



All respectful ICS surveyors

With gratitude, respectfully,
According to authenticity & delicacy issuance of ICS's Certificates, attached guideline of issuance of 'Safety Equipment Certificate' is being sent hereby.

Obviously, preparation manual for all convention certificates can be found in Instruction For Convention Survey.

The document related to the above mentioned subject and also the supplementary attachments are accessible through the following address on ICS Network (ICS-WAN):

[\\server\ICS Organization\Convention and Legislation\Department\Publication\tech\2013\11](http://server\ICS Organization\Convention and Legislation\Department\Publication\tech\2013\11)

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کلیه بازرسان محترم ICS

با سلام و احترام

باتوجه به لزوم دقت و صحت گواهینامه های صادره از موسسه رده بندی ایرانیان، راهنمای صدور گواهینامه Safety Equipment حضورتان ارسال می گردد.

بدیهی است نسخه اصلی راهنمای صدور کلیه گواهینامه های قانونی در **Instruction For Convention Survey** قابل دسترس می باشد.

این بخشنامه به انضمام پیوست های تکمیلی آن در بخش CLD از شبکه داخلی موسسه با آدرس ذیل قابل دسترسی می باشد.

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ع. غلام ابوالفضل

سرپرست واحد کنوانسیون ها و مقررات دریایی
موسسه رده بندی ایرانیان

ترک دعوی: اگرچه در گردآوری کلیه راهنماهای فنی ارائه شده توسط موسسه رده بندی ایرانیان، تا حد ممکن تلاش در دقت و صحت محتوا صورت گرفته است، این موسسه متحمل مسئولیتی در قبال هرگونه اشتباهات، خسارت های احتمالی و جرائمی که ممکن است در ارتباط با بکار گیری مفاهیم و مطالب ارائه شده رخ دهد، نمی باشد.

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1. GENERAL:

The **International Convention for the Safety of Life at Sea (SOLAS)** is an international maritime safety treaty. It ensures that ships flagged by signatory States comply with minimum safety standards in construction, equipment and operation. The SOLAS Convention in its successive forms is generally regarded as the most important of all international treaties concerning the safety of merchant ship.

2. APPLICATION:

The safety equipment requirement of SOLAS applies to all ships engaged in international voyage but, SE certificate shall be issued for these ships of 500 gross tonnage and upwards.

3. SHIP'S PARTICULARS:

(Ref..to part **NO. 1** of Form **E** of **SE** Cert.)

3-1) "Name of ship" and "Distinctive number or letters" columns will be filled automatically.

3-2) "Gross tonnage" column to be filled with the Chap. 6 of part 1, Div.I of the Instruction for Convention Survey.

3-3) "Deadweight" column to be filled only for Tankers like oil tanker, chemical tanker and gas carrier.

3-4) When the ship has Exemption

certificate (issued by this class or flag state irrespectively) the column "That an Exemption Certificate has been issued." should be checked.

4. LIFE-SAVING APPLIANCES:

(Ref.to part **NO.2** of Form **E** of **SE** Cert.)

4-1) Total number of persons for which life-saving appliances are provided : (Ref.to item **NO.2** of Form **E** of **SE** Cert.)
Maximum number of allowable persons on board (refer to 7.1, Chap. 7 of part 2, Div.2 of the Instruction for Convention Survey.)

4-2) Total number of lifeboats :

(Ref.to item **NO.2** of Form **E** of **SE** Cert.)

Total number of lifeboats at each side

4-2.1) Total number of persons accommodated by them:

(Ref.to item **NO.2.1** of Form **E** of **SE** Cert.)

To be filled after confirming Cert. of lifeboat. But the Nos. of essential equipment for lifeboat is less than total number of persons accommodated by them, this column to be filled with the Nos. of essential equipment accordingly.

4-2.2) Number of totally enclosed lifeboats: (Reg. III/31 and LSA Code, section 4.6) to be filled with after confirming the ship's condition refer to 7.4.2, Chap. 7 of part 2, Div.2 of the Instruction for Convention Survey.

(Ref.to item **NO.2.2** of Form **E** of **SE** Cert.)

