# Commission Directive (EU) 2015/559 of 9 April 2015 amending Council Directive 96/98/EC on marine equipment (Text with EEA relevance)

# COMMISSION DIRECTIVE (EU) 2015/559

of 9 April 2015

amending Council Directive 96/98/EC on marine equipment

(Text with EEA relevance)

## THE EUROPEAN COMMISSION,

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

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

#### Whereas:

- (1) For the purposes of Directive 96/98/EC, the international conventions and testing standards should apply in their up-to-date versions.
- (2) A number of amendments to the international conventions and applicable testing standards have entered into force since the adoption of the last amending act to Directive 96/98/EC. Those amendments should be incorporated into Directive 96/98/EC.
- Ouring the same period, the International Maritime Organisation and the European standardisation organisations have also adopted standards, including detailed testing standards, for a number of items of equipment which are listed in Annex A.2 to Directive 96/98/EC or which, albeit not listed, are considered relevant for the purpose of that Directive. Therefore such items of equipment should be included in Annex A.1 or transferred from Annex A.2 to Annex A.1, as appropriate.
- (4) Directive 96/98/EC should therefore be amended accordingly.
- (5) It is reasonable to allow equipment newly subject to harmonised requirements under this Directive and manufactured before the expiry of the time limit for the implementation of this Directive to be placed on the market and on board a Community ship during a transitional period.
- (6) The measures provided for in this Directive are in accordance with the opinion of the Committee on Safe Seas and the Prevention of Pollution from Ships (COSS),

## HAS ADOPTED THIS DIRECTIVE:

### Article 1

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

Status: EU Directives are being published on this site to aid cross referencing from UK legislation. After

IP completion day (31 December 2020 11pm) no further amendments will be applied to this version.

#### Article 2

Equipment listed in column 1 of Annex A.1 as having been transferred from Annex A.2 which was manufactured before 30 April 2016 in conformity with procedures for type-approval already in force before that date within the territory of a Member State, may continue to be placed on the market and on board a Community ship until 30 April 2018.

## Article 3

1 Member States shall adopt and publish, by 30 April 2016 at the latest, the laws, regulations and administrative provisions necessary to comply with this Directive. They shall forthwith communicate to the Commission the text of those provisions.

They shall apply those provisions from 30 April 2016.

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

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

#### Article 4

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

Article 5

This Directive is addressed to the Member States.

Done at Brussels, 9 April 2015.

For the Commission

The President

Jean-Claude JUNCKER

#### **ANNEX**

ANNEX General note for Annex A: SOLAS Regulations refer to SOLAS, as amended. A

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 others. 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 Organization.

IEC, International Electro-technical Commission.

IGC, International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk.

IMO, International Maritime Organization.

ISO, International Standardisation Organisation.

ITU, International Telecommunication Union.

LSA, Life saving appliance.

MARPOL, International Convention for the Prevention of Pollution from Ships.

MEPC, Marine Environment Protection Committee

MSC, Maritime Safety Committee.

NO<sub>x</sub>, Nitrogen Oxides.

O<sub>2</sub>/HC systems: Oxygen Hydro Carbon systems.

SOLAS, International Convention for the Safety of Life at Sea.

SO<sub>x</sub>, 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 2013/52/EU<sup>(2)</sup> may apply. (9th Amendment of MED Annex A).
- (c) Column 1: Article 2 of Commission Directive 2014/93/EU<sup>(3)</sup> may apply. (10th Amendment of MED Annex A).
- (d) 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.
- (e) 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.
- (f) 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.
- (g) 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 should 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.1/1.1	Lifebuoys	— Reg. III/4, — Reg. X/3.	— Reg. III/7, — Reg. III/34 — IMO Res.	Res. MSC	B + D B + E B + F .81(70).

				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.		
A.1/1.2	Position- indicating lights for life-saving appliances: (a) for surviv craft and rescue boats (b) for lifebu (c) for lifejac	e , loys,	4, g. —	Reg. III/7, Reg. III/22, Reg. III/26, Reg III/32, Reg. III/34, IMO Res. MSC.36(63)-(1994 HSC Code) 8, IMO Res. MSC.48(66)-(LSA Code) II, IV, IMO Res. MSC.97(73)-(2000 HSC Code) 8.	IMO Res. MSC	B + D B + E B + F 81(70).

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A.1/1.3	Lifebuoys self-	_	Reg. III/4,		Reg. III/7,		B + D B + E
	activating					_	$\mathbf{D} + \mathbf{E}$
	smoke signals		Reg. X/3.	_	Reg. III/34,	MSC.	B+F 81(70).
	silloke signals		$\Lambda/3$ .		IMO		<b>\</b>
				_			
					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.		
A.1/1.4	Lifejackets		Reg.		Reg.		B + D
71.1/1.4	Lifejackets		III/4,		III/7, —		B + E
			Reg.		Reg.	_	B + F
			X/3.		III/22,	MSC.	B+F 81(70).
			$\Lambda/J$ .		Reg.		,
					III/34,		
					IMO		
				_	Res.		
					MSC 36(63)-		
					(1994		
					HSC		
					Code)		
					8, IMO		
				_			
					Res. MSC.48(66)-		
					(LSA Code)		
					I, II,		
				_	IMO		
					Res.		
					MSC 97(73)-		
					(2000		
					HSC		
					Code)		
					8,		

			_ _ _	IMO   MSC/ Circ.922, IMO   MSC.1/ Circ.1304, IMO   MSC.1/ Circ.1470.		
A.1/1.5	Immersion suits and anti- exposure suits designed to be worn in conjuction WITH a lifejacket a) immersion suit without inherent insulation b) immersion suit with inherent insulation c) anti exposure suits	on on		Reg. III/7, 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	B + D B + E B + F 81(70).
A.1/1.6	Immersion suits and anti- exposure suits designed to be worn WITHOUT a lifejacket a) immersion suit without inherent insulation			Reg	IMO Res. MSC	B + D B + E B + F 81(70).

	b) immersuit with inherinsula c) antiexpossuits	ent ation		_	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,	IMO Res. MSC	B + D B + E B + F 81(70).
A.1/1.8	Rocket parachute flares (pyrotechnics)	_	Reg. III/4, Reg. X/3.	_	Reg	IMO Res. MSC	B + D B + E B + F 81(70).

				_	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.		
A.1/1.9	Hand flares (pyrotechnics)		Reg. III/4, Reg. X/3.		Reg. III/34,—IMO Res. MSC.36(63)-(1994 HSC Code) 8, IMO Res. MSC.48(66)-(LSA Code) I, III, IMO Res. MSC.97(73)-(2000 HSC Code) 8.	IMO Res. MSC	B + D B + E B + F .81(70).
A.1/1.10	Buoyant smoke signals (pyrotechnics)	_	Reg. III/4, Reg. X/3.	_	Reg. III/34,— IMO Res. MSC,48(66)- (LSA Code)	IMO Res. MSC	B + D B + E B + F 81(70).

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				I, III.		
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	B + D B + E B + F 81(70).
A.1/1.12	Inflatable liferafts	Reg. III/4, Reg. X/3.		Reg. III/13, Reg. III/21, And for Reg. extended III/26, service Reg. intervals: III/31, — Reg. III/34, IMO Res. MSC.36(63)-(1994 HSC Code) 8, IMO Res. MSC.48(66)-(LSA Code) I, IV,	Res. MSC	B + D B + E 83 (76).

				_	IMO Res. MSC.97(73)- (2000 HSC Code) 8, IMO MSC/ Circ.811, IMO MSC.1/ Circ.1328.		
A.1/1.13	Rigid liferafts		Reg. III/4, Reg. X/3.		Reg. — III/21, Reg. III/26,— Reg. III/26,— Reg. III/31, Reg. III/34, IMO Res. MSC.36(63)-(1994 HSC Code) 8, IMO Res. MSC.48(66)-(LSA Code) I, IV, IMO Res. MSC.97(73)-(2000 HSC Code) 8, IMO MSC/Circ.\$11.	Res.	
A.1/1.14	Automatically self-righting liferafts	_	Reg. III/4, Reg. X/3.		Reg. — III/26, Reg. III/34, And for IMO extended Res. service MSC 366(673) als	Res. MSC	B + D B + E 83 (70).

			_	(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 MSC/ Circ.811, IMO MSC.1/ Circ.1328.	IMO MSC Circ.	
A.1/1.15	Canopied reversible liferafts	Reg. III/4, Reg. X/3.	_	Reg. — III/26, Reg. III/34, And for IMO extended service MSC 36(673) als: (1994 — HSC Code) 8, IMO Res. MSC 48(66)-(LSA Code) I, IV, IMO Res. MSC 97(73)-(2000 HSC IIII/26, IV)	Res. MSC	B + D B + E SSI (776).

			_ 	Code) 8, IMO MSC/ Circ.809, IMO MSC/ Circ.811, IMO MSC.1/ Circ.1328.	
A.1/1.16	Float-free arrangements for liferafts (hydrostatic release units)	— Reg. III/4, — Reg. X/3.		Reg.   III/13,	IMO Res. B + E B + F 81(70).
A.1/1.17	Lifeboats: (a) David launce lifeboars  (b) Free-fall lifeboars	hed Reg. ats: X/3. partially enclosed, totally enclosed.	_ _ _	Reg. — III/21, Reg. III/31,— Reg. III/34, IMO Res. MSC.36(63)- (1994 HSC	IMO B + D Res. B + F MSC &1 (70), IMO MSC/ Circ. 1006.

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A.1/1.18	Rigid rescue		Reg.	_	Code) 8, IMO Res. MSC 48(66)-(LSA Code) I, IV, IMO Res. MSC 97(73)-(2000 HSC Code) 8, IMO MSC 1/ Circ. 1423. Reg. —	IMO B + D
A.1/1.10	boats		Reg. III/4, Reg. X/3.	_	Reg.   —	Res. B + F MSC (70), IMO MSC/ Circ.1006.
A.1/1.19	Inflated rescue boats	_	Reg. III/4, Reg. X/3.	_ _ _	Reg. — III/21, Reg. III/31,— Reg. III/34,	IMO B + D Res. B + F MSC \$1(70), ISO 15372 (2000).

			_	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.	
A.1/1.20	Fast rescue boats: (a) inflat (b) rigid (c) rigid-inflat			Reg. — III/26, Reg. III/34, — IMO Res. MSC 48(66)-(LSA Code) I,V, IMO MSC/Circ.1016, IMO MSC/Circ.1016, IMO MSC/Circ.1094.	IMO B + D Res. B + F MSC. \$\mathbb{G}\$ (70), IMO MSC/ Circ. 1006, ISO 15372 (2000).
A.1/1.21	Launching appliances using falls (davits)	— Re III — Re X/	eg. —	Reg. III/23,— Reg. III/33, Reg. III/34, IMO Res. MSC.36(63)-(1994 HSC Code) 8, IMO Res. MSC.48(66)-	IMO B + D B + E B + F MSC.

				_	(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/23, Reg. III/33, Reg. III/34, IMO Res. MSC.36(63)-(1994 HSC Code) 8, IMO Res. MSC.48(66)-(LSA Code) I, VI, IMO Res. MSC.97(73)-(2000 HSC Code) 8.	IMO Res. MSC	B + D B + E B + F & (70).
A.1/1.24	Liferaft launching appliances (Davits)	_	Reg. III/4, Reg. X/3.	_ _ _	Reg. III/12,— Reg. III/16, Reg. III/34,	IMO Res. MSC	B + D B + E B + F & (70).

			_	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)		
A.1/1.25	Fast rescue boat launching appliances (Davits)	Reg. III/4.		8.  Reg. III/26,— Reg. III/34, IMO Res. MSC.48(66)- (LSA Code) I, VI.	IMO Res. MSC	B+D B+E B+F & (70).
A.1/1.26	Release mechanism for — (a) Lifeboats and rescue boats (launched by a fall or falls) (b) Liferafts (launched by a fall or falls)	d	_	Reg. III/16,— Reg. III/34, IMO Res. MSC 36(63)-(1994 HSC Code) 8, IMO Res. MSC 48(66)-(LSA Code) I, IV, VI,	IMO Res. MSC	B+D B+E B+F 81(70).

	(c) Free fall lifebo	oats		_	IMO Res. MSC 97(73)- (2000 HSC Code) 8, IMO MSC 1/ Circ. 1419.		
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	B + D B + F G 81(70).
A.1/1.28	Means of rescue	_	Reg. III/4.	_	Reg. — III/26, Reg. III/34,— IMO Res. MSC.48(66)- (LSA Code) I, VI.	Res. MSC IMO MSC Circ.	.81(70), / 810.
A.1/1.29	Embarkation ladders		Reg. III/4,	_	Reg. — III/11,	Res.	B + D B + F 81(70),

A.1/1.30	Retro-reflective		Reg. III/11 Reg. X/3.		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.	ISO 5489 (2008	B + D B + E
	materials		Reg. X/3.	_	IMO Res. MSC,36(63)- (1994 HSC Code) 8, IMO Res. MSC,48(66)- (LSA Code) I, IMO Res. MSC,97(73)- (2000 HSC Code) 8.		B + E B + F 8(16).
A.1/1.31	Survival craft two-way VHF radio telephone apparatus	Moved to	o A.1/3	5.17 and <i>a</i>	A.1/5.18		

A.1/1.32	9 GHz SAR transponder (SART)	Moved to A.1/4	1.18		
A.1/1.33	Radar reflector for lifeboats and rescue boats (passive)	— Reg. III/4, — Reg. X/3.		Reg. — III/34, IMO Res A.384(X), IMO Res. MSC.36(63)-(1994 HSC Code) 8, IMO Res. MSC.48(66)-(LSA Code) I, IV, — V, IMO Res. MSC.97(73)-(2000 HSC Code) 8, IMO Res. — MSC.164(78). —	EN   B + D   ISO   B + E   8729   B + F   (1998), EN   60945   (2002)   including   IEC   60945   (2008). Or, EN   ISO   8729   (1998), IEC   60945   (2002)   including   IEC   60945   (2002)   including   IEC   60945   (2010), EN   60945   (2010), EN   60945   (2002)   including   IEC   60945   (2002)   IEC   60945

					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. X/3.	,	Reg. III/34, IMO Res. MSC.48(66)- (LSA Code) IV, V.	IMO B + E Res. B + F MSC 81(70).
A.1/1.37	Rescue boat propulsion engine- outboard motor	— Reg. III/4 — Reg. X/3.		Reg. III/34,— IMO Res. MSC.48(66)- (LSA Code) V.	IMO B + D B + E Res. B + F MSC 81(70).
A.1/1.38	Searchlights for use in lifeboats and rescue boats	— Reg. III/4 — Reg. X/3.	,	Reg. III/34,— IMO Res. MSC 36(63)-(1994 HSC Code) 8, IMO Res. MSC 48(66)-(LSA Code) I, IV, V, IMO Res. MSC 97(73)-	IMO B + E B + F MSC 81(70).

					(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. And for MSC 2000 service intervals: Code)— 8, Annex 11, IMO MSC 1/ Circ. 1328.	Res. MSC (1994 HSC Code Anne 10, IMO Res. MSC (2000 HSC Code Anne 11.	97(73)- ) x
A.1/1.40	Mechanical pilot hoist	Moved to	o A.1/4	4.48			
A.1/1.41	Winches for survival craft and rescue boats  (a) davit launce lifebo (b) free-fall lifebo (c) lifera (d) rescue boats  (e) fast rescue boats	hed pats, pats, fts, e	Reg. III/4, Reg. X/3.		Reg.   III/16,	IMO Res. MSC	B + D B + E B + F (70).

