Maritime and Coastguard Agency

MERCHANT SHIPPING NOTICE

MSN 1735 (M+F)

Amended by amendment 4

Type Approval of Marine Equipment (UK Nominated Bodies)

Notice to Manufacturers, Shipbuilders, Shipowners, Ship Operators and Managers, Designers and Marine Consultants, Masters and Officers of Merchant Ships, Skippers of Fishing Vessels and Owners of Yachts and Pleasure Craft

This Notice supersedes Merchant Shipping Notice No.M.1645 and MGN 43. The following text is to be inserted in MSN 1688 - end of para 1, and MSN 1714 - end of para 3:
'In the case of a ship of a Member State of the European Union, the performance standards applicable to equipment installed on or after 1 January 1999 are specified in the Merchant Shipping (Marine Equipment) Regulations 1999, as they may be amended from time to time.'

Summary

This Notice covers equipment listed in Annex A.2 of Directives 96/98/EC and 98/85/EC where no detailed internationally agreed testing standards exist. This equipment will continue to be type approved by the Nominated Bodies until international standards are agreed.

This Notice advises about:-

- the delegation of marine equipment approvals by the MCA to the Nominated Bodies
- the appropriate tests and procedures to be used for future type approvals
- the categories of equipment for which approval has been delegated
- the retention by MCA of type approval of novel items

1 Introduction

1.1 The Merchant Shipping (Marine Equipment) Regulations 1999 SI (1999 No. 1957) provide for the "type approval" of marine equipment, of a safety or pollution prevention nature, for use on board United Kingdom ships. This legislation implements the European Community (EC) Directive 96/98/EC of 20 December 1996 on Marine Equipment and 98/85/EC of 11 November 1998. Directive 98/85/EC contains an Annex A which amends Annex A of Council Directive 96/98/EC. After 30 April 1999, the testing standards in the amended Annex A must be used to obtain an EC type approval certificate. However, for equipment manufactured between 1 January 1999 and 30 April 1999, manufacturers may use the testing standards contained in Annex A of 96/98/EC.

1.2 *The equipment listed in this notice covers equipment listed in Annex A 2 of Directives 96/98/EC and 98/85/EC* where no detailed internationally agreed testing standards exist. Such equipment will continue to be type approved by the Nominated Bodies to standards agreed with the MCA until international standards are agreed.

1.3 Type approval of Annex A 1 Equipment must be conducted by an EC Notified Body. Details of Notified Bodies nominated by the UK are contained in MSN 1734.

1.4 Where equipment is of a novel nature or subject to significant design changes or the specifications or testing requirements are not considered to be sufficiently developed or experience of their usage is limited, the MCA will undertake the necessary approval procedure.

1.5 Procedures have been agreed with the bodies listed in the Annex which are nominated as "persons" (as referred to in the Merchant Shipping (Delegation of Type Approval) Regulations 1996) who may undertake the examination, testing and certification of the equipment listed in the Annex for which type approval is normally appropriate.

1.6 Existing MCA type approval certificates for equipment listed in the Annex to this notice will remain valid until their expiry date or until 31 December 2000, or until cancelled. Upon the expiry date of the certificate, manufacturers are advised to re-apply for renewal of their certificate to a Nominated Body. If requirements have not changed a new certificate will be issued. All new certificates of type approval will be valid for a period of up to 5 years.

1.7 Unless there is a change in the required standard, existing type approved equipment already fitted on board ship will continue to be accepted providing it operates satisfactorily. If it needs to be replaced, then it must be replaced with equipment for which a current type approval certificate is in force.

1.8 Equipment for new ships or for fitting on existing ships, where required to be type approved, should be type approved to the latest standards.

2 TYPE APPROVAL PROCEDURE

2.1 Application for Type Approval

2.2 A manufacturer or person wishing to gain type approval of equipment listed in this notice for use on UK ships should submit an application to a Nominated Body. The application should include:

.1 the name and address of the manufacturer and, if the application is lodged by an authorised representative, his name and address;

.2 a written declaration that the same or a similar application has not been lodged with another Nominated Body;

.3 the technical documentation stated in paragraph 3; and

.4 the applicant is to place at the disposal of the Nominated Body sufficient specimens representative of the production envisaged. The Nominated Body may request further specimens if needed for carrying out the test programme.

