

IACS Technical Resolutions adopted from January to June 2016

ClassNK has been regularly providing preliminary reports of outcomes of the International Maritime Organization (IMO)'s meetings and the latest development at IACS.

For this issue, we would like to introduce Unified Requirements (URs) and Unified Interpretations (UIs) adopted and published from Jan 2016 to Jun 2016 with their summaries.

URs and UIs are technical resolutions, which are set, revised and withdrawn by IACS. URs are classification rules established for the uniform implementation among IACS member societies. URs shall be incorporated in the rules of each member society within one year of adoption unless otherwise specified.

Uls are developed for uniform interpretations of the requirements of Convention which are left to the satisfaction of the Administration or vaguely worded while Administrations have not set clear instructions.

These resolutions are/will be incorporated into ClassNK's Rules and Guidance for the survey and construction of steel ships after review by ClassNK's relevant Technical Committee.

Texts of these resolutions and their Technical Backgrounds have been published in <u>IACS</u> website. In addition, the underlined versions (revised parts are clearly shown) of URs and UIs have been published in <u>ClassNK's website</u>.

Table 1 List of new/amendments to URs (Unified Requirements) published from Jan 2016 to June 2016

Resolution	Revision	Adoption	Title	Implementation	Outline
UR E22	Rev.2	Jun. 2016	On Board Use and Application of Computer based systems	1 Jul. 2017	(1)
UR Z7.1	Rev.12	Jun. 2016	Hull Surveys for General Dry Cargo Ships	1 Jul. 2017	(2)
UR M73	Corr.1	Jun. 2016	Turbochargers		
UR M71	Corr.1	Jun. 2016	Type Testing of I.C. Engines		
UR M44	Corr.1	Jun. 2016	Documents for the approval of diesel engines		
UR E24	New	Jun. 2016	Harmonic Distortion for Ship Electrical Distribution System including Harmonic Filters	1 Jul. 2017	(3)
UR W22	Rev.6	Jun. 2016	Offshore Mooring Chain	1 Jul. 2017	(4)
UR M74	Rev.1	May. 2016	Installation of ballast water management systems	1 Jan. 2017	(5)
UR M76	New	Apr. 2016	Location of fuel tanks in cargo area on oil and chemical tankers	1 Jul. 2017	(6)
UR I2	Rev.3	Apr. 2016	Structural Requirements for Polar Class Ships	1 Jul. 2017	(7)

Resolution	Revision	Adoption	Title	Implementation	Outline
UR I1	Rev.2	Apr. 2016	Polar Class Descriptions and Application	1 Jul. 2017	(7)
UR E7	Rev.4	Apr. 2016	Cables	1 Jul. 2017	(8)
UR Z1	Rev.6	Apr. 2016	Annual and intermediate classification survey coverage of IMO Resolution A.1104(29)		(9)
UR P2.7.4	Rev.8	Mar.2016	Rules for piping design, construction and testing - Mechanical joints	1 Jan. 2017	(10)
UR P2.11	Rev.4	Mar.2016	Rules for piping design, construction and testing –Type approval of mechanical joints	1 Jan. 2017	(10)
UR P2.12	Rev.2	Mar.2016	Rules for piping design, construction and testing – Flexible hoses	1 Jan. 2017	(10)
UR W16	Rev.3	Mar.2016	High Strength Steels for Welded Structures	1 Jul. 2017	(11)
UR M72	Rev.1	Mar.2016	Certification of Engine Components	1 Jul. 2017	(12)
UR M36	Rev.5	Mar.2016	Alarms and safeguards for auxiliary reciprocating internal combustion engines driving generators in unattended machinery spaces	1 Jul. 2017	(13)
UR M35	Rev.7	Mar.2016	Alarms, remote indications and safeguards for main reciprocating I.C. engines installed in unattended machinery spaces	1 Jul. 2017	(13)
UR Z7	Rev.24	Feb.2016	Hull Classification Surveys	1 Jul. 2017	(14)
UR M75	New	Feb.2016	Ventilation of emergency generator rooms	1 Jan. 2017	(15)
UR G3	Rev.6	Jan.2016	Liquefied gas cargo and process piping	1 Jan. 2017	(16)
UR P3	Rev.4	Jan.2016	Air Pipe Closing Devices	1 Jan. 2017	(17)
UR W17	Rev.4	Jan.2016	Approval of consumables for welding normal and higher strength hull structural steels	1 Jul. 2017	(18)

^{*}Corr.(Corrigenda) means the correction that basically does not include the contents of resolution but literal error.