				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	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.	Res. MSC IMO MSC	<b>&amp;1</b> (70), / 1006, 2

# 2. Marine pollution prevention

No.	Item designation	Regulation MARPOL 73	Regulations /7 <b>%</b> 5	Testing standards	Modules for
	J	as amended, where "type	MARPOL 73/78, as amended, and the relevant		conformity assessment

		approval" is required	resolutions and circulars of the IMO, as applicable		
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.)	— Anne I, Reg 14.	Annex I, Reg. X14, — IMO MEP Circ.	Res. MEP C <del>.1</del> / IMO	
A.1/2.2	Oil/water interface detectors	— Anne I, Reg.	I,	Res.	B + D B + E B + F C.5(XIII).
A.1/2.3	Oil-content meters	— Anne I, Reg.	_ IMO	Res. MEP C <del>.1</del> / IMO	
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 le	ft blank		
A.1/2.5	Oil discharge monitoring and control system for oil tankers	— Anne I, Reg. IMO MEP Circ.' Rev.1	— Anne 31, I, Reg. C.1/ 31.	-	B + D B + E B + F C.108(49).
A.1/2.6	Sewage systems	— Anne IV, Reg.	1V,	Until 31 December 2015: IMO Res. MEP	B + D B + E B + F C.159(55).

A.1/2.7	Shipboard incinerators	— Anne VI, Reg.				016: IMO Res. MEPO IMO Res.	C.227(64). $B + D$ $B + E$ $B + F$ $C_{G}$ 76(40).
		J		MEPC.1 Circ.793	1/		
A.1/2.8	NO <sub>x</sub> analyser for use on board as per NO <sub>x</sub> Technical Code 2008	MAR	POL x VI,	IMO Res. MEPC.1 (Revised MARPO Annex VI, Reg. 13); IMO Res. MEPC.1 (NO <sub>x</sub> Technica code 2008), IMO Res. MEPC.1 IMO MEPC.1 Circ.638	176(58) d DL ; 177(58) al	(NO <sub>x</sub> Techr Code 2008)	
A.1/2.9	Equipment using other technological methods to limit SO <sub>x</sub> emissions	Moved to A.2/	2.4	1			
A.1/2.10	On board exhaust gas cleaning systems	(Revi MAR Anne Reg. — IMO Res.	POL x VI,	(Revised MARPO Annex VI, Reg.	176(58)] d	IMO Res. <del>M</del> EP	B + D B + E B + F G184(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. J. II-2/6 — IMO Res. MSC (1994 HSC Code 7, IMO Res.	Res. MSC (2010 FTP 36(63)- Code	
A.1/3.2	Portable fire extinguishers	<ul> <li>Reg. II-2/1</li> <li>Reg. X/3,</li> <li>IMO Res. MSC (FSS Code 4.</li> </ul>	0, II-2/4 — Reg. II-2/1 — Reg. II-2/1 .98(73)- Reg. II-2/1 )— Reg. II-2/2 — IMO Res. A.95 — IMO Res.	(2004) 0, include A.1 8, (2007) — EN 9, 3-8 (2006) 20, include AC (2007) 1(23), EN 3-9 (2006) 36(63)- include	(i), ding (i), ding

			_	Code)—7, IMO Res. MSC 97(73)-(2000 HSC Code) 7, IMO Res. MSC 98(73)-(FSS Code) 4, IMO	EN 3-10 (2009	
			_	MSC/ Circ.1239, IMO MSC/ Circ.1275.		
A.1/3.3	Fire-fighter's outfit: protective clothing (close proximity clothing)	Reg. II-2/1 Reg. X/3, IMO Res. MSC (FSS Code 3.	.98(73)-	Reg. Protective III-2/1 @ Jothing IMO fire fight Res. — MSC 36(63)-(1994 HSC Code) 7, IMO Res. MSC 97(73)-(2000 Protective Clothing Reflective Code) For fire fighting Reflective Code Salar Protective Clothing for fire fighting Protective Clothing a reflect outer sur	for ting: EN 469 (2006) inclu A1 (2006) and AC (2006) we  we for sed ting: EN 1486 (2007) we  we with ive	ding 5)

					-	_	ISO 15538 (2001 Level	)
A.1/3.4	Fire-fighter's outfit: boots	_	Reg. II-2/1 Reg. X/3, IMO Res. MSC. (FSS Code) 3.	98(73)-	Reg. II-2/107 IMO Res. MSC.3 (1994 HSC Code) 7, IMO Res. MSC.9 (2000 HSC Code) 7, IMO Res. MSC.9 (FSS Code) 3.	6(63)- 7(73)-	EN 15090 (2012	B + D B + E B + F
A.1/3.5	Fire-fighter's outfit: gloves		Reg. II-2/1 Reg. X/3, IMO Res. MSC (FSS Code) 3.	.98(73)-	Reg. II-2/107 IMO Res. MSC.3 (1994 HSC Code) 7, IMO Res. MSC.9 (2000 HSC Code) 7, IMO Res. MSC.9 (FSS Code) 3.	6(63)- 7(73)-	EN 659 (2003 included A1 (2008 and AC (2009)	ding
A.1/3.6	Fire-fighter's outfit: helmet	_	Reg. II-2/1	0,	Reg. II-2/10,	,	EN 443 (2008	B + D B + E B + F

		Reg. X/3, IMO Res. MSC (FSS Code 3.	.98(73)-	(1994 HSC Code) 7, IMO Res. MSC.9 (2000 HSC Code) 7, IMO Res.	97(73)- 98(73)-		
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-2/11 Reg. X/3, IMO Res. MSC (FSS Code 3.	.98(73)-	(1994 HSC - Code) 7, IMO Res. MSC 9 (2000 a HSC V Code)- 7, IMO Res. MSC 9 (FSS Code) 3. ere ratus e in	And whe the appar of (78) use accidents with carg	includ AC (2003 EN 137 (2006) re ratus in so:	5),

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			_	Code) 14, IMO Res. MSC 5(48)- (IGC Code) 14.	
A.1/3.8	Compressed air line breathing apparatus	Reg. X/3.  X/3.  IMO Res. MSC (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 B + D 14593H + E (2005)B + F EN 14593-2 (2005) including AC (2005), EN 14594 (2005) including AC (2005).
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 and their performance). (Nozzles for fixed sprinkler systems, for high speed craft (HSC) are included under this item)	- X/3, IMO Res.	0, — — .98(73)-	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. MSC.97(73)-(2000 HSC Code) 7, IMO Res. MSC.97(73)-(2000 HSC Code) 7, IMO Res. MSC.98(73)-(FSS	IMO B + E Res. B + F A.800(19).

A.1/3.10	Nozzles for fixed pressure water spraying fire extinguishing systems for machinery spaces and cargo pumprooms	— Reg. II-2/ — Reg. X/3, — IMC Res. MSC (FSS Code 7.	2.98(73)-	Code) 8. IMO MSC/ Circ.912.  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,97(73)-(2000) HSC Code) 7, IMO Res. MSC,98(73)-(FSS Code) 7, IMO Res. MSC,1/ Circ.1313.	IMO B + E MSC/B + F Circ.1165, Appendix A.
A.1/3.11	"A" & "B" Class divisions fire integrity (a) "A" class divisi (b) "B" class divisi	"B" Class:  — Reg. II-2/ ons,	3.2A" Cla —	Reg. II-2/3.2. IMO MSC/— Circ.1120 IMO MSC.1/ Circ.1434	IMO B + D Res. B + E MSC 307(88)- (2010 FTP Code). IMO MSC 1/ Circ. 1435 (the latter is only for "A" Class divisions)
A.1/3.12	Devices to prevent the passage of flame into the	— Reg. II-2/ — Reg. II-2/	4,	Reg — II-2/4, Reg II-2/16	EN For ISO equipment 16852other than (2010) yalves:

	cargo tanks in tankers				ISO 1536 (2007 IMO MSC Circ.	7), B + E B +
A.1/3.13	Non-combustible materials	— Reg II-2 — Reg X/3	g. —	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 (2010 FTP Code	
A.1/3.14	Materials other than steel for pipes penetrating "A" or "B" Class division	Item included	d in A.1/3.2	26 and A.1/3.27		
A.1/3.15	and	gs, s, ble ablies ensators,	g. —	Reg. Pipes an II-2/4,fittings: IMO — Res. MSC 36(63)-(1994 — HSC Code) 7, 10, IMO Res. Valves: MSC 97(73)-(2000 HSC Code)	IMO Res. A.75 IMO Res.	). 7

	with resilie and	meric			7, 10. IMO MSC. Circ.		es:     EN     ISO     15540     (2001     EN     ISO     1554     (2001     pipe ents and	) 1 ). 1 (),
A.1/3.16	Fire Doors		Reg. II-2/9	<u> </u>	Reg. II-2/9	— —	Res.	). .1/
A.1/3.17	Fire door control systems components. <i>Note:</i> When the term "system components" is used in column 2 it may be that a single component, a group of components or a whole system needs to be tested to ensure that the international		Reg. II-2/9 Reg. X/3.		Reg. II-2/9 IMO Res. MSC (2000 HSC Code 7.	.97(73)-	IMO Res. MSC (2010 FTP Code	

	requirements are fulfilled.				
A.1/3.18	Surface materials and floor coverings with low flame-spread characteristics (a) decorative veneers (b) paint systems, (c) floor covering (d) pipe insulation covers, (e) adhesive used in the construct of "A", "B" & "C" class divisions (f) combust ducts membran	(b), (c) Reg. II-2/9 gs, for (e), on (f) Reg. es X/3.	Reg. II-2/5 Reg. II-2/6 Reg. II-2/6 Reg. II-2/9 IMO Res. MSC. (1994 HSC Code) 7, IMO Res.	Res. MSC (2010 FTP Code)	
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-2/9 IMO Res. MSC. (1994 HSC Code) 7, IMO Res.	MSC (2010) FTP Code (36(63)- IMO MSC Circ.)	), .1/

A.1/3.20	Upholstered furniture	_ _ _	Reg. II-2/3 Reg. II-2/5 Reg. II-2/9 Reg. I	, , ,	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.	
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 B + E Res. B + F MSC 307(88)- (2010 FTP Code).
A.1/3.22	Fire dampers	_	Reg. II-2/9		Reg. — II-2/9.	IMO B + D B + E B + F MSC 307(88)- (2010 FTP Code),
A.1/3.23	Non- combustible duct penetrations through	Moved t	to A.1/	3.26		

	"A" class divisions			
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 windows and side scuttles	— Reg. II-2/9	Reg. II-2/9,— IMO MSC/ Circ.1120.	IMO B + D B + E Res. B + F MSC 307(88)- (2010 FTP Code).
A.1/3.26	Penetrations through "A" class divisions (a) electr cable transi (b) pipe, duct, trunk etc penet	ts,	Reg. II-2/9,— IMO MSC 1/ Circ.1276. (only applicable to (b))	IMO B + D B + E B + F MSC 307(88)- (2010 FTP Code).
A.1/3.27	Penetrations through "B" class divisions (a) electr cable transi (b) pipe, duct, trunk etc penet	its,	Reg. — II-2/9.	IMO B + D B + E Res. B + F MSC.307(88)- (2010 FTP Code).
A.1/3.28	Sprinkler systems (limited to sprinkler heads). (Nozzles for fixed sprinkler systems, for high speed craft (HSC) are included	— 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,	ISO B + D 6182-B + E (2014B + F Or, EN 12259-1 (1999) including A1 (2001), A2 (2004)

	under this item)		_	IMO Res. MSC.44(65), IMO Res. MSC.97(73)- (2000 HSC Code) 7, IMO Res. MSC.98(73)- (FSS Code) 8, IMO MSC/ Circ.912.	and A3 (2006).
A.1/3.29	Fire hoses with diameter ≤ 52 mm	Reg. II-2/1 Reg. X/3.	0,	Reg. II-2/10, IMO Res. MSC.36(63)-(1994 HSC Code) 7, IMO Res. MSC.97(73)-(2000 HSC Code) 7.	B + D B + E 14540B + F (2004) including A.1 (2007).
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 B + D 60945B + E (2002)B + F including IEC 60945 Corrigendum 1 (2008) or IEC 60945 (2002) including IEC 60945 Corrigendum

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			(1999)	),
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		applicabl	le to	
				OPW.
		a)	Categ	ory
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				A11:2013,
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				60079-1
				(2007)
				including
				IEC
				60079-1
				60079-1 Corrigendum
				Corrigendum
				Corrigendum 1
				Corrigendum

A.1/3.31	Nozzles for fixed sprinkler systems, for high speed craft (HSC)	Item dele	eted as	s it is cove	ered by A.1/3		EN 60079-10-1 (2009), EN 60079-11 (2012), EN 60079-15 (2010), EN 60079-26 (2007).
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 MSC.1/ Circ.1457.	)- Res. MSC. (2010 FTP Code)	
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.	MSC. (2010) FTP Code)	

A.1/3.34	Fire resisting divisions for high speed craft		Reg	IMO Res. — MSC 36(63)- (1994 HSC Code) 7, IMO Res. MSC 97(73)-	IMO Res. B + E B + F MSC 307(88)- (2010 FTP Code).
			_	(2000 HSC Code) 7. IMO MSC.1/ Circ.1457.	
A.1/3.35	Fire doors on high speed craft		Reg	IMO Res. — MSC.36(63)- (1994 HSC Code) 7, IMO	IMO Res. B + D B + E B + F MSC 307(88)-(2010 FTP Code).
				Res. MSC.97(73)- (2000 HSC Code) 7.	
A.1/3.36	Fire dampers on high speed craft		Reg	IMO Res. — MSC.36(63)- (1994 HSC Code) 7, IMO Res. MSC.97(73)-	IMO Res. B + D B + E B + F MSC 307(88)-(2010 FTP Code).
A.1/3.37	Penetrations through fire		Reg.	(2000 HSC Code) 7. IMO Res. —	IMO B + D B + E
	resisting divisions on high speed craft	,	ζ/3.	MSC 36(63)- (1994 HSC	Res. B + F MSC 307(88)- (2010

	(a) electricable transit (b) pipe, duct, trunk etc penet	ts,		_	Code) 7, IMO Res. MSC.97(7: (2000 HSC Code) 7.	FTP Code	e).
A.1/3.38	Portable fire- extinguishing equipment for lifeboats and rescue boats		Reg. III/4, Reg. X/3.	_	Reg. — III/34, IMO Res. — A.951(23), IMO Res. — MSC.36(6: (1994 HSC Code) 8, IMO — Res. MSC.48(6: (LSA Code) I, IV, — V, IMO Res. MSC.97(7: (2000 HSC Code) 8.	inclu A1 (200 EN 3-8 (200 inclu AC (200 EN 3-9 (200 inclu AC (200 EN 3-10 (200 EN 3	6) ding 7), 6) ding 7),
A.1/3.39	Nozzles for equivalent water- mist fire extinguishing systems for machinery spaces and cargo pump rooms		Reg. II-2/1 Reg. X/3, IMO Res.N (FSS Code 7	 //SC.98(7	Reg. II-2/10, IMO Res. MSC.36(6:30)1994 HSC Code) 7, IMO Res. MSC.97(7:(2000 HSC Code) 7,	3)-	11) 11)

			_	IMO Res. MSC 98(73)- (FSS Code) 7, IMO MSC 1/ Circ.1313, IMO MSC 1/ Circ.1458.		
A.1/3.40	Low-location lighting systems (components only)	- Reg. II-2/ - IMO Res. MSC (FSS Code 11.	98(73)-	Reg. — II-2/13, IMO Res. A.752(18), IMO Res. MSC 98(73)- (FSS Code) 11.	Res.	
A.1/3.41	Emergency escape breathing devices (EEBD)	— Reg. II-2/	<u></u>	Reg. — II-2/13, IMO Res. MSC 98(73)- (FSS Code) 3, IMO MSC/ Circ.849.	23269 (2008 and	B + D BH + E BH + F  atively: 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 —

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.485, IMO MSC/Circ.731, IMO MSC/Circ.711, IMO MSC/Circ.71120.	IMO	circuit compressed air breathing apparatus with a hood for escape: — EN
A.1/3.43	Nozzles for deep fat cooking equipment fire extinguishing	_ _ _	Reg. — II-2/1, Reg. — II-2/10, Reg. — X/3.	Reg. II-2/1, Reg. II-2/10, IMO Res.		B + D B + E B + F ).

	systems (automatic or manual type).		_	MSC 97(73)- (2000 HSC Code) 7, IMO MSC 1/ Circ 1433.	
A.1/3.44	Fire-fighters outfit — lifeline	 Reg. II-2/1 Reg. X/3, IMO Res. MSC. (FSS Code) 3.	98(73)-	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. B + D Res. B + E MSC. 98(7F)- (FSS Code) 3, IMO Res. MSC. 307(88)- (2010 FTP Code).
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-2/1 Reg. X/3, IMO Res. MSC. (FSS Code) 5.	98(73)-	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 B + D MSC/B + E Circ.8#8+ F IMO MSC.1/ Circ.1316.