2.3 The technical documentation is to enable conformity of the product with the requirements of the relevant regulations and test standards to be assessed. It is, as far as relevant for such an assessment, to cover the design, build standard, manufacture and functioning of the equipment.

2.4 Type approval tests are to be conducted at a United Kingdom Accreditation Services (UKAS) or equivalent national body accredited laboratory unless no such laboratory is available. In this instance an alternative laboratory recognised by the Nominated Body as offering suitable and satisfactory guarantees of technical and professional competence, quality procedures and autonomy with particular reference to the application of EN 45001 or ISO/IEC Guide 25 may be used.

2.5 The Nominated Body will:-

.1 examine the technical documentation and verify that the equipment has been manufactured in conformity with the technical documentation;

.2 agree with the applicant the location where the examination and necessary tests are to be carried out; and

.3 perform or have performed the appropriate examination and necessary tests to check whether the relevant requirements are complied with.

2.6 Where the equipment meets the provisions of the relevant applicable instruments and test and performance standards, the Nominated Body will issue a certificate of type approval to the applicant. The certificate will contain the name and address of the manufacturer, details of the equipment, conclusions of the examination, conditions for its validity and the necessary data for identification of the approved type.

2.7 A list of the relevant parts of the technical documentation including drawings and instructions will be annexed to the certificate and a copy kept by the Nominated Body.

2.8 If the manufacturer is refused a certificate of type approval, the Nominated Body will provide detailed reasons for such refusal.

2.9 The applicant must inform the Nominated Body that holds the technical documentation concerning the certificate of type approval of all modifications to the approved product which must receive additional approval where such changes may affect the conformity with the requirements or the prescribed conditions for use of the equipment. This additional approval will be given in the form of an addition to the original certificate of type approval.

2.10 Each Nominated Body shall communicate upon request to the MCA and other Nominated Bodies the relevant information concerning the certificates of type approval and additions issued and withdrawn.

2.11 The certificate of type approval and/or their additions and the annexes to the certificates will be kept at the disposal of the MCA and the other Nominated Bodies for the period specified in paragraph 2.12 and 2.13.

2.12 The manufacturer or his authorised representative is to keep with the technical documentation copies of certificates of type approval and their additions for a period of at least ten years after the last product has been manufactured.

2.13 The Nominated Body is to keep the technical documentation, other documentary evidence used to type approve the equipment and copies of certificates of type approval with their additions for a period of at least ten years after the issue of each certificate of type approval.

3 Technical documentation supplied by the Manufacturer to the Nominated Body

3.1 The technical documentation must contain all relevant data or means used by the manufacturer to ensure that the equipment complies with the essential requirements relating to it.

3.2 The technical documentation must enable understanding of the design, manufacture and operation of the product and assessment of conformity with the relevant requirements.

3.3 The documentation shall contain so far as is relevant for assessment:-

.1 a general description of the equipment;

.2 conceptual design and manufacturing drawings and schemes of components, and relevant supporting drawings;

.3 descriptions and explanations necessary for the understanding of the said drawings and schemes, including the operation of the equipment;

.4 results of design calculations made, impartial examinations carried out, etc;

.5 impartial test reports; and

.6 manuals for installation, use and maintenance.

3.4 Where appropriate, the design documentation must contain the following elements:-

.1 attestations relating to the equipment incorporated in the appliance;

.2 attestations and certificates relating to the methods of manufacture and/or inspection and/or monitoring of the appliance; and

.3 any other document making it possible for the Nominated Body to improve its assessment.

3.5 On receipt of notification the Nominated Body will, in consultation with the manufacturer, agree on such particulars as may be required to enable him to undertake an assessment of the equipment and issue the relevant certificate of type approval.

4 Waiver

In consultation with the MCA, the Nominated Body may waive the requirement for any test specifically cited in a performance standard providing it is satisfied that the sample has met the criteria of a specification superior to that of the prescribed test.