4-2.3) Number of lifeboats with a self-contained air support system: (Reg. III/31 and LSA Code, section 4.8)

(Ref.to item **NO.2.3** of Form **E** of **SE** Cert.)

Chemical tankers and gas carriers carrying cargoes emitting toxic vapors or gases shall carry lifeboats complying with the requirements of a self-contained air support system.

100% of lifeboats with a self-contained air support system on each side of the ship + 200% of life rafts (or 100% where those are easily transferable side to side) + a rescue boat,

OR

100% of free-fall lifeboats with a self-contained air support system + 200% of life rafts (The life rafts on at least one side of the ship shall be served by launching appliances) + a rescue boat.

4-2.4) Number of fire-protected lifeboats:

(Ref.to item **NO.2.4** of Form **E** of **SE Cert.**)

Oil tankers, chemical tankers and gas carriers carrying cargoes having a flash-point not exceeding 60°C (closed cup test) shall carry lifeboats complying with the requirements of fire protected lifeboat. (Reg. III/31 and LSA Code, section 4.9)

100% of fire protected lifeboats on each side of the ship + 200% of life rafts (or 100% where those are easily transferable side to side) + a rescue boat,

OR

100% of fire protected free-fall lifeboats + 200% of life rafts (The life rafts on at least one side of the ship shall be served by launching appliances) + a rescue boat.

NOTE: Cargo ships of less than 85m in length, other than oil tankers, chemical tankers and gas carriers, may comply with the following:

a) 200% of life rafts (if they are readily transferred), or 300% of life rafts (if they are not readily transferred) + one rescue boat.

b) In the event of any one survival craft being lost or rendered unserviceable, there shall be sufficient survival craft available for use on each side to accommodate the total numbers of persons on board.

c) If the rescue boat is also a totally enclosed lifeboat complying with the requirements of section 4.6 of LSA

Code, it may be included in the aggregate capacity in the above, provided that the total capacity available on either side of the ship is at least 150% of the total number of persons on board.

d) According to MSC.1/Circ.1285, such ships which are fitted with non-davit launched life rafts in the above should be provided with an embarkation ladder at each side of the ship.

4-3) Number of freefall lifeboats:

(Ref.to item **NO.2.6** of Form **E** of **SE Cert.**)

filled with number of freefall lifeboats.

4-3.1) Totally enclosed(Reg. III/31 and LSA Code, section 4.7)

(Ref.to item **NO.2.6.1** of Form **E** of **SE Cert.**)

4-3.2) Self-contained(Reg. III/31 and LSA Code, section 4.8)

(Ref.to item **NO.2.6.2** of Form **E** of **SE Cert.**)

4-3.3) Fire-protected(Reg. III/31 and LSA Code, section 4.9)

(Ref.to item **NO.2.6.3** of Form **E** of **SE Cert.**)

4-4) Number of lifeboats fitted with searchlights :

(Ref.to item **NO.3.1** of Form **E** of **SE Cert.**)

To be applied on or after 1983 SOLAS ships.

4-5) Number of rescue boats:

(Ref.to item **NO.4** of Form **E** of **SE Cert.**)

Minimum one set of rescue boat must be applied on or after 1983 SOLAS ships.

4-5.1) Number of boats which are included in the total lifeboats shown above is filled if the rescue boat is also a totally enclosed lifeboat complying with the requirements of section 4.6 of LSA Code. (Free-fall lifeboat is not accepted as a rescue boat.)

(Ref.to item **NO.4.1** of Form **E** of **SE Cert.**)

4-6) Life raft:

(Ref.to item **NO.5** of Form **E** of **SE Cert.**)

4-6.1) Those for which approved launching appliances are required:

(Ref.to item **NO.5.1** of Form **E** of **SE Cert.**)

Minimum one set of Life raft must be applied if one free-fall lifeboat was provided.

4-6.2) Number of life rafts:

(Ref.to item **NO.5.1.1** of Form **E** of **SE Cert.**)

Number of life rafts for which approved launching appliances are installed.