				    -	IMO MSC/ Circ.848, IMO MSC.1/ Circ.1313, IMO MSC.1/ Circ.1316.		
A.1/3.46	Equivalent fixed gas fire extinguishing systems for machinery spaces (aerosol systems)		Reg. II-2/1 Reg. X/3, IMO Res. MSC (FSS Code 5.	.98(73)-	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.1/ Circ.1270 including Corrigendum 1 IMO MSC.1/ Circ.1313.		1270
A.1/3.47	Concentrate for Fixed High Expansion Foam Fire Extinguishing Systems for Machinery Spaces and Cargo Pump Rooms. <i>Note:</i> The fixed high	_	Reg. II-2/1	0.	Reg. II-2/10, IMO Res. MSC.98(73)- (FSS Code) 6.	IMO MSC Circ.o	B + D B + E B + F 570.

	expansion foam fire extinguishing system (including those systems which use inside air from their working spaces for their intended performance), for machinery spaces and cargo pump rooms must still be tested with the approved concentrate to the satisfaction of the Administration	-					
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-2/1 Reg. X/3.	0,	Reg. II-2/10, IMO Res. MSC.36(63)-(1994 HSC Code) 7, IMO Res. MSC.97(73)-(2000 HSC Code) 7.	IMO MSC Circ.	B+D B+E B+F 387.
A.1/3.49	Fixed water- based fire- fighting systems for ro-ro spaces, vehicle spaces and special category spaces		Reg. II-2/1 Reg. II-2/2 Reg. X/3, IMO Res. MSC (FSS	<del></del>	Reg. II-2/19, Reg. II-2/20, IMO Res. MSC 36(63)- (1994 HSC Code) 7,	IMO MSC Circ.	B + D B + E B + F 1430.

	based syste as per Circ. Claus 4:	ms 1430 se rmance-t ms	Code 7.	)— —	IMO Res. MSC,97(73 (2000 HSC Code) 7. IMO Res. MSC,98(73 (FSS Code) 7.		
A.1/3.50	Protective clothing resistant to chemical attack	Moved to	o A.2/.	3.9			
A.1/3.51	(b) Power suppl equip (c) Heat	tol ating ment br y ment tors — tors te	Reg. II-2/7 Reg. X/3, IMO Res. MSC (FSS Code 9.	.98(73)-	Reg.   Cont.   II-2/7, indic   Equip.   Res.   Elect.   MSC.   366(63)   (1994 in shifts)   Francisco   Francisco	oment. rical Blations ips:  EN 54-2 (1997 inclue AC(1 B)- and A1(2 er supply oment:  EN 54-4 (1997 B)- inclue AC(1 A1(2 and A2(2	ding 999) 006). 7) ding 999), 002)

	detectors	including
	using	A1(2002).
	scattered	Smoke
	light,	detectors —
	transmitted	Point
	light	detectors
	or	using
	ionization	scattered
(a)	Flame	
(e)		light,
	detectors:	transmitted
	Point	light or
(0)	detectors	ionization:
(f)	Manual	— EN
	call	54-7
	points	(2000)
(g)	Short	including
	circuit	A1(2002)
	isolators	and
(h)	Input/	A2(2006).
	output	Flame
	devices	detectors —
(i)	Cables	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
		60332-1-2
		(2004).

					And, as applicable electrical electroni installation ships:	(2003) le, l and c ons IEC 60092 (2001) including IEC 60092	2-504 ) ding 2-504 gendum ),
A.1/3.52	Non-portable and transportable fire extinguishers	Reg. II-2/1 Reg. X/3.		(1994 HSC Code 7, IMO Res.	0 <del>,</del> 36(63) 97(73)-		3). 1
A.1/3.53	Fire alarm devices — Sounders	 Reg. II-2/7 Reg. X/3, IMO Res. MSC (FSS Code 9.	.98(73)-	II-2/7 IMO Res. MSC (1994 HSC Code 7, IMO Res.	36(63)-	EN 54-3 (2001 included A1(20 and A2(20 IEC	ding 002) 006), 2-504

			_	HSC Code 7, IMO Res. MSC (FSS Code 9, IMO MSC Circ.		60092- Corrigo 1 (2011) IEC 60533 (1999)	endum
A.1/3.54	Fixed oxygen analysis and gas detection equipment	Reg. II-2/4 Reg. VI/3.	<u> </u>	(FSS Code 15. bined	.98(73)- ) and as applicab (a) 1/	60092H (2001)F includi IEC 60092- Corrige 1 (2011) IEC 60533 (1999) Ie to: Catego 4: (safe area)  Catego 3: (explos gas atmosp —	B + F ng .504 endum  envry EN .50104 (2010).

							lly: IMO MSC Circ.	
A.1/3.55	Dual purpose type nozzles (spray/jet type)		Reg. II-2/1 Reg. X/3.	0,	II-2/1 IIMO Res. MSC (1994 HSC Code 7, IIMO Res. MSC (2000 HSC Code 7.	Hand-held branchpip for fire service us Smooth b jet and/or fixed spra jet angle branchpip PN 16:	se — tion bes EN 15182 (2007 includ A1(2007 includ	2-1 ling (2009), (2-2) (1) (2-1) (1) (2-1) (1) (2009).
A.1/3.56	Fire hoses (reel type)	_	Reg. II-2/1 Reg. X/3.	0,	(1994 HSC Code 7, IMO Res.	36(63)-	EN 671-1 (2012	B + D B + E B + F

					Code) 7.			
A.1/3.57	Medium Expansion Foam Fire Extinguishing Systems components — Fixed Deck Foam for Tankers		Reg. II-2/1		Reg. II-2/10. IMO Res. MSC 98 (FSS Code) 14, IMO MSC 1/Circ. 12: IMO MSC 1/Circ. 12: 12: 12: 12: 13: 14: 14: 14: 14: 14: 14: 14: 14: 14: 14	8(73)-	IMO MSC Circ.1	B + D B + E B + F 798.
A.1/3.58	Fixed Low Expansion Foam Fire Extinguishing Systems components for Machinery Spaces and Tanker Deck Protection.		Reg. II-2/1	<u>0.</u>	Reg. – II-2/10, IMO Res. – MSC 98 (FSS Code) 6, 14, IMO MSC 1/Circ. 12: IMO MSC 1/Circ. 12: 12: 12: 12: 13: 14: 14: 14: 14: 14: 14: 14: 14: 14: 14	8(73)-	MSC	1312/
A.1/3.59	Expansion Foam for Fixed Fire Extinguishing Systems for Chemical Tankers	_	Reg. II-2/1 IMO Res. MSC (IBC Code	.4(48)-	IMO – Res. MSC.4( (IBC – Code) 11, IMO MSC/ Circ.55:	(48)-	MSC	1312/
A.1/3.60	Nozzles for fixed pressure water- spraying fire- extinguishing systems for cabin balconies	_	Reg. II-2/1 IMO Res.M (FSS Code 7.	0, — ASC.98(7	Reg. II-2/10, IMO 3Res. MSC 98 (FSS Code) 7,		IMO MSC Circ.	

				IMO MSC 1/ Circ. 1313.	
A.1/3.61	(a) (b)	Inside air high expansion foam systems for the protection of machinery spaces, cargo pump rooms, vehicle and ro- ro spaces, special category spaces and cargo spaces. Outside air high expansion foam systems for the protection of machinery spaces, cargo pump rooms, vehicle air high expansion foam systems for the protection of machinery spaces, cargo pump rooms, vehicle and ro- ro spaces, special category spaces	Reg. II-2/1 0.	Reg. II-2/10, IMO Res. MSC.98(73)-(FSS Code) 6.	IMO B + E B + F Circ. 1384.

	and							
	cargo							
	space	S.						
	<i>Note:</i> Inside/							
	Outside							
	air high							
	expansion							
	foam systems							
	for the							
	protection of							
	machinery							
	spaces, cargo							
	pump rooms,							
	vehicle and							
	ro-ro spaces,							
	special							
	category							
	spaces and							
	cargo spaces							
	shall be tested							
	with the							
	approved							
	concentrate							
	to the							
	satisfaction							
	of the							
	Administration							
					_			
A.1/3.62	Dry chemical		Reg.		Reg.	_	IMO	B + D
	powder		II-2/1		II-2/1,		MSC	B + E B + F
	extinguishing		11 2/1	<u> </u>	IMO		Circ.	18 + F 1315
	systems				Res.	(40)	CIIC.	.515.
					MSC.50	(48)-		
					(IGC			
					Code)			
					11.			
A.1/3.63	Sample		Reg.		Reg. –	_	IMO	B + D
	extraction		II-2/7	,	II-2/7			B + E
	smoke		Reg.		Reg.			. <b>928</b> (+7 <b>1</b> 5°)-
	detection		II-2/1		II-2/19,		(FSS	, ,
	systems		Reg.	<u> </u>	Reg.		Code	)
	components		II-2/2		II-2/20,		10,	
					IMO a			
					Res.		Contr	rol
					MSC 98	8(73)-	and	
					(FSS		indica	ating
					Code)		equip	ment.
					10.		Elect	
								lations
							in	
							ships	
							_	EN
								54-2

			(1997)
			including
			AC(1999)
			and
			A1(2006).
		Powe	r
		suppl	
			ment:
		cquip	EN
			54-4
			(1997)
			including
			AC(1999),
			A1(2002)
			and
			A2(2006).
		Agnie	
		Aspir	ing -
		smok	
		detec	
		<del>-</del>	EN
			54-20
			(2006)
			including
			AC(2008).
		And	AC(2000).
		And,	
		as	1.1
		applic	cable,
		electr	ical
		and	
		electr	onic
			lations
		in	
		ships	IEC
			IEC
			60092-504
			(2001)
			including
			IEC
			60092-504
			Corrigendum
			1
			_
			(2011),
			IEC
			60533
			(1999).
		And,	
		as	
		applic	cable
		for	Julio 10
			airra
		explo	
		atmos	spheres:
		<del>-</del>	EN
			60079-0
•	•	•	•

								(2012) including A11:2013.
A.1/3.64	C class Divisions	_	Reg. II-2/3	<b>3</b>	Reg. II-2/3 Reg. II-2/9		IMO Res. MSC (2010 FTP Code	
A.1/3.65	Fixed hydrocarbon gas detection system		Reg. II-2/4		Reg. II-2/4 IMO Res. MSC (FSS Code 16, IMO MSC Circ.		MSC Circ. EN 60079 (2012 include A11:2 EN 60079 (2007) include include IEC 60092	ding 2013. 9-29-1 7), 2-504 ) ding 2-504 gendum
A.1/3.66	Evacuation guidance systems used as an alternative to low-location lighting systems	_	Reg. II-2/1	3.	Reg. II-2/1 IMO MSC Circ.	.1/	IMO MSC Circ.	B+D B+E B+F 1168.
A.1/3.67 Refer to note b) of this Annex A.1	Helicopter facility foam fire-fighting appliances	_	Reg. II-2/1	<u> </u>	Reg. II-2/1 IMO MSC Circ.	.1/	EN 1356: (2003 includ A1 (2007	ding
A.1/3.68 Ex A.2/3.22	Galley Exhaust Duct Fixed Fire	_	Reg. II-2/9		Reg. II-2/9	<u> </u>	ISO 1537	B + D B + E 162009)

## 4. **Navigation equipment**

*Notes applicable to section 4*: Navigation equipment.

Column 4: Navigational equipment shall comply with relevant parts of IMO's Assembly Resolution A.1021(26) "Code on alerts and indicators, 2009", and MSC Resolution MSC.302(87) "Adoption of performance standards for bridge alert management", as applicable.

## Column 5:

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

- IEC 61162-1 ed4.0 (2010-11) Part 1: Single talker and multiple listeners
- IEC 61162-2 ed1.0 (1998-09) Part 2: Single talker and multiple listeners, high-speed transmission
- IEC 61162-3 ed1.2 Consol. with am1 ed. 1.0 (2010-11) and am2 ed. 1.0 (2014-07) 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
  - IEC 61162-3-am2 ed1.0 (2014-07) Amendment 2 Part 3: Serial data instrument network
- 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:

- EN 61162-1 (2011) Part 1: Single talker and multiple listeners
- EN 61162-2 (1998) Part 2: Single talker and multiple listeners, high-speed transmission
- EN 61162-3 (2008) Part 3: Serial data instrument network
  - EN 61162-3-am1 (2010) Amendment 1 Part 3: Serial data instrument network
  - IEC 61162-3-am2 ed1.0 (2014-07) Amendment 2 Part 3: Serial data instrument network
- 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	Testing standards	Modules for conformity assessment
-----	---------------------	---	--	----------------------	--

			IMO, a applica and IT recommas applica	ible, U nendai	tions,		
1	2	3	4		5		6
A.1/4.1	Magnetic compass Class A for ships		Reg. — V/18, Reg. — X/3, IMO Res. — MSC.36(63)-(1994 HSC — Code) 13, IMO Res. MSC.97(73)-(2000 HSC — Code) 13.	(1994 HSC Code 13, IMO Res. MSC (2000 HSC Code 13.	2(X), 4(17), 36(63)- 97(73)-	(1973 ISO 2586. (2009 EN 6094 (2002 inclustification of the control of the contro	2), 5 2) ding 5 gendum 3). 2 2) ding 5 gendum 3).
A.1/4.2	Transmitting heading device THD (magnetic method)	_ _ _	Reg. — V/18, Reg. — V/19, Reg. X/3, — IMO Res. MSC.36(63)-(1994 HSC Code) 13,	IMO Res.	4(17), .36(63)-	(2002 including IEC 6094	5 gendum 3),

		IMO Res. MSC (2000 HSC Code 13.	.97(73)-	(2000 HSC Code) 13, IMO Res. MSC, IMO Res.	146(73),	ISO   22090-2 (2014), IEC   62288   Ed.   2.0 (2014-07). Or, IEC   60945 (2002) including IEC   60945 (2008), IEC   61162   series. ISO   22090-2 (2014), IEC   62288   Ed.   2.0 (2014-07).
A.1/4.3	Gyro compass	Reg. V/18.	_	Reg. V/19, IMO Res. A.424 IMO Res. MSC.		EN B + D ISO B + E 8728 B + F (1998)G EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series, IEC 62288 Ed. 2.0 (2014-07). Or,

					ISO 8728 (1997), IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61162 series. IEC 62288 Ed. 2.0 (2014-07).
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	(1994 HSC Code 13, IMO Res.		Reg. V/19, IMO Res. A.224(VII), IMO Res. A.694(17), IMO Res. MSC 36(63)-(1994 HSC Code) 13, IMO Res. MSC 74(69) Annex 4, IMO — Res. MSC 97(73)-(2000 — HSC Code) 13, 13, 1100 —	EN B + D ISO B + E 9875 B + F (2001)G including ISO Technical Corrigendum 1: 2006, EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series, IEC 62288 Ed.