Table 2 List of new/amendments to UIs (Unified Interpretations) published from Jan 2016 to June 2016

Resolution	Revision	Adoption	Title	Implementation	Outline
UI SC191	Corr.1	Jun. 2016	IACS Unified Interpretations (UI) SC 191 for the application of amended SOLAS regulation II-1/3-6 (resolution MSC.151(78)) and revised Technical provisions for means of access for inspections (resolution MSC.158(78))		
UI MODU1	Corr.1	Jun. 2016	IACS Unified Interpretations for the application of MODU Code Chapter 2 paragraphs 2.1, 2.2, 2.3, 2.4 and revised technical provisions for means of access for inspections (resolution MSC.158(78))		
UI SC280	New	Jun. 2016	Angle of down-flooding (φf) / Angle at which an opening incapable of being closed weathertight (θv)	1 Jan. 2017	(19)
UI MPC129	New	Jun. 2016	Unprotected openings	1 Jan. 2017	(19)
UI LL80	New	Jun. 2016	Unprotected openings	1 Jan. 2017	(19)
UI GC17	New	Jun. 2016	Unprotected openings	1 Jan. 2017	(19)

UI CC7	New	Jun. 2016	Unprotected openings	1 Jan. 2017	(19)
UI MPC11	Rev.2	Jun. 2016	Interpretation to MARPOL I/27	1 Jan. 2017	(19)
UI SC234, LL76 & MPC96	Delete	Jun. 2016	Initial Statutory Surveys at New Construction		(20)
UI SC279	New	Jun. 2016	Annual testing of VDR, S-VDR, AIS and EPIRB	1 Jul. 2017	(21)
UI SC253	Rev.1	May.2016	Fire resistance requirements for fibre-reinforced plastic (FRP) gratings used for safe access to tanker bows (IMO Res. MSC.62(67))	1 Jan. 2017	(22)
UI MPC124	Delete	May.2016	2011 Guidelines Addressing Additional Aspects to the NOx Technical Code 2008 with regard to Particular Requirements related to Marine Diesel Engines fitted with Selective Catalytic Reduction (SCR) Systems (Resolution MEPC.198(62), Section 7.5)		(23)
UI MPC121	Delete	May.2016	2011 Guidelines Addressing Additional Aspects to the NOx Technical Code 2008 with regard to Particular Requirements related to Marine Diesel Engines fitted with Selective Catalytic Reduction (SCR) Systems (Resolution MEPC.198(62), Section 6.3.1.1)		(23)
UI MPC119	Delete	May.2016	2011 Guidelines Addressing Additional Aspects to the NOx Technical Code 2008 with regard to Particular Requirements related to Marine Diesel Engines fitted with Selective Catalytic Reduction (SCR) Systems (Resolution MEPC.198(62), Section 5.1.1)		(23)
UI MPC107	Delete	May.2016	2011 Guidelines Addressing Additional Aspects to the NOx Technical Code 2008 with regard to Particular Requirements related to Marine Diesel Engines fitted with Selective Catalytic Reduction (SCR) Systems (Resolution MEPC.198(62), Section 3.1.1)		(23)
UI TM3	Delete	Apr.2016	Interpretation of International Tonnage Calculation: Open Deck Spaces Bounded by Partitions or Bulkheads (ITC69 regulation 2(4), 2(5) and 6)		(24)
UI SC242	Rev.1	Apr.2016	Arrangements for steering capability and function on ships fitted with propulsion and steering systems other than traditional arrangements for a ship's directional control	1 Jul. 2017	(25)
UI MPC93	Rev.1	Apr.2016	Annex I of MARPOL 73/78 Regulation 23 Accidental oil outflow performance, as amended by Resolution MEPC.117(52)	1 Jul. 2017	(26)
UI GC16	New	Mar. 2016	Cargo tank clearances (on ships constructed on or after 1 July 2016)	1 Jul. 2016	(27)
UI GC13	Rev.1	Mar. 2016	Examination before and after the first loaded voyage	1 Jul. 2016	(27)
UI GC6	Rev.1	Feb. 2016	Cargo tank clearances		(27)
UI GC5	Rev.1	Feb. 2016	Closing Devices for Air Intakes		(27)
UI GC15	New	Feb. 2016	Closing Devices for Air Intakes	1 Jul. 2016	(27)