4-6.3) Number of persons accommodated by them:

(Ref.to item **NO.5.1.2** of Form **E** of **SE Cert.**)

To be filled after confirming Cert. of life raft. But the Nos. of essential equipment for life raft is less than total number of persons accommodated by them, this column to be filled with the Nos. of essential equipment accordingly.

4-6.4) Where the horizontal distance from the extreme end of the stem or stern of the ship to the nearest end of the closest survival craft is more than **100 m**, an additional life raft capable of accommodating not less than 6 persons shall be stowed as far forward or aft.

4-7) Lifebuoy:

4-7.1) Number of lifebuoys :

(Ref.to item **NO.6** of Form **E** of **SE Cert.**)

to be filled with number of lifebuoys provided on board refer to 7.3.2, Chap. 7 of part 2, Div.2 of the Instruction for Convention Survey.

4-8) Life jackets:

(Ref.to item **NO.7** of Form **E** of **SE Cert.**)

4-8.1) Cargo ships constructed **on** or **after** 1 July 1986 ('83 SOLAS) shall carry lifejackets as follows:

- 100% of the maximum number of persons.
- A sufficient number for persons on watch.
- In addition, at least 2 lifejackets for persons of life raft located at far forward or aft of the ship, as applicable.

NOTE: At least persons on watch is more than 4 (Nav. bridge 2, Engine room 2), lifejackets corresponding to the number shall be provided.

4-8.2) Cargo ships constructed **before** 1st of July 1986 ('74 SOLAS). 100% of the maximum number of persons.

NOTE: But it is applied retroactively to carry lifejackets of the same quantity as above.

cargo ships constructed **on** or **after** 1 July 1986 ('83 SOLAS), because life raft located at far forward or aft of the ship is applicable to existing ships and the provision of additional life rafts need no structural alteration of the ship.

4-9) immersion suits:

(Ref.to item **NO.8** of Form **E** of **SE Cert.**)

Total number : (Ref.to item **NO.8.1** of Form **E** of **SE Cert.**)

- 100% of the maximum number of persons.
- In addition, a sufficient number for persons on watch and working stations which are located remotely from the place or places where immersion suits are normally towed.

for persons on watch : Nav. bridge: **2** and Engine room: **2**.

In case of different quantity between above quantity and those required by the Administration, the quantity required by the Administration should be provided.

4-10) Radio installations used in life-saving appliances:

(Ref.to item **NO.9** of Form **E** of **SE Cert.**)

4-10.1): Radar search and rescue transponder(SART) :

- At least **one** radar transponder shall be carried **on each side** of every passenger ship and of every cargo ship of **500 GT and upwards**.

(Ref.to item **NO.9.1** of Form **E** of **SE Cert.**)

- At least one radar transponder shall be carried on every cargo ship of 300 GT and upwards but less than 500 GT.

- The equipment may be substituted by approved AIS-SART from 1 January 2010. (SOLAS Reg.III/6.2.2) - Which one of radar transponder or AIS-SART above from 1 January 2010 (**including high speed craft**).

4-10.2) AIS search and rescue transmitters(AIS-SART):

- The requirement for SART refers to 3.2.13, Chap. 3 of part 3, Div.2.

4-10.3) two-way VHF radiotelephone apparatus:

(Ref.to item **NO.9.2** of Form **E** of **SE Cert.**)

- At least three two-way VHF radiotelephone units shall be provided on every passenger ship and on every cargo ship of **500 GT and upwards**.

- At least two two-way VHF radiotelephone units shall be provided on every cargo ship of **300 GT and upwards** but less than **500 GT**.

5. NAVIGATIONAL SYSTEMS:

(Ref.to part **NO.3** of Form **E** of **SE Cert.**)

This part shall apply to ships of which keel was laid on or after 1 July 2002.

NOTE: EX stands for Existing ships

In this guidance, existing ships/1974

SOLAS ships/1983 SOLAS ships/2000 SOLAS ships means as follows:

* Existing ships: ships constructed before 1 July 2002.

* 1974 SOLAS ships: ships constructed on or after 25 May 1980.

