

TO : 所有船東及驗船師  
FROM : CR TAIPEI  
SUBJECT : 海上人命安全國際公約第 II-1 章規則 3-13 之起重設備及活動零件新規說明

- 一、因應中華民國於 2025 年 12 月公告採用旨述規定並提供船旗國指引，以及國際海事組織(IMO)分別於 2026 年 1 月 8 日及 1 月 13 日發布勘誤文件，整合前述最新狀況，並就近期執行此新規之注意事項提供補充說明。本通報取代 2025 年 9 月 5 日發布之 CR-2025-010(R)通報。
- 二、依據海上人命安全國際公約(SOLAS)修正案([MSC.532\(107\)](#))，為防止機械故障造成人員傷亡事故和船舶損壞，自 2026 年 1 月 1 日起，於第 II-1 章規則 3-13 新增起重設備(lifting appliance)及活動零件(loose gear)相關規定。

**(一) 上述規定之起重設備，適用/不適用情形說明如下表**

適用要求之起重設備*	不適用要求之起重設備
1. 用於貨物裝載、轉移或卸載之起重設備； 2. 用於升降艙口蓋或可移動艙壁之起重設備； 3. 用作機艙起重設備； 4. 用作庫房起重設備； 5. 用作軟管吊裝起重設備； 6. 用於吊運接駁艇(tender boats)下水及回收起重設備； 7. 用作人員吊運起重設備。	1. 海上移動式鑽探裝置(MODU)之起重設備； 2. 離岸施工船(如管路/電纜鋪設/維修船、離岸安裝船(包含用於拆卸工作之船舶))，其起重設備符合之標準經主管機關接受**者； 3. 用於啟閉艙口蓋的一體化機械設備(integrated mechanical equipment for opening and closing hold hatch covers)； 4. 符合國際救生設備章程(LSA Code)的救生下水設備。
*除非船旗國主管機關另有規定，決定在何種程度上可不適用本規定，否則對於安全工作負荷(Safe Working Load, SWL)未滿 1,000 公斤的起重設備仍適用本規定。(補充： <a href="#">中華民國籍</a> (如附件 1)及巴拿馬籍船舶，不強制 SWL 未滿 1,000 公斤之起重設備適用 SOLAS 第 II-1 章規則 3-13 規定。) **離岸施工船上之起重設備若已具備其專屬之技術標準或證明文件，且該標準或文件獲主管機關接受，則無須重複符合 SOLAS 第 II-1 章規則 3-13 規定。	

**(二) 2026 年 1 月 1 日以後新安裝上船\*的起重設備及活動零件規定說明如下**

- (1) 設計、建造和安裝應符合主管機關或其接受之認可組織(RO)的要求。故在首次登載使用前，應依本中心之起重設備構造與檢驗規範(以下簡稱為 CR 規範)，提送相關圖說與計算書供審查。(SOLAS

II-1/3-13.2.1.1 及 MSC.1/Circ.1663 準則及 IMO 後續勘誤(以下簡稱為「準則」, 如附件 2 及附件 3)第 3.1 條、第 3.3 條及第 4.1 條)

\*2026 年 1 月 1 日以後新安裝上船之設備(SOLAS II-1/2.33)係指：

- (1) 對於 2026 年 1 月 1 日以後安龍或處於類似建造階段之船舶, 係指船上安裝適用上表之所有起重設備。
- (2) 對於 2026 年 1 月 1 日前安龍或處於類似建造階段之所有船舶, 係指新購/換裝起重設備之合約交付日期在 2026 年 1 月 1 日以後者; 或在無合約情況下, 實際交付日期在 2026 年 1 月 1 日以後者。
- (2) 首次登載使用前, 以及經重大修理、改裝或換裝後應執行負荷試驗 (load test) 和 徹底查驗 (thorough examination)。(SOLAS II-1/3-13.2.1.2 及準則第 3.2 條)
- (3) 於完成起重設備負荷試驗及活動零件保證試驗(proof test)和徹底查驗後, 由適格人員(本中心驗船師)簽發試驗及徹底查驗證書(CR Form No.GC17/GC17U/GC18/GC18LR/GC19/GC20), 並附於船舶起重設備及貨物裝卸設備登記簿(Register of Ship's Lifting Appliances and Cargo Handling Gear, 以下簡稱為「登記簿」)(CR Form No. GC161)內。(準則第 3.2.3.2 條、第 3.3.4 條、第 4.3.2 條及第 4.7.1.2 條)