				IMO Res.		2.0 (2014-07).
				MSC	.191(79).	Or, ISO
						9875
						(2000)
						including ISO
						Technical
						Corrigendum 1:
						2006,
					_	IEC
						60945 (2002)
						including
						IEC   60945
						Corrigendum
						1 (2008)
						(2008), IEC
						61162
						series, IEC
						62288
						Ed. 2.0
						(2014-07).
A.1/4.7	Speed and	_	Reg. —	Reg.	_	EN B+D
	distance measuring		V/18, Reg. —	V/19, IMO		60945B + E (2002)B + F
	equipment		X/3,	Res.		including
	(SDME)		IMO Res. —	A.694 IMO	<del>1</del> (17),	IEC   60945
			MSC 36(63)-	Res.		Corrigendum
			(1994 HSC —	A.824 IMO	<del>1</del> (19),	(2008)
			Code)	Res.		(2008), EN
			13,	MSC	36(63)-	61023
			IMO Res.	(1994 HSC		(2007), EN
			MSC 97(73)-	Code	)	61162
			(2000 HSC —	13, IMO		series, IEC
			Code)	Res.		62288
			13.	MSC (2000	.97(73)-	Ed. 2.0
				HSC		(2014-07).
				Code	)	Or,
				13,		IEC   60945
	I	l .	I		I	T

				_	IMO Res. MSC	.191(79). 	(2002) including IEC 60945 Corrigendum 1 (2008), IEC 61023 (2007), IEC 61162 series, IEC 62288 Ed. 2.0 (2014-07).
A.1/4.8	Rudder angle, rpm, pitch indicator	Moved to	o A.1/4	4.20, A.1/	4.21 a	nd A.1/4.	22
A.1/4.9	Rate-of-turn indicator		(1994 HSC Code 13, IMO Res.	97(73)-	(1994 HSC Code 13, IMO Res. MSC (2000 HSC Code 13, IMO Res.	4(17), ————————————————————————————————————	EN B + D 60945B + E (2002)B + F including IEC 60945 Corrigendum 1 (2008), EN 61162 series, ISO 20672 (2007) including Corrigendum 1 (2008), IEC 62288 Ed. 2.0 (2014-07). Or, IEC 60945 (2002) including IEC 60945 Corrigendum

		1 (2008), — IEC 61162 series, — ISO 20672 (2007) including Corrigendum 1 (2008), — IEC 62288 Ed. 2.0 (2014-07).
A.1/4.10	Direction finder	Deliberately left blank
A.1/4.11	Loran-C equipment	Moved to A.2/4.38
A.1/4.12	Chayka equipment	Moved to A.2/4.39
A.1/4.13	Decca navigator equipment	Deliberately left blank
A.1/4.14	GPS equipment	—       Reg. — Reg. — EN B + D         V/18, V/19, 60945B + E         —       Reg. — IMO (2002)B + F         X/3, Res. including         —       IMO A.694(17), IEC Res. — IMO 60945         MSC 36(63)- Res. — Corrigendum (1994 MSC 36(63)- 1 HSC (1994 (2008), Code) HSC — EN RSC — EN MSC 97(73)- MSC 97(73)- 61108-1         —       IMO — IMO (2003), Res. — EN MSC 97(73)- 61162 (2000 (2000 series, HSC — IEC Code) Code), 62288         HSC — HSC — IEC Code) — IMO Res. — IEC Code) Code) — Code) — G2288         13. — IMO Red. Res. — IMO Res. — IEC MSC 1112(73), (2014-07).         — IMO Res. — IEC MSC 191(79). 60945 (2002)

				_	including IEC 60945 Corrigendum 1 (2008), IEC 61108-1 Ed.2.0 (2003), IEC 61162 series, IEC 62288 Ed. 2.0 (2014-07).
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. — — —	MSC. (1994 HSC Code) 13, IMO )- Res. MSC. (2000 HSC Code) 13, IMO Res. MSC. IMO Res.	36(63)- — 97(73)- — 113(73),	EN B + D 60945B + E (2002)B + F including IEC 60945 Corrigendum 1 (2008), EN 61108-2 (1998), EN 61162 series, IEC 62288 Ed. 2.0 (2014-07). Or, IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61108-2 Ed.1.0 (1998),

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					_	IEC
						61162
						series,
						IEC
						62288
						Ed.
						2.0
						(2014-07).
A.1/4.16	Heading	D	_	Reg.	_	ISO B+D
	control	— Reg		V/19,	,	11674B + E
	system (HCS)	V/1	8 —	IMO		(2006)B + F
				Res.	—	EN G
				A.342	2(IX),	60945
			_	IMO		(2002)
				Res.		including
				A.694	<del>1</del> (17),	IEC
				IMO		60945
				Res.		Corrigendum
				MSC	.64(67)	1
				Anne	x 3,	(2008),
				IMO		EN
				Res.		61162
				MSC	.191(79).	series,
						EN
						62288
						(2008).
						Or,
						ISO
						11674
						(2006),
					_	IEC
						60945
						(2002)
						including
						IEC
						60945
						Corrigendum
						1
						(2008),
					<u> </u>	IEC
						61162
						series,
					<u> </u>	IEC
						62288
						Ed.1.0(2008).
A.1/4.17	Mechanical pilot hoist	Moved to A.	1/1.40			
A.1/4.18	Search	— Reg	<u> </u>	Reg.		EN B+D
11.1/ 1.10	and rescue			III/6,		60945B + E
	locating	— Reg		Reg.		(2002)B + F
	locating	IV/		III/26		including
		1 V /	<b>-</b> Ţ,	111/20	,	meruputg

	devices (SRLD): 9 GHz SAR transponder (SART)		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. 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)	IEC   60945   Corrigendum   1   (2008), EN   61097-1 (2007). Or, IEC   60945 (2002)   including IEC   60945   Corrigendum   1   (2008), IEC   61097-1 (2007).
A.1/4.19	Radar equipment for high-speed craft	Moved to	o 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. — 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	EN B + D 60945B + E (2002)B + F includ@g IEC 60945 Corrigendum 1 (2008), EN 61162 series, ISO 20673 (2007), IEC 62288 Ed.

					2.0 (2014-07). Or, IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61162 series, ISO 20673 (2007), IEC 62288 Ed. 2.0 (2014-07).
A.1/4.21	Propeller revolution indicator	Reg. — V/18, Reg. — X/3, IMO Res. — MSC,36(6 (1994 HSC Code) 13, IMO Res. — MSC,97(2000 HSC Code) 13. — —	MSC. (1994 HSC Code 13, IMO 73)- Res. MSC. (2000 HSC Code 13, IMO Res.	36(63)- - ) - 97(73)-	EN B + D 60945B + E (2002)B + F including IEC 60945 Corrigendum 1 (2008), EN 61162 series, ISO 22554 (2007), IEC 62288 Ed. 2.0 (2014-07). Or, IEC 60945 (2002) including IEC 60945 Corrigendum

			_	1 (2008), IEC 61162 series, ISO 22554 (2007), IEC 62288 Ed. 2.0 (2014-07).
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).	EN B + D 60945B + E (2002)B + F including IEC 60945 Corrigendum 1 (2008), EN 61162 series, ISO 22555 (2007), IEC 62288 Ed. 2.0 (2014-07). Or, IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61162 series, ISO 22555 (2007), IEC 61162 series, ISO 22555 (2007), IEC 61162 series, ISO 22555 (2007), IEC 61162 series, ISO 22555

		2.0 (2014-07).
A.1/4.23	Compass for lifeboats and rescue boats	<ul> <li>Reg. — Reg. — ISO B + D</li> <li>III/4, III/34, 1069 B + E</li> <li>Reg. — IMO (1973)B + F</li> <li>X/3, Res. — ISO G</li> <li>IMO MSC 48(66)- 25862</li> <li>Res. (LSA (2009), IEC (1994 IV, 60945</li> <li>HSC V, (2002)</li> <li>Code) — IMO including IEC</li> <li>IMO MSC 36(63)- 60945</li> <li>Res. (1994 Corrigendum MSC 97(73)- HSC (2000 Code) (2008).</li> <li>HSC 8, Code) 13, 13. — IMO Res. MSC 97(73)- (2000 HSC Code) (2000 HSC Code) 8, 13.</li> </ul>
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.   —       EN   B + D             V/18, V/20, 60945B + E         —       Reg.   —       IMO   (2002)B + F           V/20, Res. including

			Reg. X/3, 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) 13, IMO Res. MSC 97(73)- (2000 HSC Code) 13, IMO Res. MSC 191(79), IMO Res. MSC 3333(90).	IEC   60945   Corrigendum   1   (2008), EN   61162   Series, EN   61996-1   (2013), IEC   62288   Ed.   2.0   (2014-07). Or, IEC   60945   (2002)   including IEC   60945   Corrigendum   1   (2008), IEC   61162   Series, IEC   61996-1   Ed.2.0   (2013-05), IEC   62288   Ed.   2.0   (2014-07).
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)-	Reg. — V/19, IMO Res. A.694(17), IMO Res. MSC 36(63)-(1994 HSC — Code) 13 IMO Res.	EN B + D 60945B + E (2002)B + F including IEC 60945 Corrigendum 1 (2008), EN 61162 Series,

			(2000	)	MSC	.9 <del>7</del> (73)-	EN
			HSC		(2000	` ′	61174
			Code	)	HSC		(2008),
			13.	,	Code	)—	ÎEC
					13,		62288
					IMO		Ed.
					Res.		2.0
					MSC	.191(79),	(2014-07).
				_	IMO		Or,
					Res.		IEC
					MSC	.232(82),	60945
				_	IMO		(2002)
					SN.1/		including
					Circ.2	266.	IEC
				[ECDIS]			60945
				up and R	CDS		Corrigendum
				are only			1
				applicabl			(2008),
				when thi			IEC
				functiona			61162 Sarias
				is include the ECD			Series, IEC
				The mod			61174
				B certific			(2008),
				shall indi			IEC
				whether			62288
				options v			Ed.
				tested].			2.0
				,			(2014-07).
A.1/4.31	Gyro	_	Reg.		IMO	_	ISO B + D
	compass for		X/3,		Res.		16328B + E
	high-speed	_	IMO			<b>4</b> (17),	(2014)B + F
	craft		Res.		IMO		EN G
				.36(63)-	Res.	1 (10)	60945
			(1994)	<del>-</del>	A.82	1(19),	(2002)
			HSC		IMO		including
			Code 13,	)	Res.	.36(63)-	IEC   60945
			IMO		(1994)		Corrigendum
			Res.		HSC		1
				.97(73)-	Code		(2008),
			(2000		13,		EN EN
			HSC		IMO		61162
			Code	)	Res.		Series,
			13.	•		. <del>97</del> (73)-	IEC ,
					(2000	, ,	62288
					HSC		Ed.
					Code	)	2.0
					13,		(2014-07).
				_	IMO		Or,
					Res.		
					1 100	.191(79).	

							ISO
							16328
							(2014),
						_	iec
							60945
							(2002)
							including
							IEC
							60945
							Corrigendum
							1
							(2008),
						_	IEC
							61162
							Series,
							IEC
							62288
							Ed.
							2.0
							(2014-07).
					_		<u>`</u>
A.1/4.32	Universal	_	Reg.	_	Reg.	_	$EN \mid B + D$
	automatic		V/18	1	V/19,		60945B + E
	identification	_	Reg.	_	IMO		(2002)B + F
	system		X/3,		Res.		including
	equipment	_	IMO		A.694	•	IEC
	(AIS)		Res.	26(62)	(17),		60945
				<del>36</del> (63)-	IMO		Corrigendum
			(1994)	<del> </del>	Res.	26(62)	1 (2000)
			HSC			36(63)-	(2008),
			Code	)	(1994		EN
			13,		HSC		61162
			IMO		Code)		Series,
			Res.	07(72)	13,	_	EN
				9 <del>7</del> (73)-	IMO		61993-2
			(2000)	1	Res.	74(60)	(2013),
			HSC		IMO	<del>74</del> (69),	IEC
			Code 13.	) <del> </del>	Res.		62288 Ed.
			13.			97(73)-	2.0
					(2000)		(2014-07).
					HSC		Or,
					Code)		IEC
					13,		60945
							(2002)
					IMO Res.		including
						191(79),	
					ITU-	171(/7),	60945
					R		Corrigendum
					M.		1
						5(2014).	(2008)
				Note:	13/1	J(2014).	(2000),
				ITU-R M	<b>л</b>		
	I			11 O-IX IV	1.		

			1371-5(201) shall only be applicable in accordance with requirement of IMO Res.MSC.74	ts	— — )).	IEC 61162 Series, IEC 61993-2 (2012), IEC 62288 Ed. 2.0 (2014-07).
Track control system (working at ship's speed from minimum manoeuvring speed up to 30 knots)	— Re V	eg	— IIM Re A. — IIM Re M — IIM Re	MO es. ISC. MO es.	— (17), 74(69), — 191(79). — — — — — — — —	EN B + D 60945B + E (2002 B + F including IEC 60945 Corrigendum 1 (2008), EN 61162 Series, IEC 62065 Ed.2.0 (2014-02), IEC 62288 Ed. 2.0 (2014-07). Or, IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61162 Series, IEC 61162 Series, IEC 62065 Ed.2.0 (2014-02), IEC 62288 Ed.