* 1983 SOLAS ships: ships constructed on or after 1 July 1986.

* 2000 SOLAS ships: ships constructed on or after 1 July 2002.

5-1) Standard Magnetic Compass (Ex):

(Ref.to item **NO.1.1** of Form **E** of **SE Cert.**)

To be applied all ships irrespective of size.

5-2) Spare Magnetic Compass (Ex):

(Ref.to item **NO.1.2** of Form **E** of **SE Cert.**)

To be applied all ships of 150 gross tonnages and upwards.

* For 2000 SOLAS ships, the relevant paragraph in the equipment record of SE certificate should be marked with the alternative means for a ship when an equipment is exempted.

5-3) Gyro Compass (Ex):

(Ref.to item **NO.1.3** of Form **E** of **SE Cert.**)

To be applied ships of 500 gross tonnages and upwards for 1983 SOLAS ships. But ships constructed before 1 July 1986, this to be applied ships of 1,600 gross tonnages and upwards.

5-4) Gyro Compass heading repeater (Ex):

(Ref.to item **NO.1.4** of Form **E** of **SE Cert.**)

5-4.1) To be applied ships of 1,600 gross tonnages and upwards for 1983 SOLAS ships.

5-4.2) To be applied ships of 500 gross tonnages and upwards for 2000 SOLAS ships.

5-5) Gyro Compass bearing repeater (Ex):

(Ref.to item **NO.1.5** of Form **E** of **SE** Cert.)

5-5.1) To be applied ships of 1,600 gross tonnages and upwards for 1983 SOLAS ships.

5-5.2) To be applied ships of 500 gross tonnages and upwards for 2000 SOLAS ships.

5-5.3) This is to supply a ship's heading information visually at the emergency steering position.

NOTE: Where the following devices are provided in the emergency steering gear room, the "**Fitted**" is to be marked in the column of actual provision of the paragraph 5-3:

- Gyrocompass repeaters
 - Gyrocompass heading digital indicators
 - Other means to provide the Gyrocompass Heading visually
- In case where ships constructed before 1 July 2002 have been provided with a magnetic compass to supply visual compass readings at the emergency steering position, it may be marked as "**Fitted**".

5-6) Heading or track control system :

(Ref.to item **NO.1.6** of Form **E** of **SE** Cert.)

To be applied ships of 10,000 gross tonnages and upwards for 2000 SOLAS ships.

5-7) Pelorus or compass bearing device (Ex):

(Ref.to item **NO.1.7** of Form **E** of **SE** Cert.)

To be applied all ships irrespective of size.

5-7.1) Means of correcting heading and bearing: These means, such as deviation curves or tables, are to correct heading

or bearings to true at all times. (Ref.to item **NO.1.8** of Form **E** of **SE** Cert.)

5-8) Transmitting heading device(THD) (Ex) :

(Ref.to item **NO.1.9** of Form **E** of **SE** Cert.)

• To be applied all ships of 300 GT and upward but less than 500 GT for 2000 SOLAS ships.

• In case where a ship of 300 GT and over but less than 500 GT, with which a gyrocompass is not mandatorily required to be equipped, is provided with a Magnetic compass, the THD is to transmit heading information for input to Radars, AISs and VDRs.

5-9) Electronic Chart Display Information System:

5-9.1) Application and Requirements to be referred to 2.7, Chap. 2 of part 2, Div.2 of the Instruction for Convention Survey.

5-10) Back-up arrangement for ECDIS:

(Ref.to item **NO.2.2** of Form **E** of **SE** Cert.)

Back-up arrangements shall be provided if ECDIS is provided to meet the chart carriage requirements of nautical charts. Paper nautical charts are equivalent to this.

5-11) Nautical publication (Ex):

(Ref.to item **NO.2.3**of Form **E** of **SE** Cert.)

To be applied ships of 150 gross tonnages and upwards.

5-12) Back-up arrangement for electronic nautical publication :

(Ref.to item **NO.2.4** of Form **E** of **SE** Cert.)

Back-up arrangements shall be provided if electronic nautical publication is provided to meet the nautical publication requirements. Paper nautical publication is equivalent to this.