UI GC11	Rev.1	Feb. 2016	Loading of cargo C tanks for ships constructed before 1 July 2016 and subject to IMO International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (MSC.5(48))	1 Jul. 2016	(27)
UI MPC127	New	Feb. 2016	Annex I of MARPOL 73/78 Regulation 14.7	1 Jan. 2017	(28)
UI SC278	New	Jan.2016	Escape from accommodation spaces, service spaces and control stations on cargo ships	1 Feb. 2016	(29)
UI SC277	New	Jan.2016	Escape from machinery spaces on cargo ships	1 Feb. 2016	(29)
UI SC276	New	Jan.2016	Escape from machinery spaces on passenger ships	1 Feb. 2016	(29)
UI SC275	New	Jan.2016	Suitable number of spare air cylinders to be provided in connection with drills	1 Jan. 2017	(30)
UI SC267	Rev.1	Jan. 2016	Implementation of the requirements relating to lifeboat release and retrieval systems (LSA Code Paragraph 4.4.7.6 as amended by resolution MSC.320(89))	1 Jul. 2016	(31)

^{*}Corr.(Corrigenda) means the correction that basically does not include the contents of resolution but literal error.

Outlines of IACS Technical Resolutions listed in the above Tables are mentioned below.

(1) UR E22 (Rev.2)

UR E22 applies to design, construction, commissioning and maintenance of computer based systems and focuses on the functionality of the software and on the hardware supporting the software. These requirements apply to the use of computer based systems which provide control, alarm, monitoring, safety or internal communication functions which are subject to classification requirements. A complete revision of the UR was done taking into consideration concerns raised by Industry related to the increasing complexity and of on-board fragmentation systems man-machine interfaces. The revision focused on introducing top down analysis of systems including programmable code, life cycle approach of these systems and responsibility for each system.

(2) UR Z7.1 (Rev.12)

UR Z7.1 stipulates requirements of survey of General Dry Cargo Ships, including extent of thickness measurements. IACS considered an Accreditation Body (ACB) query on the meaning of the sentence "The thickness measurements may be dispensed with provided the surveyor is satisfied by the close-up examination, that there is no structural diminution, and the hard protective coating where applied remains efficient", in particular if the

thickness measurements might be totally avoided when the prerequisites are fulfilled. It was concluded that this is not appropriate and this sentence was deleted from the UR in Rev.12.

(3) UR E24 (New)

IACS considered a recommendation made by UK MAIB, following investigation of the catastrophic failure of a harmonic filter installed on board a UK flag passenger vessel, to introduce requirements for survey of harmonic filters and harmonic distortion levels. As a result, UR E24 was developed to stipulate that Total Harmonic Distortion (THD) of electrical distribution systems is not to exceed 8%. Also the UR details requirements for monitoring of harmonic distortion levels for a ship including harmonic filters, mitigation of the effects of harmonic filter failure on a ship's operation and protection arrangements for harmonic filters.

(4) UR W22 (Rev.6)

UR W22 applies to the materials, design, manufacture and testing of offshore mooring chain and accessories intended to be used for applications such as mooring of mobile offshore units, mooring of floating production units, offshore loading systems and gravity based structures during fabrication. By the comprehensive revision of UR W22 this time, detailed requirements on the heat treatment furnaces and processes for offshore mooring chain and accessories, non-destructive

examination, dimensions and dimensional tolerances of links etc. are added.

(5) UR M74 (Rev.1)

UR M74 details of the requirements of installation of the Ballast Water Management Systems (BWMS) based on BWM Convention in order to assist shipyards, ship owners and makers of BWMS in smooth implementation of the Convention. This UR has been developed based on the results of the risk assessment and experience and knowledge of IACS Members. Rev.1 provides further clarification of the requirements such as updated definition of hazardous area as per IGC Code, requirement on minimum treatment rate, standard internal diameter of sampling pipes, additional precautions for the ventilation of the spaces and protection of the crew in hazardous areas etc.

(6) UR M76 (New)

Due to Emission Control Areas' requirements to use of marine fuels with a sulphur content not exceeding 0.1 % m/m (per MARPOL Annex VI) and minimum viscosity of 2 cSt (per UI SC255 and IMO MSC.1/Circ.1467), typically for marine gas oil MGO, the ultra-low sulphur fuel tank capacity on-board standard designs is found inadequate and therefore owners and yards are seeking to expand such capacity by adding fuel tanks within the cargo area. UR M76 details acceptable locations and arrangements for fuel tanks on oil and chemical tankers based on SOLAS Ch.II-2 Reg.4.5, also taking into account Reg.12A and 19 of MARPOL Annex I.