							2.0
							(2014-07).
A.1/4.34	Radar				Dog		EN B+D
A.1/4.34			Reg.		Reg.	_	60945B + E
	equipment		V/18.		V/19.		
	CAT 1		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		IMO		(2002)B + F
					Res.	\/T.TTT\	including
						B(VIII),	IEC
				_	IMO		60945
					Res.		Corrigendum
					A.694	<del>l</del> (17),	1
				_	IMO		(2008),
					Res.		EN
					A.823	8(19),	61162
					IMO		Series,
					Res.	_	IEC
					MSC	191(79),	62288
					IMO	( //	Ed.
					Res.		2.0
						192(79)	(2014-07).
					ITU-		EN EN
					R		62388
					M.		(2013).
						4(04/11)	
					11//-	4(04/11).	
							IEC
							60945
							(2002)
							including
							IEC
							60945
							Corrigendum
							1
							(2008),
						_	iec
							61162
							Series,
						_	IEC ,
							62288
							Ed.
							2.0
							(2014-07).
						_	IEC
							62388
							Ed.2.0
							(2013-06).
A.1/4.35	Radar		ъ		Reg.		EN $B + D$
	equipment		Reg.		V/19,		60945B + E
	CAT 2		V/18.	_	IMO		(2002)B + F
					Res.		including
						B(VIII),	IEC
				_	IMO	· ( ' · · · · ),	60945
					Res.		Corrigendum
					A.694	1(17)	Compendam
					A.094	t(1/ <i>)</i> ,	

A.1/4.36   Radar equipment CAT 3   Radar equipment C		1				T		4
MSC 1491(79), EN 61162   Res.   Series, MSC 192(79), IEC     - ITU					_			I
A.1/4.36   Radar equipment CAT 3   Radar equipment CAT 3   Radar equipment CAT 3   Reg. V/19   EN   Reg. CAT 3   Reg. CA								
Res. MSC 1492(79), IEC   ITU- 62288   Fd. MSC 1492(79), IEC   ITU- 62288   Fd. MSC 1404/11), (2014-07), — EN 62388 (2013). Or, — IEC 60945 (2002), including IEC 60945 (2002), including IEC 660945 (2008), — IEC 61162 Series, — IEC 62288 Ed. 2.0 (2014-07), — IEC 62288 Ed. 2.0 (2014-07), — IEC 62388 Ed. 2.0 (2013-06).  A.1/4.36 Radar equipment CAT 3 Reg. — Reg. — EN B+D (2002B+F including includi							. <del>19</del> 1(79),	
MSC 1492(79), IEC   TTU- 62288   R   Ed.   2.0   1177-4(04/11). (2014-07).   EN   62388   (2013).   Or,   IEC   60945   (2002)   including   IEC   60945   (2002)   including   IEC   61162   Series,   Ed.   2.0   (2014-07).   EC   61162   Series,   Ed.   2.0   (2013-06).   EC   62288   Ed.   2.0   (2013-06).   EC   62388   Ed.   2.0   (2013-06).   EC   63388   Ed.   2.0   (2013-06).   EC   63388   Ed.   2.0   (2013-06).   EC   60945   EC   EC   EC   EC   EC   EC   EC   E					_			
A.1/4.36  Radar equipment CAT 3  Radar equipment CAT 3  Res. V/18  A.1/4.36  Radar equipment CAT 3  Res. Sec. including includ								
R M. 2.0 1177-4(04/11). (2014-07). — EN 62388 (2013). Or, — IEC 60945 (2002). including IEC 60945 Corrigendum 1 — (2008), — IEC 61162 Series, — IEC 62288 Ed. 2.0 (2014-07). — IEC 62388 Ed. 2.0 (2014-07). — IEC 62388 Ed. 2.0 (2013-06).  A.1/4.36  Radar equipment CAT 3  Reg. — Reg. — EN B + D (2002B + F including Res. A.278(VIII), IEC — IMO Res. A.278(VIII), IEC — IMO 60945 Res.						MSC	. <del>19</del> 2(79),	IEC
A.1/4.36  Radar equipment CAT 3  Radar equipment CAT 3  Radar equipment CAT 3  A.1/4.36  Radar equipment CAT 3  Ra						ITU-		62288
A.1/4.36  Radar equipment CAT 3  Ridar A.1/4.36  Ridar A.1/4.3						R		Ed.
A.1/4.36  Radar equipment CAT 3  Radar equipm								
A.1/4.36  Radar equipment CAT 3  Radar equipm						1177-	4(04/11).	(2014-07).
A.1/4.36   Radar equipment CAT 3								
A.1/4.36  Radar equipment CAT 3  Reg. V/18.  Reg. W/18.  Reg. W/18.  Reg. W/19.  Reg. W/19								62388
A.1/4.36  Radar equipment CAT 3  Reg. V/18.  Reg. W/18.  Reg. W/18.  Reg. W/19.  Reg. W/19								(2013).
A.1/4.36  Radar equipment CAT 3  Ridar equipm								
A.1/4.36  Radar equipment CAT 3  Radar equipm								
A.1/4.36   Radar equipment CAT 3   Reg.   W/18   Res.   COTTIGENDUM								
A.1/4.36   Radar equipment CAT 3   Reg. W/18   Res.   CAT 3   Reg. W/19   G0945   G0								
A.1/4.36   Radar equipment CAT 3   Reg. V/18   MSC   191(79), 61162   MSC   192(79), 62288   EN   EN   MSC   192(79), 62288   EN   EN   EN   EN   EN   EN   EN								
A.1/4.36  Radar equipment CAT 3  Reg. V/18  Reg. V/18  Reg. W/18  Reg. W/18  Reg. W/19  Reg. D/19								
A.1/4.36  Radar equipment CAT 3  Reg. V/18  Reg. V/18  Reg. DATE OF THE CHAPTER AND CATE OF THE CHAPTE								
A.1/4.36  Radar equipment CAT 3  Reg. V/18  Reg. V/18  Reg. V/19  Reg. V/19  Res. includ@ig  A.278(VIII), IEC  IMO  Res. Corrigendum  A.694(17), 1								
A.1/4.36   Radar equipment CAT 3   Reg.   W/18   Res.   IEC   1000   1								F
A.1/4.36  Radar equipment CAT 3  Reg. V/18								
A.1/4.36  Radar equipment CAT 3  Reg. V/18. — Reg. — Reg. — EN B + D Res. including A.278(VIII), IEC IMO 60945 Res. Corrigendum A.694(17), 1 IMO 60945 Res. — EN MSC 191(79), 61162 IMO Res. — EN MSC 191(79), 61162 IMO Series, Res. — IEC MSC 191(79), 61162 IMO Res. — IEC MSC 192(79), 62288 ITU- Ed. Res. — ITU- Ed. Res. — ITU- Ed. Res. — ITU- Ed. Res. — IEC MSC 192(79), 62288 ITU- Ed. Res. — ITU- E								
A.1/4.36   Radar equipment CAT 3								
Radar equipment CAT 3								
A.1/4.36  Radar equipment CAT 3  Reg. V/18  Reg. V/18  Reg. V/19  Reg. V/19  Reg. DED								
A.1/4.36  Radar equipment CAT 3  Reg. V/18  Reg. V/18  Reg. V/19  Reg. V/19  Reg. D  R								
A.1/4.36  Radar equipment CAT 3  Reg. V/18  Reg. V/18  Reg. V/19  Reg. D  Reg.								
A.1/4.36   Radar equipment CAT 3   — Reg.   —								
A.1/4.36   Radar equipment CAT 3   - Reg.   - Reg.   - EN   B + D   (2002 B + F   Res.   IMO   (2002 B + F   Res.   IMO   (2004 B + F   IMO   (2004 B + IMO   (2004 B + IMO   IMO   IMO   (2004 B + IMO   IMO   IMO   IMO   (2004 B + IMO   IMO   IMO   IMO   (2004 B + IMO								I
Radar equipment CAT 3   Reg.								
Radar equipment CAT 3   Reg.   Reg.   Reg.   Ed.2.0 (2013-06).								
A.1/4.36  Radar equipment CAT 3  Reg. V/19								
A.1/4.36  Radar equipment CAT 3  Reg. V/19, 60945B + E CAT 3  IMO (2002)B + F Res. Including A.278(VIII), IEC IMO 60945 Res. Corrigendum A.694(17), 1 IMO (2008), Res. MSC 191(79), 61162 IMO Series, Res. IEC MSC 192(79), 62288 ITU- R ITU- Ed. R 2.0								
equipment CAT 3								<u> </u>
CAT 3    V/18	A.1/4.36			Daa			—	
Res.   INO   (2002)   1			_	Keg.				
A.278(VIII), IEC  IMO Res. Corrigendum A.694(17), 1  IMO (2008), Res. — EN MSC.191(79), 61162  IMO Series, Res. — IEC MSC.192(79), 62288  ITU- R 2.0		CAT 3		V/18.				
- IMO 60945 Res. Corrigendum A.694(17), 1 - IMO (2008), Res EN MSC 191(79), 61162 - IMO Series, Res IEC MSC 192(79), 62288 - ITU- R 2.0								
Res.   Corrigendum   A.694(17), 1						A.278	B(VIII),	
A.694(17), 1 IMO (2008), Res. — EN MSC 191(79), 61162 — IMO Series, Res. — IEC MSC 192(79), 62288 — ITU- Ed. R 2.0						IMO		
— IMO (2008),  Res. — EN  MSC 191(79), 61162  — IMO Series,  Res. — IEC  MSC 192(79), 62288  — ITU- Ed.  R 2.0								Corrigendum
Res. — EN MSC 191(79), 61162 — IMO Series, Res. — IEC MSC 192(79), 62288 — ITU- Ed. R 2.0						A.694	<del>1</del> (17),	1
MSC 191(79), 61162  — IMO Series, Res. — IEC  MSC 192(79), 62288  — ITU- Ed. R 2.0					_	IMO		(2008),
— IMO Series,  Res. — IEC    MSC 192(79), 62288    — ITU- Ed.    R 2.0						Res.		EN
— IMO Series,  Res. — IEC    MSC 192(79), 62288    — ITU- Ed.    R 2.0							.191(79),	
Res. — IEC   MSC 192(79), 62288   ITU-   Ed.   R   2.0							. , , ,	
MSC 192(79), 62288  — ITU- Ed. 2.0								
— ITU- Ed. 2.0							.192(79),	
R 2.0					_		` ''	
		ı		'		ļ		` ' '

A.1/4.37	Radar equipment for high speed craft applications (CAT 1H and CAT 2H)	(1994 HSC Code) 13, IMO Res.	97(73)-	IMO Res. A.278 IMO Res. MSC (1994 HSC Code 13, IMO Res. MSC (2000 HSC Code	97(73)-	(2013). Or, IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61162 Series, IEC 62288 Ed. 2.0 (2014-07). IEC 62388 Ed.2.0 (2013-06).  EN B+D 60945B+E (2002)B+F including IEC 60945 Corrigendum 1 (2008), EN 61162 Series, IEC 62288 Ed. 2.0 (2014-07). EN 61162 Series, IEC 62288 Ed. 2.0 (2014-07). EN 61162
		(2000 HSC Code)		13, IMO Res. MSC (2000 HSC Code 13, IMO Res. MSC IMO Res.	97(73)-	IEC 62288 Ed. 2.0 (2014-07).

				ITU- R M. 1177-	<del>4(0</del> 4/11). —	Corrigendum 1 (2008), IEC 61162 Series, IEC 62288 Ed. 2.0 (2014-07). IEC 62388 Ed.2.0 (2013-06).
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	(1994 HSC Code 13, IMO Res.	.97(73)-	IMO Res. A.694 IMO Res. MSC. (1994 HSC Code) 13, IMO Res. MSC. (2000 HSC Code) 13, IMO Res. MSC. IMO Res. MSC. IMO Res.	36(63)- — 97(73)- —	EN B + D 60945B + E (2002)B + F including IEC 60945 Corrigendum 1 (2008), EN 61162 Series, IEC 62288 Ed. 2.0 (2014-07). EN 62388 (2013). Or, IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61162 Series, IEC 61162 Series, IEC 62288 Ed.

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).	2.0   (2014-07). IEC   62388   Ed.2.0   (2013-06).   ISO   B + D   8729-B + E   (2010)B + F   EN   G   G0945   (2002)   including   IEC   60945   Corrigendum   1   (2008), Or, ISO   8729-1   (2010), IEC   60945   (2002)   including   IEC   60945   (2002)   including   IEC   60945   (2002)   including   IEC   60945   Corrigendum   1   (2008).
A.1/4.40	Heading control system for high speed craft	Reg. X/3, IMO Res. — MSC.36(63)-(1994 HSC — Code) 13, IMO Res. MSC.97(73)-(2000 HSC — Code) 13.	IMO — Res. A.694(17), IMO — Res. A.822(19), IMO Res. MSC 36(63)- (1994 HSC Code) 13, — IMO Res. MSC 97(73)- (2000 HSC Code) 13,	ISO B + D 16329B + E (2003)B + F EN G 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series, IEC 62288 Ed. 2.0 (2014-07). Or,

				s SC. 191(79). —	IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61162 series, IEC 62288 Ed. 2.0 (2014-07).
A.1/4.41	Transmitting heading device THD (GNSS method)	Reg. — V/18, Reg. — X/3, IMO Res. — MSC.36 (1994 HSC Code) 13, IMO Res. — MSC.97 (2000 HSC Code) 13. — — — — —	- IM (63)- Res MS (19 HS Co 13, - IM (73)- Res MS (20 HS Co 13, - IM Res MS	19, O S. — 594(17), O S. SC.36(63)- 194 C de) O — S. SC.97(73)- 1000— C de) O S. SC.116(73), O	ISO B + D 22090B + E (2014B + F EN G 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series, IEC 62288 Ed. 2.0 (2014-07). Or, ISO 22090-3 (2014), IEC 60945 (2002) including IEC 60945 Corrigendum

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. —	1 (2008), IEC 61162 series, IEC 62288 Ed. 2.0 (2014-07).  ISO B + D 17884B + E (2004)B + F EN G 60945 (2002) including IEC 60945 Corrigendum 1 (2008). Or, ISO 17884 (2004), IEC 60945 (2002) including IEC 60945 (2002) including IEC
					60945 Corrigendum 1 (2008).
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)-(2000 — HSC Code) 13.	IMO — Res. A.694(17) IMO Res. — MSC 36(63)- (1994 HSC Code) 13, IMO Res. MSC 94(72), IMO — Res. MSC 97(73)- (2000 HSC	ISO B + D 16273B + E (2003)B + F EN G 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 62288 Ed. 2.0 (2014-07).

		-	Code 13, IMO Res. MSC	. <del>19</del> 1(79).	Or, ISO 16273 (2003), IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 62288 Ed. 2.0 (2014-07).
A.1/4.44	Differential beacon receiver for DGPS and DGLONASS Equipment	- Reg V/18, - Reg X/3, - IMO Res. MSC.3 (1994 HSC Code) 13, - IMO Res. MSC.9 (2000 HSC Code) 13.	Res. MSC (1994 HSC Code 13, P7(73)- IMO Res. MSC (2000 HSC Code 13, IMO Res.	36(63)- - ) - .97(73)- ) .114(73).	EN B + D 60945B + E (2002)B + F including IEC 60945 Corrigendum 1 (2008), IEC 61108-4 (2004), EN 61162 series. Or, IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61108-4 (2004), IEC 61108-4 (2004), IEC 61108-4 (2004), IEC 611108-4 (2004), IEC 61162 series.
A.1/4.45	Chart facilities for	Item deleted, as	it is covered by	y A.1/4.38	

	shipborne radar				
A.1/4.46	Transmitting heading device THD (Gyroscopic 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.1191(79).	(2014), IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61162 series, IEC 62288 Ed. 2.0 (2014-07).
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),	EN B + D 60945B + E (2002)B + F including IEC 60945 Corrigendum 1 (2008),

					IMO Res. MSC		EN 61996 (2008 IEC 6228 Ed. 2.0 (2014 Or, IEC 6094: (2002 include IEC 6094: (2	6-2 8), 8 4-07). 5 9) ding 5 gendum 8), 2
A.1/4.48	Mechanical pilot hoist	Deliberation 1 July	tely le:	ft blank (a	as IMC	Res. MS	(2014 SC.308	6(88), in force
	F	used")		, 4		P		
A.1/4.49	Pilot ladder	_	Reg. V/23, Reg. X/3.		Reg. V/23, IMO Res.A IMO MSC. Circ.	 \.1045(27 /	Res.A ISO	B + D B 04E(27), B + F G
A.1/4.50	DGPS Equipment		Reg. V/18, Reg. X/3, IMO Res. MSC (1994 HSC		Reg. V/19, IMO Res. A.694 (17), IMO Res. MSC		(2002) includ IEC 6094:	5 gendum

		Code) 13, IMO Res. MSC.97(73)- (2000 HSC Code) 13.	(1994— HSC Code) 13, — IMO Res. MSC.97(73)- (2000 HSC Code)— 13, IMO Res. MSC.112(73), IMO Res. MSC.114(73), IMO Res. MSC.1191(79).	Or, IEC 60945 (2002) including
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)-	Reg. — V/19, IMO Res. A.694 (17), IMO Res. MSC.36(63)-(1994 — HSC Code) 13,	EN B + D 60945B + E (2002)B + F including IEC 60945 Corrigendum 1 (2008), EN 61108-2 (1998),

		(2000— HSC Code) 13.	IMO   — Res. MSC   97(73)-(2000 — HSC   Code)   13,	EN   61108-4 (2004), EN 61162 series, IEC 62288 Ed. 2.0 (2014-07). Or, IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61108-2 (1998), IEC 61108-4 (2004), IEC 61162 series, IEC 62288 Ed. 2.0 (2014-07).
A.1/4.52	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)-	EN B + D 60945B + E (2002)B + F including IEC 60945 Corrigendum 1 (2008), ISO 25861 (2007). Or, IEC 60945 (2002) including

A.1/4.53	Radar target	_	Reg		(2000 HSC Code).	IEC   60945 Corrigendum 1 (2008), ISO 25861 (2007).
	enhancer		(1994 HSC Code) 13, IMO Res.	97(73)-	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.164(78) ITU- R M 1176-1 (02/13)	60945 Corrigendum 1 (2008), Or, ISO 8729-2 (2009), IEC 60945 (2002) including IEC
A.1/4.54	Bearing Device		Reg V/18.		Reg. — V/19. — — — —	ISO B + D 25862B + E (2009)B + F EN G 60945 (2002) including IEC 60945 Corrigendum 1 (2008), Or, ISO 25862 (2009), IEC 60945

A.1/4.55	Search and rescue locating devices (SRLD): AIS SART equipment		Reg. — III/4, Reg. — IV/14. — — — —	Reg. — III/6, Reg. III/26, Reg. IV/7, IMO Res. MSC 246(83), IMO — Res. MSC 256(84), ITU-R — M. 1371-5(2014).	EN 61097-14 (2010). Or, IEC 60945
A.1/4.56	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	EN B + D 60945B + E (2002)B + F including IEC 60945 Corrigendum 1 (2008), EN 61108-3 (2010), EN 61162 Series, IEC 62288 Ed. 2.0 (2014-07).