5-13) Receiver for a global navigation satellite system / terrestrial radio navigation system(Ex) :

(Ref.to item **NO.3.1** of Form **E** of **SE** Cert.)

To be applied all ships. (Also to be applied 1974 SOLAS ships and 1983 SOLAS ships.)

5-14) 9 GHz Radar (3GHz / 9GHz) (Ex):

(Ref.to item **NO.3.2** of Form **E** of **SE** Cert.)

To be applied ships of 300 gross tonnages and upwards...

5-15) Second Radar(3GHz) (Ex):

(Ref.to item **NO.3.3** of Form **E** of **SE** Cert.)

- To be applied ships of 3,000 gross tonnages and upwards for 2000 SOLAS ships.

- To be applied ships of 10,000 gross tonnages and upwards except for 2000 SOLAS ships.

5-16) Automatic Radar Plotting Aid (ARPA):

(Ref.to item **NO.3.4** of Form **E** of **SE** Cert.)

(to be connected to a device to indicate speed and distance through the water)

5-16.1) To be applied ships of 10,000 gross tonnage and upwards constructed on or after 1 Sep. 1984.

5-16.2) To be applied tankers of 10,000 gross tonnage and upwards constructed before 1 Sep. 1984.

5-16.3) To be applied ships of 15,000 gross tonnage and upwards constructed before 1 Sep. 1984, except tankers.

5-17) Automatic Tracking Aid / Second automatic tracking aid : (ATA)

(Ref.to item **NO.3.5** of Form **E** of **SE** Cert.)

5-17.1) When constructed on or after 1

July 2002, a ship of 500 GT and over shall be provided with an ATA, a ship of 3000 GT and over shall be provided with two ATAs and, in case where a ship's gross tonnage is 10,000 tons and over, one of two ATAs should be an ARPA.

5-17.2) Therefore, where a ship of 10,000 GT and over constructed on or after 1 July 2002 are equipped with two ARPAs, the both paragraph 3.4 and 3.5 on certificate for ARPA and 1st ATA shall be marked as "Fitted" and "ARPA".

5-17.3) However, even though a existing ship constructed before 1 July 2002 has been provided with two ARPAs, the paragraph 3.4 on certificate only should be marked as "Fitted". (ATA to be applied only 2000 SOLAS ships.)

5-18) Electronic plotting aid:

(Ref.to item **NO.3.7** of Form **E** of **SE** Cert.)

To be applied all ships of 300 GT and upward but less than 500 GT. And not to be applied ships fitted with ARPA or ATA.

5-19) Automatic Indication System (AIS):

(Ref.to item **NO.4.1** of Form **E** of **SE** Cert.)

To be applied all ships of 300 gross Tonnage and upwards including 1974 SOLAS ships and 1983 SOLAS ships.

5-20) Long Range Identification Tracking System (LRIT):

(Ref.to item **NO.4.2** of Form **E** of **SE** Cert.)

5-20.1): To be applied all passenger ships including high-speed passenger crafts, cargo ships including high-speed cargo crafts of 300 gross tonnage and upwards, and mobile offshore drilling units. However ships, irrespective of the date of construction, fitted with an automatic identification system (AIS) and operated exclusively within sea area A1, shall not be required to comply with the provisions of this regulation.

5-21) Voyage Data Recorder (VDR)(EX):

(Ref.to item NO.5.1 of Form E of SE Cert.)

To be applied all passenger ships and cargo ships of 3,000 gross tonnage and upwards constructed on or after 1 July 2002 & entered into force on 1 July 2002.

5-22) Simplified voyage data recorder(S-VDR) (Ex):

(Ref.to item NO.5.2 of Form E of SE Cert.)

5-22.1) To be applied cargo ships of 3,000 gross tonnages and upwards instead of VDR. The **S-VDR** entered into force on 1 July 2006.