5 Non-Compliance

If the equipment is not found to meet the

appropriate standard(s) the applicant will be notified, in writing, of the non-compliance.

6 Re-Submission

6.1 Where a submission has been rejected after completion of the type approval procedure by the Nominated Body, the manufacturer will be required to modify the equipment to take account of the reasons for non-compliance before making a new submission to the Nominated Body. In the manufacturer's application to the Notified Body he must include

(a) the original examination and test results;

(b) the detailed reasons provided by the Nominated Body for the previous refusal: and

(c) details of all modifications made to the equipment since the previous application.

6.2 Upon receipt of the re-submission, together with the application form the Nominated Body will re-open the approval procedure.

7 Issue of Type Approval

7.1 Providing that the Notified Body is satisfied that the equipment complies in all respects with the specifications laid down by the MCA and subject to the provisions below, the Nominated Body will issue a certificate of type approval stating the terms and conditions of approval and period of validity which will be of up to 5 years.

7.2 A certificate of type approval refers only to equipment identical to that assessed. It is also a condition of issue of the certificate that a manufacturer shall consult with the Nominated Body prior to any alteration to the build standard of the equipment, hardware, software or firmware.

7.3 The Nominated Body may require further testing and assessment to be undertaken in the event of a modification, or series of modifications, being considered to constitute sufficient departure from the build standard of the equipment hardware, software or firmware for which the certificate of type approval was originally issued.

Section 8 - Information about Type Approvals

8.1. Information concerning Type Approved Marine Equipment and how to obtain type approval for equipment listed in the Annex A.2. is available from:

ABS Europe Ltd
1 Frying Pan Alley
London E1 7HR
Tel: 0207 377 2453
Fax: 0207 247 3255

Bureau Veritas Marine Division
Head of Department Technology Equipment
67/71 Boulevard du Chateau
92200 Neuilly-sur-Seine
France
Tel. + 33 1 55 24 75 73
Fax. + 33 1 55 24 70 45

Det Norske Veritas
Palace House
3 Cathedral Street
London SE1 9DE
Tel: 0207 357 6080
Fax: 0207 357 6048

Germanischer Lloyd AG
Vorsetzen 35
20459 Hamburg
Germany
Tel: 0049 40 36149 319
Fax: 0049 40 36149 7399

London Design Suppport Services
Lloyds Register EMEA
71 Fenchurch Street
London EC3M 4BS
Tel: 0207 423 2566
Fax: 0207 423 2053

QINETIQ Ltd.
Cody Technology Park
Building A5 Room 1005
Ivley Road
Farnborough GU14 0LX
Tel: 01252 394 009 or 01252 394 236
Fax: 01252 397 058

Registro Interbationale Navale (RINa Spa)
4th Floor, Kingston House
29-31 Kingston Crescent
Portsmouth
PO2 8AA
Tel: 02392 666320
Fax: 02392 666845

ANNEX A.2. EQUIPMENT FOR WHICH NO DETAILED TESTING STANDARDS EXIST IN INTERNATIONAL INSTRUMENTS

Commission Directive 2009/26/EC of 6 April 2009
Amending Council Directive 96/98/EC on marine equipment
Annex A. 2 ~ Equipment for which no detailed testing standards exist in international instruments

1. Life saving appliances

1. Life-saving appliances

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

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

Other ~ Life saving appliances

Item designation
Lifeboat equipment (oars, knives, matches, torches, electrical equipment, etc)
LSA gas inflation system
LSA miscellaneous equipment (emergency life-line etc.)
Lifeboat manual pumps
Emergency equipment lockers
Sea anchors
Survival craft first aid kits
Survival craft rations and water
Lifejacket material
Non-SOLAS liferafts, rescue boats and inflatable boats
Foam buoyancy material
Glass fibre materials
Polyester resin
Lifejackets - inflatable (Adult/Child) to modified CAA specification - single compartment
Float free arrangements for Search and Rescue Transponder (SART)