(7) UR I1 (Rev.2) & UR I2 (Rev.3)

UR I1 provides Notation and application of polar class ships, which are constructed of steel and intended for navigation in ice-infested polar waters. UR I2 stipulates detailed structural requirements for polar class ships. URs I1 & I2 were revised mainly to introduce specific requirements for the ships having non-icebreaking bow form such as bulbous bow and the ships assigned as Icebreaker, which is engaged to aggressive operations such as escort operation. In addition, the requirements for direct analysis where web frames and other member were forming

part of a structural grillage system were made clearer.

(8) UR E7 (Rev.4)

UR E7 stipulates that cables are to be manufactured and tested in accordance with the relevant recommendations of IEC Publications listed in the UR. The UR is revised taking into consideration the withdrawal or replacement of several IEC standards mentioned in previous revision of UR. Moreover, it is clarified that cables such as flexible cable, fibre-optic cable, etc. used for special purposes may be accepted provided they are manufactured and tested in accordance with the relevant standards accepted by the Classification Society.

(9) UR Z1 (Rev.6)

IMO Res. A.1104(29) "Survey Guidelines Under the Harmonized System of Survey and Certification, (HSSC) 2015", which are, as a minimum, to be covered by classification surveys was recently adopted by IMO. UR Z1 which lists the paragraph numbers for the annual and intermediate Survey requirements under the Guidelines was revised and updated as accordingly.

(10) UR P2.7.4 (Rev.8), P2.11 (Rev.4), & P2.12 (Rev.2)

The UR P2 stipulates rules for piping design, construction and testing. P2.7.4 provides service conditions (where the various kinds of joints may be accepted), and test requirements of mechanical joints such as pipe unions, compression couplings, slip-on joints and similar joints. P2.11 describes the type testing condition for type approval of mechanical joints intended for use in marine piping systems. P2.12 stipulates requirements applicable to flexible hoses of metallic or non-metallic material intended for a permanent connection between a fixed piping system and items of machinery. Application and details of fire resistant type tests for mechanical joints were reviewed and relevant requirements were revised in the current revisions. This is based upon IMO Resolution A.753(18) and queries from shipyards and manufacturers on fire endurance tests for coupling joints or flexible hoses arranged in locations with low fire risk.

(11) UR W16 (Rev.3)

UR W16 stipulates the requirements of high strength steels for welded offshore structures. A complete revision of UR W16 was carried out considering demands from offshore, marine and steel manufacturing Industries. The revision makes the UR in line with the international material standards for high strength steels (EN 10025 and EN10225, and ISO 630) and modern manufacturing technology. Also, the scope of UR was expanded to include steels with yield strength higher than 690 N/mm² which have been successfully used by the offshore industries.

(12) UR M72 (Rev.1)

UR M72 requires hydraulic testing for high pressure fuel injection systems and common servo oil system in engines. For engines having cylinder bore not exceeding 300mm, the hydraulic testing requirements are not sufficiently clear especially for high pressure fuel injection pipes including common fuel rail and high pressure common servo oil systems. The UR was revised to clarify the scope of hydraulic testing.

(13) UR M35 (Rev.7) & UR M36 (Rev.5)

UR M35 and UR M36 stipulate the requirements of alarms, remote indications and safeguards for main and auxiliary reciprocating I.C. engines installed in unattended machinery spaces. The URs were revised to add the speed of turbocharger as a monitoring item for turbocharger systems. This makes the URs consistent with requirements in UR M73 on turbochargers.

(14) UR Z7 (Rev.24 & Rev.25)

UR Z7 stipulates requirements of hull classification surveys for self-propelled vessels.

In regard to requirements of thickness measurements, IACS decided that the thickness measurement reporting forms were provided for both traditional format and another format adopting net scantling design systems, which records as-built thickness, thickness for voluntary addition and renewal thickness in addition to the gauged

thickness. Rev. 24 of the UR intended to revise accordingly by adding these forms as annexes. These annexes are not a mandatory requirements, but of recommendatory nature.

Further, in regard to requirements of the number of fuel oil tanks to be internally examined at Special Surveys, IACS considered such requirements should be based on the tanks' location onboard so that adequate number of tanks is surveyed regardless of the ship configuration and tanks layout. In Rev.25 of the UR, IACS introduces the requirements of additional fuel oil tanks outside of engine room to be surveyed, where no tanks located within the cargo length area.