				_	IEC 60945  Corrigendum 1 (2008), IEC 61108-3 (2010), IEC 61162 Series, IEC 62288 Ed. 2.0 (2014-07).
A.1/4.57	Bridge Navigational Watch Alarm System (BNWAS)	— R	Reg	Reg. — V/19, IMO Res. A.694(17), IMO Res. MSC.128(75) IMO Res. — MSC.191(79) — —	(2008), EN

A.1/4.58 Refer to note (b) of this Annex A.1	Sound reception system		(1994 HSC Code) IMO Res.	— 97(73)- —	Reg V/19, IMO Res. MSC.3 (1994 HSC - Code), IMO Res. MSC.8 IMO Res. MSC.9 (2000 - HSC Code), IMO Res MSC.1 MSC.1	6(63)-	60945 Corrigendum 1 (2008), IEC 61162 Series, IEC 62288 Ed. 2.0 (2014-07). IEC 62616 (2010) including IEC 62616 Corrigendum 1 (2012). EN B + D 60945B + E (2002)B + F including IEC 60945 Corrigendum 1 (2008), EN 61162 series, IEC 62288 Ed. 2.0 (2014-07). ISO 14859 (2012). Or, IEC 60945 Corrigendum 1 (2008), EN 61162 series, IEC 62288 Ed. 2.0 (2014-07). ISO 14859 (2012). Or, IEC 60945 Corrigendum 1 (2008),
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						_	IEC
							61162
							series,
							IEC
							62288
							Ed.
							2.0
							(2014-07).
							ISO
							14859
							(2012).
A.1/4.59	Integrated		Reg.	_	Reg.		EN $B + D$
Refer to note	navigation		V/18,		V/19,		60945B + E
(c) of this	system		Reg.		IMO		(2002)B + F
Annex A.1			X/3,		Res.		including
1 22224 1 2 1 2			IMO		A.694	1(17)	IEC
			Res.		IMO	.(17),	60945
				.36(63)-	Res.		Corrigendum
						.36(63)-	1
			(1994)	•			
			HSC		(1994	•	(2008),
			Code	)	HSC	_	EN
			13,		Code	)	61162
		_	IMO		13,		series,
			Res.	<del>-</del>	IMO	_	IEC
				.97(73)-	Res.		62288
			(2000)			.97(73)-	Ed.
			HSC		(2000)		2.0
			Code	)	HSC		(2014-07).
			13.		Code	)—	IEC
					13,		61924-2
					IMO		(2012).
					Res.		Or,
						. <del>19</del> 1(79),	
					IMO	( ))	60945
					Res.		(2002)
						252(83)	including
					IMO		IEC
					Res.		60945
						302(83).	-Corrigendum
					(Brid		1
					Alert	50	(2008),
						gamant	IEC
						gement,	
					(BAN	1)).	61162
							series,
						_	IEC
							62288
							Ed.
							2.0
							(2014-07).
						—	IEC
							61924-2
							(2012).
		ļ					· <u>'</u>

### 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:

- IEC 61162-1 ed4.0 (2010-11) Part 1: Single talker and multiple listeners
- IEC 61162-2 ed1.0 (1998-09) Part 2: Single talker and multiple listeners, high-speed transmission
- IEC 61162-3 ed1.2 Consol. with am1 ed. 1.0 (2010-11) and am2 ed. 1.0 (2014-07) 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
  - IEC 61162-3-am2 ed1.0 (2014-07) Amendment 2 Part 3: Serial data instrument network
- 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:

- EN 61162-1 (2011) Part 1: Single talker and multiple listeners
- EN 61162-2 (1998) Part 2: Single talker and multiple listeners, high-speed transmission
- EN 61162-3 (2008) Part 3: Serial data instrument network
  - EN 61162-3-am1 (2010) Amendment 1 Part 3: Serial data instrument network
  - IEC 61162-3-am2 ed1.0 (2014-07) Amendment 2 Part 3: Serial data instrument network
- 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 and ITU recommenda	Testing standards	Modules for conformity assessment
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1       2       3       4       5       6         A.1/5.1       VHF radio capable of transmitting and receiving DSC and radiotelephony       —       Reg. — Reg. Reg. Reg. Circ.862+ F       —       Reg. — Reg. Circ.862+ F         MSC/36(63)- Res. Res. Res. Res. Res. Res. Res. Res.				as annlicable			
capable of transmitting and receiving DSC and radiotelephony  The property of the content of the content of transmitting and receiving and receiving DSC and radiotelephony  The property of the content of the content of transmitting and receiving and receiving and receiving the content of transmitting and receiving and receiving the content of transmitting the content of transmi	2	3			5		6
Code) A.524(13), Corrigendum 14, — IMO 1 IMO Res. (2008), A.694(47), EN MSC,97(73)- IMO 61162 (2000 Res. series, HSC A.803(49), ETSI Code) — IMO EN 14. Res. 300 MSC,36(63)- 338-1 (1994 V1.3,1 HSC (2010-02), Code) — ETSI 14, EN 1MO 300 Res. 338-2 MSC,97(73)- V1.3,1 (2000 (2010-02), HSC — ETSI Code) EN 14, 301 HSC — ETSI COMSAR V1.2,1 Circ.862, (2004-06), HSC — IMO — ETSI MSC,1/ EN Circ.1460, 301 HSC — IMO — ETSI MSC,1/ EN Circ.1460, 301 HSC — ITU- R M.489-2 (10/95),	VHF radio capable of transmitting and receiving DSC and		Reg IV/14, Reg X/3, IMO - Res. MSC.36 (1994 - HSC Code) 14, - IMO Res. MSC.94 (2000 HSC Code) - Code	### A Propriet of the content of the	eg. — //7, //8, //8, //8, //8, //8, //8, //8,	MSC Circ. EN 6094 (2002) inclu IEC 6094 Corri 1 (2008) EN 6116: series ETSI EN 300 - 338-1 V1.3 (2010) ETSI EN 301 843-2 V1.2 (2004) ETSI EN 301 843-2 V1.4	B + D /B + E 862+ F 5 2) ding 5 gendum 3), 2 5, 1 1-02), 2 1 1-06),

		_	M.54 1-9 (05/04), ITU- R M.689-3 (03/12).	
A.1/5.2	VHF DSC watch-keeping 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.694(17), IMO Res. A.803(19), IMO Res. MSC.36(63)-(1994 HSC Code) 14, IMO Res. — MSC.97(73)-(2000 HSC Code) 14, IMO — COMSAR Circ.32, ITU-R M.489-2 (10/95), ITU-R M.493-13 (10/09), ITU-	EN B + D 60945B + E (2002)B + F 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 301 033 V1.4.1 (2013-09), ETSI EN 301 843-2 V1.2.1 (2004-06),
1.1/5.0			R M.541-9 (05/04).	
A.1/5.3	NAVTEX receiver	 Reg. — IV/14, Reg. — X/3, IMO — Res. MSC.36(63)-	Reg. — IV/7, Reg. X/3, IMO Res. A.694(17),	EN   B + D 60945B + E (2002)B + F including IEC 60945 Corrigendum

			(1994—	IMO	1
			HSC	Res.	(2008),
			Code)	MSC <del>36</del> (63)-	ETSI
			14,	(1994	EN
			IMO	HSC	300
			Res.	Code)	065-1
			MSC 97(73)-	14,	V1.2.1
			(2000—	IMO	(2009-01),
			HSC	Res. —	ETSI
			Code)	MSC 97(73)-	EN
			14.	(2000	301
				HSC	843-4
				Code)	V1.2.1
				14,	(2004-06),
				IMO	Or,
				Res. —	IEC
				MSC 148(77),	60945
				IMO	(2002)
				COMSAR	including
				Circ.32,	IEC
			_	ITU-	60945
				R	Corrigendum
				M.540-2	(2009)
				(06/90), ITU- —	(2008),
			_	R R	IEC   61097-6
				M.625-4	(2012-01).
				(03/12)	(2012-01).
				` /	
A.1/5.4	EGC receiver		Reg. —	Reg. —	EN B + D
			IV/14,	IV/7,	60945B + E
		_	Reg. —	Reg.	(2002)B + F
			X/3,	X/3,	including
		_	IMO —	IMO Pos	IEC   60945
			Res. MSC 36(63)-	Res. A.570(14),	Corrigendum
			(1994 -	IMO (14),	1
			HSC		I
				Rec	(2008)
				Res.	(2008), ETSI
			Code)	A.694 <del>(17</del> ),	ETSI
			Code) 14, —	A.694 <del>(1</del> 7), IMO	ETSI ETS
		_	Code) 14, IMO	A.694 <del>(1</del> 7), IMO Res.	ETSI ETS 300
		_	Code) 14, — IMO Res.	A.694(17), IMO Res. MSC 36(63)-	ETSI ETS 300 460
			Code) 14, — IMO Res. MSC 97(73)-	A.694(17), IMO Res. MSC 36(63)- (1994	ETSI ETS 300 460 Ed.1
		_	Code) 14, — IMO Res. MSC 97(73)- (2000	A.694(17), IMO Res. MSC 36(63)- (1994 HSC	ETSI ETS 300 460 Ed.1 (1996-05),
		_	Code) 14, — IMO Res. MSC 97(73)-	A.694(17), IMO Res. MSC 36(63)- (1994 HSC Code)—	ETSI ETS 300 460 Ed.1
		_	Code) 14, — IMO Res. MSC 97(73)- (2000 HSC	A.694(17), IMO Res. MSC 36(63)- (1994 HSC	ETSI ETS 300 460 Ed.1 (1996-05), ETSI
		_	Code) 14, — IMO Res. MSC 97(73)- (2000 HSC Code)	A.694(17), IMO Res. MSC 36(63)- (1994 HSC Code)— 14, IMO Res.	ETSI ETS 300 460 Ed.1 (1996-05), ETSI ETS
		_	Code) 14, — IMO Res. MSC 97(73)- (2000 HSC Code)	A.694(17), IMO Res. MSC 36(63)- (1994 HSC Code)— 14, IMO Res. MSC 97(73)-	ETSI ETS 300 460 Ed.1 (1996-05), ETSI ETS 300 460/ A1
		_	Code) 14, — IMO Res. MSC 97(73)- (2000 HSC Code)	A.694(17), IMO Res. MSC 36(63)- (1994 HSC Code)— 14, IMO Res. MSC 97(73)- (2000	ETSI ETS 300 460 Ed.1 (1996-05), ETSI ETS 300 460/ A1 (1997-11),
			Code) 14, — IMO Res. MSC 97(73)- (2000 HSC Code)	A.694(17), IMO Res. MSC.36(63)- (1994 HSC Code)— 14, IMO Res. MSC.97(73)- (2000 HSC —	ETSI ETS 300 460 Ed.1 (1996-05), ETSI ETS 300 460/ A1 (1997-11), ETSI
		_	Code) 14, — IMO Res. MSC 97(73)- (2000 HSC Code)	A.694(17), IMO Res. MSC.36(63)- (1994 HSC Code)— 14, IMO Res. MSC.97(73)- (2000 HSC — Code)	ETSI ETS 300 460 Ed.1 (1996-05), ETSI ETS 300 460/ A1 (1997-11), ETSI EN
			Code) 14, — IMO Res. MSC 97(73)- (2000 HSC Code)	A.694(17), IMO Res. MSC.36(63)- (1994 HSC Code)— 14, IMO Res. MSC.97(73)- (2000 HSC —	ETSI ETS 300 460 Ed.1 (1996-05), ETSI ETS 300 460/ A1 (1997-11), ETSI

				IMO		829
				Res.	206(97)	V1.1.1
				MSC IMO	306(87),	(1998-03), ETSI
				COM		EN
				Circ.:	32.	301
						843-1
						V1.3.1 (2012-08),
						Or, Or,
						IEC
						60945
						(2002) including
						IEC
						60945
						Corrigendum 1
						(2008),
						IEC   61097-4
						(2012-05).
A.1/5.5	HF marine	Dog		Reg.		EN B+D
A.1/3.3	safety	Reg. IV/14		IV/7,		60945B + E
	information	 Reg.	<u> </u>	Reg.		(2002)B + F
	(MSI)	X/3,		X/3,		including
	equipment	 IMO		IMO		IEC COOAF
	(HF NBDP receiver)	Res.	.36(63)-	Res. A 694	<del>1</del> (17),	60945 Corrigendum
		(1994	` ′	IMO	, ,	1
		HSC		Res.		(2008),
		Code	)		<del>(17</del> ),	EN C1167
		 14, IMO	_	IMO Res.		61162 Series,
		Res.			) <del>(17</del> ),	ETSI
			. <del>97</del> (73)-	IMO		ETS
		(2000)	)	Res.	((10)	300
		HSC Code	)—	A.800 IMO	0(19),	067 Ed.1
		14	,	Res.		(1990-11),
					. <del>36</del> (63)-	ÈTSI
				(1994)	-	ETS
				HSC Code		300 067/
				14,		A1
			_	IMO		Ed.1
				Res.	07(72)	(1993-10).
				(2000)	97(73)-	Or, IEC
				HSC		60945
				Code	)	(2002)
				14,		including

				—	IMO	IEC
					MSC.1/ Circ.1460,	60945 Corrigendum
				_	IMO COMSAR	1 (2008),
					Circ.3 <del>2,</del> ITU-	IEC 61162
					R M.492 <del>-6</del>	Series, ETSI
					(10/95),	ETS
				_	ITU-R	300 067
					M.540-2 (06/90),	Ed.1 (1990-11),
					ITU- R	ETSI ETS
					M.625-4 (03/12),	300 067/
					ITU- R	A1 Ed.1
					M.688 (06/90).	(1993-10).
A.1/5.6	406 MHz EPIRB	_	Reg. IV/14	_	Reg. — IV/7,	IMO B + D MSC/B + E
	(COSPAS-	_	Reg.	<u></u>	Reg.	Circ.8 <b>6</b> 2+ F
	SARSAT)		X/3, IMO	_	X/3, IMO	EN   60945
				.36(63)-	Res. A.662(16),	(2002) including
			(1994 HSC		IMO Res.	IEC   60945
			Code 14,	) 	A.694(17), IMO	Corrigendum 1
			IMO Res.		Res. A.696 <del>(17</del> ),	(2008), ETSI
			MSC (2000	. <del>97</del> (73)-	IMO Res.	EN 300
			HSC Code		A.810(19), IMO	066 V
			14.		Res. MSC 36(63)-	1.3.1 (2001-01).
					(1994 HSC —	Or, IMO
					Code)	MSC
				_	14, IMO —	Circ.862, IEC
					Res. MSC 97(73)-	60945 (2002)
					(2000 HSC	including IEC
					Code) 14,	60945 Corrigendum