2. Marine pollution prevention

No.	Item designation	Regulation MARPOL 73/78 where "type approval" is required	Regulations of MARPOL 73/78 and the relevant resolutions and circulars of the IMO, applicable	Testing standards	Modules for conformity assessment
1	2	3	4	5	6
A.2/2.1	On- board NOx monitoring and recording devices	Moved to A.1/2.8			
A.2/2.2	On-board exhaust gas cleaning systems	-Annex VI, Reg. 13, -Annex VI, Reg. 14.	-Annex VI Reg. 13, -Annex VI Reg. 14.	-IMO Res. MEPC.170(57).	
A.2/2.3	Other equivalent methods to reduce on board NOx emissions	-Annex VI, Reg. 13.	-Annex VI, Reg. 13.		
A.2/2.4	Other technological methods to limit SOx emissions	Moved to A.1/2.9			

Other Marine Pollution prevention equipment

Item designation	
Crude oil washing machines	MARPOL 73/78 Annex 1 Regulation 33.2, IMO Resolution A.466(XI) para 4.2 as amended

3. Fire protection equipment

No.	Item designation	Regulation SOLAS 74 where "type approval" is required	Regulations of SOLAS 74 and the relevant resolutions and circulars of the IMO, as applicable	Testing standards	Modules for conformity assessment
1	2	3	4	5	6
A.2/3.1	Non-portable and transportable extinguishers	Moved to A.1/3.52			
A.2/3.2	Nozzles for fixed pressure water-spraying fire-extinguishing systems for special category spaces, ro-ro cargo spaces, ro-ro spaces and vehicle spaces	Moved to A.1/3.49			
A.2/3.3	Cold-weather starting of generator sets (starting devices)	-Reg. II-1/44, -Reg. X/3.	-Reg. II-1/44, -IMO Res. MSC.36(63)-(1994 HSC Code), -IMO Res. MSC.97(73)-(2000 HSC Code).		
A.2/3.4	Dual purpose type nozzles (spray/jet type)	Moved to A.1/3.55			

1	2	3	4	5	6
A.2/3.5	Fixed fire detection and fire alarm systems components for control stations, service spaces, accommodation spaces, machinery spaces and unattended machinery spaces	Moved to A.1/3.51			
A.2/3.6	Smoke detectors	Moved to A.1/3.51			
A.2/3.7	Heat detectors	Moved to A.1/3.51			
A.2/3.8	Electric safety lamp	-Reg. II-2/10, -Reg. X/3, -IMO Res. MSC.98(73)-(FSS Code).	-Reg. II-2/10, -IMO Res. MSC.36(63)-(1994 HSC Code), -IMO Res. MSC.97(73)-(2000 HSC Code), -IMO Res. MSC.98(73)-(FSS Code).	-IEC Publication 79.	
A.2/3.9	Protective clothing resistant to chemical attack	-Reg. II-2/19.	-Reg. II-2/19, -IMO Res. MSC.36(63)-(1994 HSC Code) 7, -IMO Res. MSC.97(73)-(2000 HSC Code) 7.	-EN 943-1 (2002), -EN 943-1 (2002) including AC (2005), -EN 943-2 (2002), -EN ISO 6529 (2003), -EN ISO 6530 (2005), -EN 14605 (2005), -IMO MSC/Circ.1120.	
A.2/3.10	Low-location lighting systems	Moved to A.1/3.40			
A.2/3.11	Nozzles for fixed pressure water spraying fire extinguishing systems for machinery spaces	Moved to A.1/3.10			

1	2	3	4	5	6
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)	-Reg. II-2/10, -Reg. X/3, -IMO Res. MSC.98(73)-(FSS Code) 3.	-Reg. II-2/10, -IMO Res. MSC.36(63)-(1994 HSC Code) 7, -IMO Res. MSC.97(73)-(2000 HSC Code) 7, -IMO Res. MSC.98(73)-(FSS Code) 3.	-EN 14593-1 (2005), -EN 14593-2 (2005).	
A.2/3.14	Fire hoses (reel type)	Moved to A.1/3.56			
A.2/3.15	Sample extraction smoke detection systems components	-Reg. II-2/7, -Reg. II-2/19, -Reg. II-2/20, -IMO Res. MSC.98(73)-(FSS Code).	-Reg. II-2/7, -Reg. II-2/19, -Reg. II-2/20, -IMO Res. MSC.98(73)-(FSS Code).		
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.	-Reg. II-2/10, -IMO Res. MSC.98(73)-(FSS Code), -IMO MSC.1/Circ.1239.		
A.2/3.22	Galley exhaust Duct fixed fire extinguishing systems components	-Reg. II-2/9.	-Reg. II-2/9.		