(15) UR M75 (New)

UR M75 stipulates requirements applicable to ventilation louvers for emergency generator rooms and to closing appliances where fitted to ventilators serving emergency generator rooms. Development of this new UR was instigated by reports of failures of emergency generators caused by inadvertent ventilation louver closing. The UR specifies requirements not only for ventilation louvers and ventilator closing appliances of hand-operated type but also for those of power-operated type.

(16) UR G3 (Rev.6)

UR G3 stipulates requirements applicable to liquefied gas cargo and process piping including cargo gas piping and exhaust lines of safety valves or similar piping. In Rev.6 of the UR it was clarified that, for valves used for isolation of instrumentation in piping not greater than 25mm, unit production testing need not be witnessed by the surveyor. However, records of testing are to be available for review.

(17) UR P3 (Rev.4)

UR P3 stipulates requirements for automatic closing devices fitted on air pipes required by the Rules or Load Line Convention, 1966. Rev.4 of the UR clarifies that the side covers of air pipe head is also part of chamber and are to be of minimum thickness of 6 mm where they are provided and their function is integral to providing functions of the

closing device.

(18) UR W17 (Rev.4)

UR W17 stipulates requirements of approval procedure and annual inspection of welding consumables used for hull structural steels. In the existing UR W17, the mercury method and glycerine method are the methods allowed for measuring hydrogen content of welding consumables. In order to meet the need for the other method of measuring hydrogen content, thermal conductivity detector method listed in ISO 3690:2012 has been introduced into Rev.4 of UR W17.

(19) Uls SC280 (New), MPC129 (New), LL80 (New), GC17 (New), CC7 (New), Ul MPC11 (New)

After the investigation of collision and capsizing of a tug, it was noted that one cause of the capsizing was that the weathertight closing appliances to ventilators of the main engine room were left open in order to ensure an adequate air supply to achieve the required bollard pull. These openings had been considered as closed in the intact stability calculations. UIs were developed for IBC Code 2.9, IGC Code 2.7, MARPOL Annex I/Regulation 27 & 28.3.3, ICLL Regulation 27(13)(e), 2008 IS Code & Grain International Code SOLAS/Ch.II-1-Reg.7-2 to clarify that ventilators which are fitted with weathertight closing devices needs to be considered as down-flooding points in the intact & damage stability calculations when they have to be left open for operational purposes.

(20) Uls SC234 (Delete), LL76 (Delete) & MPC96 (Delete)

IACS is currently developing a set of comprehensive IACS resolutions covering all the requirements of IMO Resolution A.1104(29), Survey Guidelines Under the Harmonized System of Survey and Certification (HSSC). Even though this task is not completed yet, it was decided to withdraw the relevant IACS UIs SC234, LL76 & MPC96 as they only covered survey aspects for initial statutory surveys at new construction.

(21) UI SC279 (New)

UI SC279 provides clarification dealing with the

provisions relevant to the execution of the annual performance test of VDR and S-VDR, AIS and EPIRB expected by the SOLAS regulations V/18.8, V/18.9 and IV/15.9 respectively. It is clarified that the annual performance test shall be carried out within the "time window" of the annual / periodical / renewal survey under the Harmonized System of Survey and Certification (HSSC), but not later than the date of completion of the survey for endorsement / renewal of the relevant Certificate.

(22) UI SC253 (Rev.1)

UI SC253 is intended to provide additional requirements to be considered for the use of FRP gratings in lieu of steel for safe access to tanker bows. This includes defining common understanding for the term "fire resistant" as required by MSC.62(67) Safe access to tanker bows. Rev.1 brings the UI in line with MSC.1/Circ.1504. IMO MSC95 considered that the new ASTM International F3059-14 standard for FRP gratings to be a more appropriate method than USCG MSM Vol. II to evaluate the safety of FRP gratings and therefore standard referred to is changed to ASTM F3059-14.

(23) Uls MPC107 (Delete), MPC119 (Delete), MPC121 (Delete), MPC124 (Delete)

Uls listed above were developed to clarify 2011 Guidelines Addressing Additional Aspects to the NOx Technical Code 2008 with regard to Particular Requirements related to Marine Diesel Engines fitted with Selective Catalytic Reduction (SCR) Systems. These Uls were not supported by IMO PPR3 and therefore IACS agreed to withdraw the Uls and consider submitting a new IACS paper to MEPC70.

