA relevance).