1	2	3	4	5	6
A.2/3.23	Helicopter deck fire extinguishing systems components	-Reg. II-2/18.	-Reg. II-2/18, -IMO MSC.1/Circ.1239.	-EN 13565-1 (2003) including A1 (2007).	
A.2/3.24	Portable foam applicator units	-Reg. II-2/10, -Reg. II-2/20, -Reg. X/3.	-Reg. II-2/10, -Reg. II-2/20, -IMO Res. MSC.36(63)-(1994 HSC Code) 7, -IMO Res. MSC.97(73)-(2000 HSC Code) 7, -IMO Res. MSC.98(73)-(FSS Code) 4, -IMO MSC.1/Circ.1239.		
A.2/3.25	C class divisions	-Reg. II-2/3.	-Reg. II-2/3.	-IMO Res. A.653(16), -IMO Res. A.799(19), -IMO Res. MSC.61(67)-(FTP Code) Annex 1 Part 1 and Part 5 and Annex 2, -ISO 1716 (1973).	
A.2/3.26	Gaseous fuel systems used for domestic purposes (components)	-Reg. II-2/4.	-Reg. II-2/4, -IMO MSC.1/Circ.1276.		
A.2/3.27	Fixed gas fire extinguishing systems (CO_2) components.	-Reg. II-2/5, -Reg. II-2/10, -Reg. X/3.	-Reg. II-2/5, -Reg. II-2/10, -Reg. II-2/20, -IMO Res. MSC.36(63)-(1994 HSC Code) 7, -IMO Res. MSC.97(73)-(2000 HSC Code) 7, -IMO Res. MSC.98(73)-(FSS Code) 7.	-EN 12094-1 (2003), -EN 12094-2 (2003), -EN 12094-3 (2003), -EN 12094-4 (2004), -EN 12094-5 (2006), -EN 12094-6 (2006), -EN 12094-7 (2000) including A1 (2005), -EN 12094-8 (2006), -EN 12094-10 (2003), -EN 12094-11 (2003), -EN 12094-13 (2001) including AC (2002), -EN 12094-16 (2003).	

1	2	3	4	5	6
A.2/3.28	Medium expansion foam fire extinguishing systems components - fixed deck foam for tankers	Moved to A.1/3.57			
A.2/3.29	Fixed low expansion foam fire extinguishing systems components for machinery spaces and tanker deck protection.	Moved to A.1/3.58			
A.2/3.30	Expansion foam for fixed fire extinguishing systems for chemical tankers	Moved to A.1/3.59			
A.2/3.31	Water spraying hand-operated system	-Reg. II-2/10,	-Reg. II-2/10, A800(19).		

Other ~ Fire Protection Equipment

Item designation
Firemain and hydrants (components)
Fire blankets
Remote closing valves for oil fuels
Portable foam applicator units
Fixed pressure water spraying fire extinguishing system in cargo spaces
Paint lockers and flammable liquid lockers fire extinguishing system (components)
Galley exhaust duct fixed fire extinguishing system (components)
Helicopter deck fire extinguishing system (components)
C class divisions
Fixed low expansion foam extinguishing system for deck and machinery spaces (components)
Expansion foam for fixed fire extinguishing system for chemical tankers
Gaseous fuel systems used for domestic purposes (components)
Fixed CO_2 system (components)
Sample extraction smoke detection system
Fire hose reels
Safety lamps & torches
Deck foam systems
Pressure Vacuum Valves (other than pressure vacuum valves for the cargo tanks of oil tankers)
International Shore Connection