(24) UI TM3 (Delete)

UI TM3 was originally developed to clarify the definition of open deck spaces bounded by partitions or bulkheads in the scope of the International Convention on Tonnage Measurement of Ships (1969) since different IACS members and flag administrations have different approaches when measuring these spaces for tonnage purposes. However, IACS decided to withdraw the UI with

immediate effect pending further review to address the concerns raised by IMO SDC3. At SDC3 there were objections from few member states that the UI did not address all ship types.

(25) UI SC242 (Rev.1)

The SOLAS requirements for steering gears have been established for ships having a traditional propulsion system and one rudder-type steering system. UI SC242 provides clarifications to regulations in SOLAS for arrangements for steering capability and function on ships fitted with propulsion and steering systems other than traditional arrangements for a ship's directional control. In Rev.1 of the UI, various terms used for steering systems and its associated equipment are clarified. For example, a definition for 'steering system' was introduced to complement the definition of 'steering gear power unit'. Also a new interpretation to clarify the requirements of ships fitted with multiple steering systems is added.

(26) UI MPC93 (Rev.1)

UI MPC93 clarifies the definition of 'normal overpressure' in the calculation of cargo level after damage (Annex I of MARPOL 73/78 Regulation 23 Accidental oil outflow performance, as amended by Resolution MEPC.117(52)). In Rev.1, it is clarified that if an inert gas system is fitted, the normal overpressure, in KPa, is to be taken as 5 KPa. Rev.1 makes the UI identical to MARPOL Annex I interpretation No. 47.

(27) UI GC 5 (Rev.1), GC 6 (Rev.1), GC 11 (Rev.1), GC 13 (Rev.1), GC 15 (New) & GC 16 (New)

IMO carried out the first full review of the IGC Code to reflect the latest technological size. advancements and increasing ship Amendments to the Code were adopted as resolution MSC.370 (93) at IMO MSC 93 and entered into force on 1st January 2016. IACS carried out a comprehensive review of related UIs and issued UIs GC 5 (Rev.1), GC 6 (Rev.1), GC 11 (Rev.1), GC 13 (Rev.1), GC 15 (New) and GC 16 (New) with a view to bringing in line with the revised IGC Code.

(28) UI MPC 127 (New)

Aim of the UI MPC127 is to interpret the phrase "The accuracy of the 15 ppm Bilge Alarms should be checked at IOPP Certificate renewal surveys according to the manufacturer's instructions." specified in paragraph 4.2.11 of Resolution MEPC.107(49). As per the UI, The validity of calibration certificate should be checked at IOPP annual/intermediate/renewal surveys. The accuracy of 15 ppm bilge alarms is to be checked by calibration and testing of the equipment conducted by a manufacturer or persons authorized by the manufacturer and should be done at intervals not exceeding five years or within the term specified in the manufacturer's instructions, whichever is shorter.

(29) UI SC276, SC277, SC278 (New)

IACS has developed 3 new UIs to clarify vague requirements for means of escape in machinery spaces on passenger ships (SOLAS II-2/13.4.1) and cargo ships (SOLAS II-2/13.4.2) as well as accommodation spaces, service spaces and control stations (SOLAS II-2/ 13.3.3.2 & 3). Vague expressions such as 'safe position', 'inclined ladders', 'internal dimensions of the protected enclosure', 'lowest open deck' etc. are clarified. The draft UIs were submitted to SDC2 and subsequently approved by MSC 95.

(30) UI SC275 (New)

UI SC275 provides the definition of the term 'suitable number of spare cylinders' in SOLAS II-2/15.2.2.6. 'A suitable number of spare cylinders' to be carried on board to replace those used for fire drills shall be at least one 'set of cylinders' for each mandatory breathing apparatus. 'Set of cylinders' means the number of cylinders which are required to operate the breathing apparatus.

(31) UI SC267 (Rev.1)

UI SC267 provides interpretations to the paragraphs in LSA Code, as amended by resolution MSC.320 (89). The UI is related to the components in a lifeboat which are to be of material that is corrosion resistant in the marine environment, release mechanism/interlock devices, and safety

design factor that is to be applied to hanging off and fall preventer arrangements of the release gear mechanism. In Rev.1 it was clarified that for operating cables covered with sheath and installed

inside the lifeboat, inner cables made of austenitic stainless steels 304 are acceptable without corrosion test.

ClassNK External Affairs Department is pleased to provide international trends promptly.

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