5-22.2) The S-VDR is not required to store the same level of detailed data as a standard VDR, but nonetheless should maintain a store, in a secure and retrievable form, of information concerning the position, movement, physical status, command and control of a vessel over the period leading up to and following an incident. The phase-in is as follows:

To assist in casualty investigations, **cargo ships**, when engaged on international voyages, shall be fitted with a VDR which may be a simplified voyage data recorder (S VDR) as follows:

- in the case of cargo ships of 20,000 gross tonnage and upwards constructed before 1 July 2002, at the first scheduled dry-docking after 1 July 2006 but not later than 1 July 2009;
- in the case of cargo ships of 3,000 gross tonnage and upwards but less than 20,000 gross tonnage constructed before 1 July 2002, at the first scheduled dry-docking after 1 July 2007 but not later than 1 July 2010; and
- Administrations may exempt cargo ships from the application of the requirements when such

ships will be taken permanently out of service within two years after the implementation date specified above.

5-23) Speed and distance measuring device(through the water) (Ex)/ Speed and distance measuring device (over the ground in the forward and athwart ship direction) (Ex) :

(Ref.to item NO.6.1, 6.2 of Form E of SE Cert.)

5-23.1) To be applied ships of 500 GT and upward engaged on the international voyages constructed on or after 1 Sep. 1984.

5-23.2) For ships fitted with ARPA, the device shall indicate speed and distance through the water.

5-23.3) GPS shall not be the substitute.

5-23.4) To be applied ships of 300 GT and upward engaged on the international voyages constructed on or after 1 July 2002. - speed and distance measuring device(through the water) to be applied.

5-23.5) To be applied ships of 50,000 GT and upward engaged on the international voyages constructed on or after 1 July 2002. - speed and distance measuring device(through the water & over the ground in the forward and athwart ship direction) to be applied. - The both paragraphs **6.1** & **6.2** on certificate shall be marked as "**Fitted**".

5-24) Echo sounding device :

(Ref.to item NO.6.3 of Form E of SE Cert.)

5-24.1) To be applied ships of 1,600 GT and upward constructed on or before 25 May 1980.

5-24.2) To be applied ships of 500 GT and upward constructed after 25 May 1980 and before 1 July 2002.

5-24.3) To be applied ships of 300 GT and upward constructed on or after 1 July 2002.

5-25) Rudder, propeller, thrust, pitch and operational mode indicator(Ex):

(Ref.to item **NO.7.1** of Form **E** of **SE** Cert.)

Thrust to be marked ships installed thruster (bow or stern thruster).
Pitch and operational mode indicator to be marked ships installed CPP (Controllable Pitch Propeller).

5-26) Rate of turn indicator(Ex) :

(Ref.to item **NO.7.2** of Form **E** of **SE** Cert.)

To be applied ships of 50,000 GT and upward for 2000 SOLAS ships and applied ships of 100,000 GT and upward for existing ships.

5-27) Sound reception system :

(Ref.to item **NO.8** of Form **E** of **SE** Cert.)

5-27.1) To be applied all ships constructed on or after 1 July 2002.

5-27.2) When the ship's bridge is totally enclosed(**without opened wing bridge**), a sound reception system, or other means, to enable the officer in charge of the navigational watch to hear sound signals and determine their direction shall be provided.

5-28) Telephone to emergency steering position(Ex):

(Ref.to item **NO.9**of Form **E** of **SE** Cert.)

To be applied all ships.

5-29) Daylight signaling lamp(Ex):

(Ref.to item **NO.10** of Form **E** of **SE** Cert.)

To be applied all ships of 150 GT and upward.

5-30) Radar reflector(Ex):

(Ref.to item **NO.11** of Form **E** of **SE** Cert.)

To be applied all ships of less than 150 GT.

5-31) International Code of Signals (Ex):

(Ref.to item **NO.12** of Form **E** of **SE** Cert.)

To be applied all ships.

5-32) IAMSAR Manual Volume III(Ex):

(Ref.to item **NO.13** of Form **E** of **SE** Cert.)

To be applied all ships.

5-33) BNWAS:

(Ref.to item **NO.14** of Form **E** of **SE** Cert.)

which explained on **PMO** circular (no.:92/33465) dated on 10.12.2013 (1392/9/19)