4. Navigation equipment

Notes applicable to section 4: Navigation equipment

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

No.	Item designation	Regulation SOLAS 74 where "type approval" is required	Regulations of SOLAS 74 and the relevant resolutions and circulars of the IMO, as applicable	Testing standards	Modules for conformity assessment
1	2	3	4	5	6
A.2/4.1	Gyro compass for high-speed craft	Moved to A.1/4.31			
A.2/4.2	Heading control system for high-speed craft (formerly auto-pilot)	Moved to A.1/4.40			
A.2/4.3	Transmitting heading device THD (GNSS method)	Moved to A.1/4.41			
A.2/4.4	Daylight signalling lamp	-Reg. V/18, -Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code), -IMO Res. MSC.97(73)-(2000 HSC Code).	-Reg. V/19, -IMO Res. A.694(17), -IMO Res. MSC.36(63)-(1994 HSC Code), -IMO Res. MSC.95(72), -IMO Res. MSC.97(73)-(2000 HSC Code).	-EN 60945 (2002) -ISO 25861 (2007), or, -IEC 60945 (2002), -ISO 25861 (2007).	
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			

1	2	3	4	5	6
A.2/4.8	Electronic chart display and information system (ECDIS).	Moved to A.1/4.30			
A.2/4.9	Electronic chart display and information system (ECDIS) backup	Moved to A.1/4.30			
A.2/4.10	Raster chart display system (RCDS)	Moved to A.1/4.30			
A.2/4.11	Combined GPS/Glonass equipment	-Reg. V/18, -Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code), -IMO Res. MSC.97(73)-(2000 HSC Code).	-Reg. V/19, -IMO Res. A.694(17), -IMO Res. MSC.36(63)-(1994 HSC Code), -IMO Res. MSC.74(69), -IMO Res. MSC.97(73)-(2000 HSC Code).	-EN 60945 (2002), -EN 61162 series, or -IEC 60945 (2002), -IEC 61162 series.	
A.2/4.12	DGPS, DGlonass equipment	Moved to A.1/4.44, A.1/4.50 and A.1/4.51			
A.2/4.13	Gyro compass for high-speed craft	Moved to A.1/4.31			
A.2/4.14	Voyage data recorder (VDR)	Moved to A.1/4.29			
A.2/4.15	Integrated navigation system	-Reg. V/18, -Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code) 13, -IMO Res. MSC.97(73)-(2000 HSC Code) 13.	-Reg. V/19, -IMO Res. A.694(17), -IMO Res. MSC.86(70).	-EN 60945 (2002), -EN 61162 series, -IEC 61924 (2006), or -IEC 60945 (2002), -IEC 61162 series, -IEC 61924 (2006).	
A.2/4.16	Integrated bridge system	Deliberately left blank			

1	2	3	4	5	6
A.2/4.17	Radar target enhancer	-Reg. V/18, -Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code), -IMO Res. MSC.97(73)-(2000 HSC Code).	-IMO Res. A.694(17), -IMO Res. MSC.164(78), -ITU-R M 1176 (10/95).	-EN 60945 (2002), or -IEC 60945 (2002).	
A.2/4.18	Sound reception system	-Reg. V/18, -Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code), -IMO Res. MSC.97(73)-(2000 HSC Code).	-Reg. V/19, -IMO Res. A.694(17), -IMO Res. MSC.36(63)-(1994 HSC Code), -IMO Res. MSC.86(70), -IMO Res. MSC.97(73)-(2000 HSC Code).	-EN 60945 (2002), -EN 61162 series, or -IEC 60945 (2002), -IEC 61162 series.	
A.2/4.19	Magnetic compass for high speed craft	-Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code), -IMO Res. MSC.97(73)-(2000 HSC Code).	-IMO Res. A.382(X), -IMO Res. A.694(17), -IMO Res. MSC.36(63)-(1994 HSC Code), -IMO Res. MSC.97(73)-(2000 HSC Code).	-EN ISO 449 (1999), -EN ISO 694 (2001), -ISO 1069 (1973), -ISO 2269 (1992), -EN 60945 (2002), or -ISO 449 (1997), -ISO 694 (2000), -ISO 1069 (1973), -ISO 2269 (1992), -IEC 60945 (2002).	
A.2/4.20	Track control system for high-speed craft	-Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code), -IMO Res. MSC.97(73)-(2000 HSC Code).	-IMO Res. A.694(17), -IMO Res. MSC.36(63)-(1994 HSC Code), -IMO Res. MSC.97(73)-(2000 HSC Code).	-EN 60945 (2002), -EN 61162 series, or -IEC 60945 (2002), -IEC 61162 series.	
A.2/4.21	Chart facilities for shipborne radar	Moved to A.1/4.45			