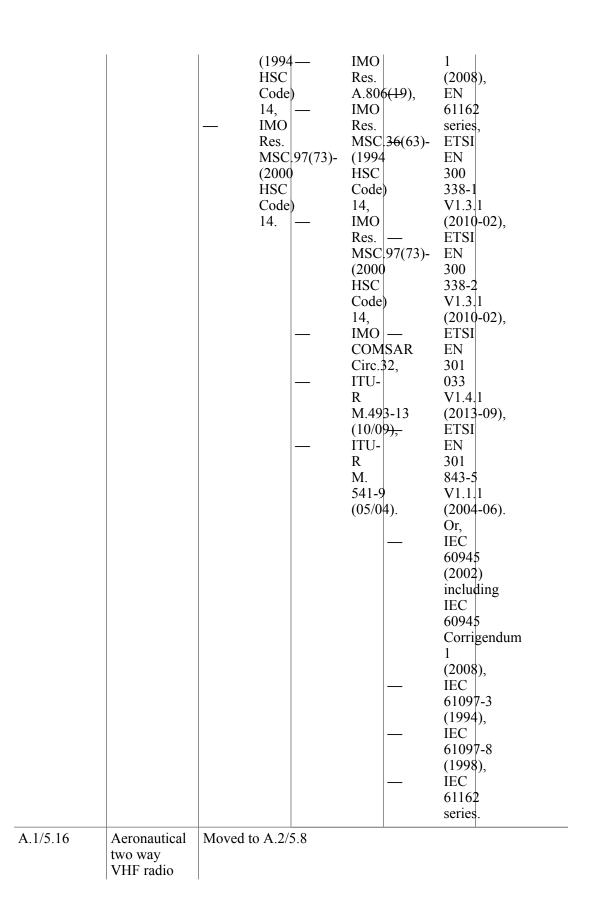
			IMO 1 MSC/ (2008), Circ.862, IEC IMO 61097-2 COMSAR (2008), Circ.32/ote: IMO ITU- MSC/ R Circ. 862 is M.633applicable (12/10)nly to the ITU- optional R remote M.690activation (03/12)evice, not to the EPIRB itself.
A.1/5.7	L- band EPIRB (INMARSAT)	Deliberately left blank	
A.1/5.8	MF DSC Receiver	Deliberately 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. — IMO B + D IV/9, MSC/B + E Reg. Circ.862+ F IV/10,— EN Reg. 60945 X/3, (2002) IMO including Res. IEC A.694(17), 60945 IMO Corrigendum Res. 1 A.804(19), (2008), IMO — EN Res. 61162 MSC.36(63)- series, (1994 — ETSI HSC EN Code) 300 14, 338-1 IMO V1.3.1 Res. (2010-02), MSC.97(73)- ETSI (2000 EN HSC 300 Code) 338-2 14, V1.3.1 (2010-02),

				IMO — MSC 1/ Circ. 1460, IMO COMSAR Circ. 32, ITU-— R M.493-13 (10/09), ITU- R M.541-9 (05/04).	ETSI EN 300 373-1 V1.4.1 (2013-09), ETSI EN 301 843-5 V1.1.1 (2004-06).
A.1/5.11	MF DSC watch-keeping receiver	(1994 HSC Code 14, IMO Res.	3 <del>6</del> (63)- 1 )— .97(73)-	Reg. IV/9, Reg. IV/10, 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), ITU-R M.541-9 (05/04),	EN B + D 60945B + E (2002)B + F 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 301 033 V1.4.1 (2013-09), ETSI EN 301 843-5 V1.1.1 (2004-06).

			_	ITU- R M.1173-1 (03/12).	
A.1/5.12	Inmarsat-B SES Note: The service will be discontinued on and after 31 December 2016.	Reg. – IV/14, Reg. – X/3, IMO – Res. MSC.3 (1994 – HSC Code) 14, – IMO Res. MSC.9 (2000 HSC Code) 14.	<b>-</b> ` ´	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, IMO Res. MSC.97(73)-(2000 HSC Code) 14, IMO MSC/ Circ.862, IMO COMSAR Circ.32.	IMO B + D MSC/B + E Circ B + F 862, EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008). Or, IMO MSC/ Circ 862, IEC 60945 (2002) including IEC 60945 (2002) including IEC 60945 (2008).
A.1/5.13	Inmarsat-C SES	 Reg. – IV/14, Reg. – X/3, IMO – Res. MSC.3: (1994 – HSC Code) 14, IMO Res. MSC.9 (2000		Reg. — IV/10, Reg. X/3, — IMO Res. A.570(14), IMO Res. A.664 (16), (applicable only — if the	IMO B + D MSC/B + E Circ.862+ F EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series,

			HSC		Inmarsat	ETSI
			Code	)	C	ETS
			14.		SES	300
					comprises	460
					EGC functions),	Ed.1 (1996-05),
					IMO —	ETSI
					Res.	ETS
					A.694(17),	300
					IMO	460/
					Res.	A1 (1007 11)
					A.807(19), IMO —	(1997-11), ETSI
					Res.	EN
					MSC 36(63)-	300
					(1994	829
					HSC	V1.1.1
					Code)	(1998-03),
					14, — IMO	ETSI EN
					Res.	301
					MSC 97(73)-	843-1
					(2000	V1.3.1
					HSC	(2012-08),
					Code) 14, —	Or, IEC
					IMO	60945
					Res.	(2002)
					MSC 306(87),	
					IMO	IEC
					MSC/	60945
					Circ.862, IMO	Corrigendum
					COMSAR	(2008),
					Circ.3 <del>2.</del>	IEC
						61097-4
						(2012),
					_	IEC
						61162 series.
A 1/5 1 4	MF/HF radio		Daa		Dag	
A.1/5.14	capable of	_	Reg. IV/14	_	Reg. — IV/10,	IMO B + D MSC/B + E
	transmitting	_	Reg.	, 	Reg.	Circ. <b>862</b> + F
	and receiving		X/3,		X/3, —	EN EN
	DSC,	_	IMO		IMO	60945
	NBDP and		Res.	26(62)	Res.	(2002)
	radiotelephony <i>Note:</i> In line			36(63)-	A.694(17),	including IEC
	with IMO		(1994 HSC	_	IMO Res.	60945
	and ITU		Code	)	A.806(19),	Corrigendum
	decisions, the		14,	_	IMO	1
	requirements				Res.	(2008),

	for Two	_	IMO		MSC 36(63)-	EN
	Tone Alarm generator and		Res.	.97(73)-	(1994 HSC	61162 series,
	transmission		(2000)	` ′	Code)—	ETSI
	on A3H are		HSC		14,	ETS
	no longer		Code	)—	IMO	300
	applicable		14.		Res.	067
	in testing				MSC 97(73)-	Ed.1
	standards.				(2000	(1990-11),
					HSC —	ETSI
					Code)	ETS
					14, IMO	300 067/
				_	MSC/	A1
					Circ. 862,	Ed.1
					IMO	(1993-10),
					MSC 1/-	ETSI
					Circ.1460,	EN
				<del></del>	IMO	300
					COMSAR	338-1
					Circ.32,	V1.3.1
				<del></del>	ITU-	(2010-02),
					R —	ETSI
					M.476-5 (10/95),	EN 300
					(10/95), ITU-	338-2
					R	V1.3.1
					M.492-6	(2010-02),
					(10/95),	ETSI
				_	ÌTU-	EN
					R	300
					M.493-13	373-1
					(10/09),	V1.4.1
				<del></del>	ITU-	(2013-09),
					R —	ETSI
					M.541-9	EN 301
					(05/04), ITU-	843-5
					R	V1.1.1
					M.625-4	(2004-06).
					(03/12),	
				<b> </b> —	ITU-	
					R	
					M.1173-1	
					(03/12).	
A.1/5.15	MF/HF DSC	_	Reg.		Reg. —	$EN \mid B + D$
	scanning		IV/14	.,	IV/10,	60945B + E
	watch	_	Reg.	<del></del>	Reg.	(2002)B + F
	keeping		X/3,		X/3,	including
	receiver	_	IMO Res.	_	IMO Res.	IEC   60945
				.36(63)-	A.694(17),	Corrigendum
		l	14100	120(02)-	11.07 <sub>T</sub> (11),	Compondum



	telephone apparatus				
A.1/5.17	Portable 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.   —	EN B + D 60945B + E (2002)B + F including IEC 60945 Corrigendum 1 (2008), ETSI EN 300 225 V1.4.1 (2004-12), ETSI EN 301 843-2 V1.2.1 (2004-06). Or, 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	Reg. — III/6, IMO Res. A.694(17), IMO Res. A.809(19), IMO Res. — MSC 36(63)-(1994 HSC Code) 8, 14,	EN B + D 60945B + E (2002)B + F including IEC 60945 Corrigendum 1 (2008), ETSI EN 301 466 V1.1.1 (2000-10), Or,

			Code 14.	_	IMO   — Res.   MSC   97(73)- (2000   HSC   Code) 8, 14, ITU- R   — M.489-2 (10/95).	IEC   60945 (2002) including IEC   60945 Corrigendum 1 (2008), IEC   61097-12 (1996).
A1/ 5.19	Inmarsat-F77	_	(1994 HSC Code 14, IMO Res.	.3 <del>6</del> (63)-  ) — .97(73)-	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.	MSC/ Circ.862, IEC 60945 (2002) including

## 6. **Equipment required under COLREG 72**

No.	Item	Regulation	Regulations	Testing	Modules
	designation	COLREG 72	of	standards	for

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		where "type approval" is required	COLREG and the relevant resolutions and circulars of the IMO, as applicable			conformity assessment
1	2	3	4	5		6
A.1/6.1	Navigation lights	— COL	x I/14. I/14, — IMO Res. A.69 <sup>2</sup> — IMO Res.	x 4(17),	(2005) include AC (2006) EN (2002) include Corrigion (2008) Or, EN (2005) include AC (2006) IEC (2002) include IEC (6094) (2002) include IEC (6094)	b), 5 c) ding 5 gendum 6), ding 6), ding 6) gendum 6 gendum

## 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	Regulation	Regulations	Testing	Modules
	designation	SOLAS 74,	of SOLAS	standards	for
		as	74, as		

**Status:** EU Directives are being published on this site to aid cross referencing from UK legislation. After IP completion day (31 December 2020 11pm) no further amendments will be applied to this version.

		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.1/8.1	Water level detectors	— Reg. II-1/2 Reg. II-1/2 Reg. II-1/2 IReg. XII/1	5, XII/1 — IMO 2. Res. A — IMO Res.	5, 6009 (200) 2, inclu IEC 1.1021(26)6009 Corri 1 .188(79), (201) — IEC .1/ 6052 Ed.2. (200) — IMO Res. MSC — IMO MSC	B + D 25604E B + F ding 2-504 gendum ), 9 2 1),

#### ANNEX A.2

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

## 1. Life-saving appliances

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

No.	Item designation	Regulation SOLAS 74, 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
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1	2	3	4	5	6		
A.2/1.1	Radar reflector for liferafts	<ul> <li>Reg. III/4,</li> <li>Reg. III/34</li> <li>Reg. X/3.</li> </ul>	— IMO Res. MSC (LSA Code				
A.2/1.2	Immersion suit materials	Deliberately left blank					
A.2/1.3	Float-free launching appliances for survival craft	Deliberately left blank					
A.2/1.4	Embarkation ladders	Moved to A.1/1.29					
A.2/1.5	Public address & general emergency alarm system (when used as fire alarm device item A.1/3.53 shall apply)	— Reg. III/6.	<ul> <li>IMO</li> <li>Res.</li> <li>MSC</li> <li>(1994)</li> <li>HSC</li> <li>Code</li> <li>IMO</li> <li>Res.</li> <li>MSC</li> <li>(LSA)</li> <li>Code</li> <li>IMO</li> <li>Res.</li> </ul>	21(26), .36(63)- .48(66)- .97(73)- .97(73)-			

## 2. **Marine pollution prevention**

No.	Item	Regulation	Regulations	Testing	Modules
	designation	MARPOL 73	/ <b>78£</b>	standards	for
		as	MARPOL		conformity
		amended,	73/78, as		assessment
		where	amended,		
		"type	and the		
		approval"	relevant		
		is required	resolutions		

			and circulars of the IMO, applicable		
1	2	3	4	5	6
A.2/2.1	NO <sub>x</sub> analyser of Chemilunescer detector (CLD) or heated cheminulescen detector type (HCLD) type for use in on board direct measurement		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 <sub>x</sub> emissions	— Anne VI, Reg.	VI,	ex	
A.2/2.4	Equipment using other technological methods to limit SO <sub>x</sub> emissions	(Rev MAF Anno VI, Reg. 4), — IMO Res. MEP	— IMO C.176(58) Res. ised (Rev POL MAF Anne VI, Reg. 4).	C.176(58) — ised POL ex	
A.2/2.5	On board NO <sub>x</sub> analysers using a measurement method other than the Direct Measurement and	Deliberately le into A.1/2.8	oft blank as this	sort of equipmen	nt is included

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Monitoring
Method of
the NO <sub>x</sub>
Technical
Code 2008

# 3. Fire protection equipment

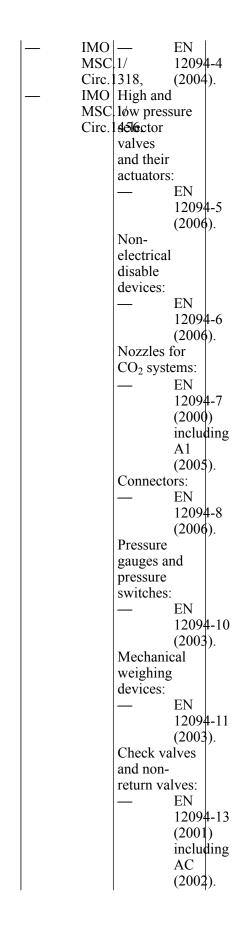
No.	Item designation	Regulation SOLAS 74, as amended, where "type approval" is required	Regulations of SOLAS 74, as amended, and the relevant resolutions and circulars of the IMO, as applicable	Testing standards	Modules for conformity assessment
1	2	3	4	5	6
A.2/3.1	Non- portable and transportable extinguishers	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	Moved to A.1/	3.51		

	fire alarm systems components for control stations, service spaces, accommodatio spaces, machinery spaces and unattended machinery spaces	n			
A.2/3.6	Smoke detectors	Moved to A.1/3	3.51		
A.2/3.7	Heat detectors	Moved to A.1/3	3.51		
A.2/3.8	Electric safety lamp	- Reg. II-2/10 - Reg. X/3, - IMO Res. MSC. (FSS Code) 3.	0, — 98(73)- ) —	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 60079 series.
A.2/3.9	Protective clothing resistant to chemical attack	— Reg. II-2/1	<u>9.                                    </u>	Reg. — II-2/19, IMO Res. MSC.36(63)- (1994 HSC — Code) 7, IMO — Res.	EN 943-1 (2002) including AC (2005), EN 943-2 (2002), EN ISO