1	2	3	4	5	6
A.2/4.22	Transmitting heading device THD (gyroscopic method)	Moved to A.1/4.46			
A.2/4.23	Transmitting heading device THD (magnetic method)	Moved to A.1/4.2			
A.2/4.24	Thrust indicator	-Reg. V/18, -Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code), -IMO Res. MSC.97(73)-(2000 HSC Code).	-Reg. V/19, -IMO Res. A.694(17), -IMO Res. MSC.36(63)-(1994 HSC Code), -IMO Res. MSC.97(73)-(2000 HSC Code).	-EN 60945 (2002), -EN 61162 series, or -IEC 60945 (2002), -IEC 61162 series.	
A.2/4.25	Lateral thrust, pitch and mode indicators	-Reg. V/18, -Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code), -IMO Res. MSC.97(73)-(2000 HSC Code).	-Reg. V/19, -IMO Res. A.694(17), -IMO Res. MSC.36(63)-(1994 HSC Code), -IMO Res. MSC.97(73)-(2000 HSC Code).	-EN 60945 (2002), -EN 61162 series, or -IEC 60945 (2002), -IEC 61162 series.	
A.2/4.26	Rate-of-turn indicator	Moved to A.1/4.9			
A.2/4.27	Rudder angle indicator	Moved to A.1/4.20			
A.2/4.28	Propeller revolution indicator	Moved to A.1/4.21			
A.2/4.29	Pitch indicator	Moved to A.1/4.22			

1	2	3	4	5	6
A.2/4.30	Integrated bridge system	-Reg. V/18, -Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code) 13, -IMO Res. MSC.97(73)-(2000 HSC Code) 13.	-Reg. V/19, -IMO Res. A.694 (17), -IMO Res. MSC.36(63)-(1994 HSC Code) 15, -IMO Res. MSC.64(67), -IMO Res. MSC.97(73)-(2000 HSC Code) 15.	-EN 60945 (2002), -EN 61162 Series, -EN 61209 (1999), or -IEC 60945 (2002), -IEC 61162 Series, -IEC 61209 (1999).	
A.2/4.31	Bearing device	-Reg. V/18.	-Reg. V/19.	-EN 60945 (2002). or -IEC 60945 (2002).	
A.2/4.32	Bridge navigational watch alarm system (BNWAS)		-IMO Res. A.694(17), -IMO Res. MSC.128(75), -IMO MSC/Circ.982.	-EN 60945 (2002), -EN 61162 Series, or -IEC 60945 (2002), -IEC 61162 Series.	
A.2/4.33	Track control system (working at ship's speed from 30 knots and above)	-Reg. V/18, -Reg. X/3.		-EN 60945 (2002).	
A.2/4.34 New item	Equipment with long range identification and tracking (LRIT) capability	-Reg. V/19	-Reg. V/19, -IMO Res. A.694(17), -IMO Res. A.813(19), -IMO Res. MSC.202(81), -IMO Res. MSC.211(81), -IMO Res. MSC.263(84), -IMO MSC.1/Circ 1257.	-EN 60945 (2002), -EN 61162 Series, or -IEC 60945 (2002), -IEC 61162 Series.	

1	2	3	4	5	6
A.2/4.35 New item	Galileo receiver	-Reg. V	-Reg. V, -IMO Res. A.694(17), -IMO Res. A.813(19), -IMO Res. MSC.233(82)	-EN 60945 (2002), -EN 61162 Series, or -IEC 60945 (2002), -IEC 61162 Series.	
A.2/4.36 New item	AIS SART equipment	-Reg. V	-Reg. V, -IMO Res. MSC.246(83), -IMO Res. MSC.247(83), -IMO Res. MSC.256(84).	-EN 60945 (2002), -EN 61162 Series, or -IEC 60945 (2002), -IEC 61162 Series.	