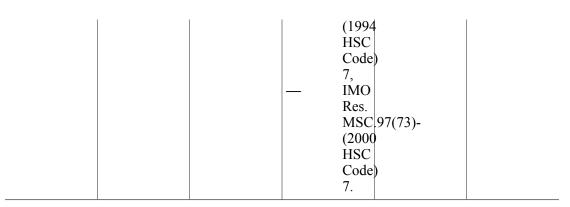
		MSC 97(73)- 6529 (2000 (2001), HSC — EN Code) ISO 7. 6530 (2005), — EN 14605 (2005) including A1(2009), — IMO MSC/ Circ. 1120.
A.2/3.10	Low-location lighting systems	Moved to A.1/3.40
A.2/3.11	Nozzles for fixed pressure water spraying fire extinguishing systems for machinery spaces	Moved to A.1/3.10
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 components for use in category "A" machinery spaces.	Moved to A.1/3.48
A.2/3.20	Upholstered furniture	Moved to A.1/3.20
A.2/3.21	Paint lockers and flammable liquid lockers fire extinguishing systems components	— Reg. II-2/10, III-2/10, IMO MSC.1/Circ.1239.
A.2/3.22	Galley Exhaust Duct Fixed Fire Extinguishing Systems components	Moved to A.1/3.68
A.2/3.23	Helicopter Deck Fire Extinguishing Systems components	Moved to A.1/3.67
A.2/3.24	Portable Foam Applicator Units	Reg Reg.   II-2/10,   II-2/10,   Reg Reg.   II-2/20,   II-2/20,   Reg IMO   X/3.   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	<u> </u>	Reg. II-2/4, IMO MSC 1/ Circ. 1276.
A.2/3.27	Fixed Gas Fire Extinguishing Systems (CO <sub>2</sub> ) components.	— Reg. II-2/1 — Reg. X/3.		Reg. Electrical II-2/1 (a) utomatic Reg. control and II-2/2 (a) elay devices: IMO — EN Res. 12094-1 MSC 36(63)- (2003). (1994 Non-HSC electrical Code) automatic 7, control and IMO delay devices: Res. — EN MSC 97(73)- 12094-2 (2000 (2003). HSC Manual Code) triggering and 7, stop devices: IMO — EN Res. 12094-3 MSC 98(73)- (2003). (FSS Container Code) valve 5, assemblies IMO and their MSC a\(\frac{1}{2}\) take tuators: Circ. 1313,



			Odorizing devices for CO <sub>2</sub> 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-2/19.	Reg. II-2/10, Reg. II-2/19.
A.2/3.32	Dry chemical powder extinguishing systems	Moved to A.1/3.62	
A.2/3.33 New item	Fire hoses with diameter > 52 mm	Reg II-2/10, Reg X/3.	Reg. II-2/10, IMO Res. MSC 36(63)-



### 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 4: Navigational equipment shall comply with relevant parts of IMO's Assembly Resolution A.1021(26) "Code on alerts and indicators, 2009", and MSC Resolution MSC.302(87) "Adoption of performance standards for bridge alert management", as applicable.

### Column 5:

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

- IEC 61162-1 ed4.0 (2010-11) Part 1: Single talker and multiple listeners
- IEC 61162-2 ed1.0 (1998-09) Part 2: Single talker and multiple listeners, high-speed transmission
- IEC 61162-3 ed1.2 Consol. with am1 ed. 1.0 (2010-11) and am2 ed. 1.0 (2014-07) 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
  - IEC 61162-3-am2 ed1.0 (2014-07) Amendment 2 Part 3: Serial data instrument network
- 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:

- EN 61162-1 (2011) Part 1: Single talker and multiple listeners
- EN 61162-2 (1998) Part 2: Single talker and multiple listeners, high-speed transmission
- EN 61162-3 (2008) Part 3: Serial data instrument network
  - EN 61162-3-am1 (2010) Amendment 1 Part 3: Serial data instrument network
  - IEC 61162-3-am2 ed1.0 (2014-07) Amendment 2 Part 3: Serial data instrument network
- 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 and ITU recommendat as applicable		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	Moved to A.1/	4.30				

A.2/4.9  A.2/4.10	Information System (ECDIS).  Electronic Chart Display and Information System (ECDIS) backup  Raster Chart Display System	Moved to A.			
A.2/4.11	(RCDS)  Combined GPS/ GLONASS equipment	(19 HS Coo — IM Res MS (20 HS	S, — S, O S. — SC, 36(63)- 94 C de), O S. — SC, 97(73)- 00	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). — — —	Ed. 2.0

		— IEC 61108-2 (1998), — IEC 61162 series, — IEC 62288 Ed. 2.0 (2014-07).				
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	Moved to A.1/4.59				
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	Moved to A.1/4.58				
A.2/4.19	Magnetic compass for high speed craft	<ul> <li>Reg. — IMO — ISO X/3, Res. 1069</li> <li>IMO A.382(X), (1973), Res. — IMO — ISO MSC 36(63)- Res. 25862(2009), (1994 A.694(17), EN HSC — IMO 60945 Code), Res. (2002)</li> <li>IMO MSC 36(63)- including Res. (1994 IEC MSC 97(73)- HSC 60945 (2000 Code), Corrigendum HSC — IMO 1 Code). Res. (2008). MSC 97(73)- Or, (2000</li> </ul>				

				HSC — Code). —	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	Res. MSC (1994 HSC Code IMO Res.		IMO Res. A.694(17), IMO Res. MSC.36(63)-(1994 HSC Code), IMO Res. MSC.97(73)-(2000— HSC Code), IMO Res. MSC.191(79).—	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series, IEC 62288 Ed. 2.0 (2014-07). Or, IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61162 series, IEC 62288 Ed. 2.0 (2014-07).
A.2/4.21	Chart facilities for	Moved to A.1/	4.45		

	shipborne radar				
A.2/4.22	Transmitting heading device THD (Gyroscopic method)	Moved t	o A.1/4.46		
A.2/4.23	Transmitting heading device THD (Magnetic method)	Moved t	o A.1/4.2		
A.2/4.24	Thrust indicator		Reg. V/18, Reg. X/3, IMO Res. — MSC 36(63)-(1994 HSC Code), IMO Res. — MSC 97(73)-(2000 HSC Code). —	Reg. V/19, IMO Res. A.694(17), IMO Res. MSC 36(63)-(1994 HSC — Code), IMO Res. — MSC 97(73)-(2000 HSC Code), IMO Res. — MSC 191(79).	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series, IEC 62288 Ed. 2.0 (2014-07). Or, IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61162 series, IEC 61162 series, IEC 62288 Ed. 2.0 (2014-07).
A.2/4.25	Lateral thrust, pitch and mode indicators	_	Reg. — V/18, Reg. X/3,	Reg. — V/19,	EN 60945 (2002) including

			(1994 HSC Code IMO Res.	.36(63)-  ), .97(73)-	IMO Res. MSC (1994 HSC Code IMO Res. MSC (2000 HSC Code IMO Res.	36(63)- ,- ,97(73)- ),-	IEC   60945   Corrigendum   1   (2008), EN   61162   series, IEC   62288   Ed.   2.0   (2014-07). Or, IEC   60945   (2002)   including IEC   60945   Corrigendum   1   (2008), IEC   61162   series, IEC   62288   Ed.   2.0   (2014-07).
A.2/4.26	Rate-of-turn indicator	Moved to	o A.1/4	4.9			
A.2/4.27	Rudder angle indicator	Moved to	o A.1/4	4.20			
A.2/4.28	Propeller revolution indicator	Moved to	o A.1/4	4.21			
A.2/4.29	Pitch indicator	Moved to	o A.1/4	4.22			
A.2/4.30	Bridge equipment system	Delibera	tely le	ft blank			
A.2/4.31	Bearing Device	Moved to	o A.1/4	4.54			
A.2/4.32	Bridge Navigational Watch Alarm	Moved to	o A.1/4	4.57			

	System (BNWAS)				
A.2/4.33	Track control system (working at ship's speed from 30 knots and above)	Deliberately le	ft blank		
A.2/4.34	Equipment with Long Range Identification and Tracking (LRIT) capability	Deliberately le	ft blank		
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		
A.2/4.37 (new item)	Electronic Inclinometer	— Reg. V/18	 -7.  	IMO Res. A.694(17), IMO Res. MSC.191(79), IMO Res. MSC.363(92), IMO — MSC.1/ Circ.982, IMO MSC.1/ Circ.1228,	Corrigendum 1 (2008), EN 61162 Series. Or, IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61162 Series.
A.2/4.38 Ex A.1/4.11	Loran-C equipment	<ul> <li>Reg. V/18</li> <li>Reg. X/3,</li> <li>IMO Res.</li> </ul>	_	Reg. — V/19, IMO Res. A.694(17),	EN 60945 (2002) including IEC 60945

		MSC 36(63)-(1994 HSC   Code)— 13, IMO   Res.   MSC 97(73)-(2000   HSC   Code)— 13.   —	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). — —	Corrigendum 1 (2008), EN 61162 series, IEC 62288 Ed. 2.0 (2014-07). Or, IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008), IEC 61162 series, IEC 62288 Ed. 2.0 (2014-07).
A.2/4.39 Ex 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	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), EN 61162 series, IEC 62288 Ed. 2.0 (2014-07). Or, IEC 60945 (2002) including IEC

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			_	Code) 13, IMO Res. MSC. 191(79)	60945 Corrigendum 1 (2008), IEC 61162 series, IEC 62288 Ed. 2.0 (2014-07).
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### 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:

- IEC 61162-1 ed4.0 (2010-11) Part 1: Single talker and multiple listeners
- IEC 61162-2 ed1.0 (1998-09) Part 2: Single talker and multiple listeners, high-speed transmission
- IEC 61162-3 ed1.2 Consol. with am1 ed. 1.0 (2010-11) and am2 ed. 1.0 (2014-07) 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
  - IEC 61162-3-am2 ed1.0 (2014-07) Amendment 2 Part 3: Serial data instrument network
- 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:

- EN 61162-1 (2011) Part 1: Single talker and multiple listeners
- EN 61162-2 (1998) Part 2: Single talker and multiple listeners, high-speed transmission
- EN 61162-3 (2008) Part 3: Serial data instrument network
  - EN 61162-3-am1 (2010) Amendment 1 Part 3: Serial data instrument network
  - IEC 61162-3-am2 ed1.0 (2014-07) Amendment 2 Part 3: Serial data instrument network
- EN 61162-450 (2011) Part 450: Multiple talkers and multiple listeners Ethernet interconnection

	No.	Item designation	,	1 '	Testing standards	Modules for conformity assessment
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		"type approval" is required		ions rs is ible U nendat	ions,		
1	2	3	4		5		6
A.2/5.1	VHF EPIRB	IN	eg. — V/14,— eg. L/3, MO — es. MSC 36(63)- 1994 — ISC Jode), MO — es. MSC 97(73)- 2000 ISC Jode). — —	(1994 HSC Code) IMO Res.	2(16), 4(17), 5(19), — 36(63)- 36(63)- 97(73)- 9, 9-2 5),	1 (2008) Or, IEC 6094: (2002) includ IEC 6094:	ding ding sendum s). ding sendum sylvariants
A.2/5.2	Radio reserve source of energy	— R X — IN R M	eg. — V/14, eg. — (/3, MO es. — 1SC.36(63)-1994	Reg. IV/13 IMO Res. A.694 IMO Res. A.702	l(17),	EN 6094: (2002 including IEC 6094: Corri 1 (2008	ding 5 gendum

		_	HSC — Code), IMO Res. MSC 97(73)-(2000 HSC — Code).	IMO Res. — MSC 36(63)- (1994 HSC Code), IMO Res. MSC 97(73)- (2000 HSC Code), IMO COMSAR Circ. 16, IMO COMSAR Circ. 32.	Or, IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008).
A.2/5.3	Inmarsat-F SES	Moved t	o A.1/5.19.		
A.2/5.4	Distress panel		Reg. — IV/14, Reg. — X/3, IMO Res. — MSC 36(63)- (1994 HSC Code), IMO Res. — MSC 97(73)- (2000 HSC Code). — —	Reg. — IV/6, IMO Res. A.694(17), IMO Res. MSC.36(63)-(1994 HSC Code),— IMO Res. MSC.97(73)-(2000 HSC Code), IMO MSC/ Circ. 862, IMO COMSAR Circ.32.	EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008). Or, IEC 60945 (2002) including IEC 60945 Corrigendum 1 (2008).
A.2/5.5	Distress alarm or alert panel	_ _ _	Reg. — IV/14, Reg. — X/3, IMO — Res. MSC,36(63)- (1994	Reg. — IV/6, IMO Res.A.694(17) IMO Res. MSC.36(63)- (1994	EN 60945 (2002) including IEC 60945 Corrigendum

		_	HSC   Code), IMO — Res. MSC 97(7: (2000 HSC   Code). —	HSC   Code), IMO   Res (2000   HSC   Code), IMO   MSC/ Circ.86   IMO   COMS   Circ.32	Or, IEC (200 incl.) (200 Cor.) (200 Cor.) (200 Cor.) (200 Cor.) (200 SAR	45 02) uding 45 rigendum
A.2/5.6	L- band EPIRB (INMARSAT)	Deliberate	ely left blaı	ık		
A.2/5.7	Ship security alert system			Reg XI-2/6 IMO Res. A.694( IMO Res. MSC.1 IMO MSC/- Circ.10	(200 inclination (200 i	102) uding 45 rigendum 108), 62 es. 45 102) uding 45 rigendum 108),
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(6: (1994 HSC	Reg IV/7, IMO Res. A.694( IMO B)- Res. MSC.3 (1994	(17), IEC 609	02) uding 45 rigendum

		Code) 14, IMO Res. — MSC 97(73)- (2000 HSC Code) 14. — —	HSC — Code) 14, IMO Res. MSC 97(73)- (2000 HSC — Code) 14, IMO Res. MSC 80(70), IMO COMSAR Circ.32, ICAO— Convention, Annex 10, Radio - Regulations.	ETSI EN 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).
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## 6. **Equipment required under COLREG 72**

No.	Item designation	Regulation COLREG 72 where "type approval" is required	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	6.1.		
A.2/6.2	Sound signal appliances	— COLI 72 Anne III/3.	Anne x III/3, — IMO Res.	6094 ex (200 inclu IEC 6094 4(17). Corr 1 (200 — Whi	2) Iding 45 igendum

			72
			Annex
			III/1
			(Performance),
			Bells
			or
			Gongs —
			COLREG
			72
			Annex
			III/2
			(Performance).
			Or,
		<del></del>	IEC
			60945
			(2002)
			including
			IEC
			60945
			Corrigendum
			1
			(2008),
		<del></del>	Whistles —
			COLREG
			72
			Annex
			III/1
			(Performance),
		_	Bells
			or
			Gongs —
			COLREG
			72
			Annex
			III/2
			(Performance).

## 7. Bulk carrier safety equipment

No.	Item designation	Regulation SOLAS 74, 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
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1	2	3	4	5	6
A.2/7.1	Loading instrument	<ul><li>Reg. XII/1</li><li>1997</li><li>SOL. Conf Res.</li></ul>	— 1997 AS SOL. erence Conf	AS Circ erence 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-1/4 — Reg. X/3.	— IMO Res. MSC (1994 HSC Code 12, IMO Res.	.36(63)- .97(73)- )	

- **(1)** OJ L 46, 17.2.1997, p. 25.
- (2) OJ L 304, 14.11.2013, p. 1.
- (**3**) OJ L 220, 25.7.2014, p. 1.