5. Radiocommunication equipment

No.	Item designation	Regulation SOLAS 74 where "type approval" is required	Regulations of SOLAS 74 and the relevant resolutions and circulars of the IMO, as applicable	Testing standards	Modules for conformity assessment
1	2	3	4	5	6
A.2/5.1	VHF EPIRB	-Reg. IV/14, -Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code), -IMO Res. MSC.97(73)-(2000 HSC Code).	-Reg.IV/8, -IMO Res. A.662(16), -IMO Res. A.694(17), -IMO Res. A.805(19), -IMO Res. MSC.36(63)-(1994 HSC Code), -IMO Res. MSC.97(73)-(2000 HSC Code), -ITU-R M.489-2 (10/95), -ITU-R M.693 (06/90).	-EN 60945 (2002), or -IEC 60945 (2002).	
A.2/5.2	Radio reserve source of energy	-Reg. IV/14, -Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code), -IMO Res. MSC.97(73)-(2000 HSC Code).	-Reg. IV/13, -IMO Res. A.694(17), -IMO Res. MSC.36(63)-(1994 HSC Code), -IMO Res. MSC.97(73)-(2000 HSC Code), -IMO COMSAR Circ.16, -IMO COMSAR Circ.32.	-EN 60945 (2002), or -IEC 60945 (2002).	
A.2/5.3	Inmarsat-F SES	Moved to 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), or -IEC 60945 (2002).	

1	2	3	4	5	6
A.2/5.5	Distress alarm or alert 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), or -IEC 60945 (2002).	
A.2/5.6	L- band EPIRB (Inmarsat)	Deliberately left blank			
A.2/5.7	Ship security alert system		-Reg. XI-2/6, -IMO Res. A.694(17), -IMO Res. MSC.147(77), -IMO MSC/Circ.1072.	-EN 60945 (2002), or -IEC 60945 (2002).	

6. Equipment required under Colreg 72

No.	Item designation	Regulation COLREG 72 where "type approval" is required	Regulations of COLREG and the relevant resolutions and circulars of the IMO, as applicable	Testing standards	Modules for conformity assessment
1	2	3	4	5	6
A.2/6.1	Navigation lights	Moved to A.1/6.1.			
A.2/6.2	Sound signal appliances	-Annex III/3.	-Annex III/3, -IMO Res. A.694(17).	-EN 60945 (2002), -Whistles - Colreg 72 Annex III/1 (Performance), -Bells or Gongs - Colreg 72 Annex III/2 (Performance), or -IEC 60945 (1996), -Whistles - Colreg 72 Annex III/1 (Performance), -Bells or Gongs - Colreg 72 Annex III/2 (Performance).	

7. Bulk carrier safety equipment

No.	Item designation	Regulation SOLAS 74 where "type approval" is required	Regulations of SOLAS 74 and the relevant resolutions and circulars of the IMO, as applicable	Testing standards	Modules for conformity assessment
1	2	3	4	5	6
A.2/7.1	Loading instrument	-Reg. XII/11, -1997 SOLAS Conference Res. 5.	-Reg. XII/11, -1997 SOLAS Conference Res. 5.	-IMO MSC.1/Circ 1229.	
A.2/7.2	Water level detectors on bulk carriers	-IMO Res. MSC.188(79).	-Reg. XII/12, -IMO Res. MSC.188(79).	-IEC 60092-0504, -IEC 60529, -IMO Res. MSC.188(79).	

Section 8 - Marine Engineering equipment (Equipment not included in MED annexes and for which no detailed testing standards exist in international instruments)

Item designation
Fuel & lube oil flexible pipes in machinery spaces & couplings
Structural measuring equipment
Watertight Doors

Section 9 - Crew accommodation equipment (Equipment not included in MED annexes and for which no detailed testing standards exist in international instruments)

Item designation
Vacuum discharge piping systems
Thermostatic mixing valves
Plant used to produce drinking and/or fresh water