補充說明：

- (1) 適格人員係指具備履行 MSC.1/Circ.1663 準則規定之職責所需的知識和經驗並為主管機關所接受之人員。依據中華民國 114 年 12 月 1 日交航(一)字第 11498003701 號(如附件 1), 中華民國籍船舶, 執行徹底查驗及負荷試驗檢查之**適格人員**係指：本中心驗船師。
- (2) 經完成試驗且結果滿意後, 本中心驗船師將填寫並簽發登記簿(CR Form No. GC161), 並附上相關證書。

### **(三) 2026 年 1 月 1 日前已安裝\*上船的現有起重設備及活動零件規定說明如下**

- (1) 起重設備最晚應在 2026 年 1 月 1 日以後首次「貨船安全構造證書」、「貨船安全證書」、「客船安全證書」換證檢驗前, 執行負荷試驗和徹底查驗, 以完成首次登載。(SOLAS II-1/3-13.2.4)
- (2) 除上述(1)規定外, 2026 年 1 月 1 日起, 適用 SOLAS II-1/3-13 規定之起重設備, 船上應備有起重設備之維護保養手冊及操作手冊。(準則第 3.5.2 條及第 3.6.2 條)
- (3) 若船上現有起重設備在 2026 年 1 月 1 日前已具備主管機關接受標準之有效證明文件(如依據國際勞工組織(ILO) No. 152 或 CR 規範核發之相關證明文件等), 可視為符合上述(1)所述負荷試驗及徹底查驗之要求。(準則第 3.3.3 條)

補充說明：

- (1) 船上現行所使用之登記簿仍可續用, 直至原登記簿使用完畢再換發新版登記簿。
- (2) 若船上現有起重設備在 2026 年 1 月 1 日前已具備主管機關接受標準之有效證明文件, 其檢驗週期可維持原週期, 無須強制將其調整至與「貨船安全構造證書」、「貨船安全證書」、「客船安全證書」檢驗週期一致。但若船東欲將檢驗週期調整至與「貨船安全構造證書」、「貨船安全證書」、「客船安全證書」檢驗週期一致亦可。
- (4) 若船上現有起重設備未具備上述(3)所述證明文件, 則可依據 MSC.1/Circ.1696 通告(如附件 4)規定執行, 即由 SOLAS 第 IX 章規則 1 定義之公司(Company)依據以下方式之一指定 SWL 並經主管機

關滿意，再依據準則第 3.2.1.5 條表 1，由適格人員執行負荷試驗及徹底查驗檢查，在適格人員確認後簽發「事實陳述書」(Factual Statement)(CR Form No. GC333)並附於登記簿內。(SOLAS II-1/3-13.2.4 及 MSC.1/Circ.1696)：

- [a] 基於 SWL 證明文件(如操作手冊、起重設備圖說或製造商提供之任何文件等)(SOLAS II-1/3-13.2.3 及 3-13.2.4)；或
  - [b] 若起重設備之 SWL 證明文件、設計資訊不可得時(例如：製造商已不存在)，由公司指定 SWL 並提供聲明文件。(準則第 3.2.1.6 條)
- (5) 現有起重設備之活動零件，最晚在 2026 年 1 月 1 日以後首次「貨船安全構造證書」、「貨船安全證書」、「客船安全證書」換證檢驗前，應具備「保證試驗證明文件」，如無法證明活動零件已進行保證試驗及提供證明文件，以致無法確認其是否符合 SOLAS II-1/3-13.2.4 規定時，應將未認證之活動零件更換為符合 SOLAS 規定之活動零件。(準則第 4.2.1 條)

\*已安裝係指通過銲接或螺栓方式固定於船舶結構之上，或永久性地沿著固定軌道運行之起重設備。

補充說明：以下文件原則上得作為「保證試驗證明文件」：

- (1) 本中心簽發之活動零件試驗及徹底查驗證書(CR Form No. GC19)；
- (2) 其他船級協會簽發之活動零件試驗及徹底查驗證書；
- (3) 船旗國主管機關簽發之證書；
- (4) 船旗國主管機關認可之適格人員簽發之證書；或
- (5) 製造商出具之證書等。

#### **(四) 適用於 SOLAS II-1/3-13 規則之起重設備及活動零件後續維護、操作及檢驗之一般性要求**

- (1) 起重設備須永久標註 SWL，且在本中心核發的起重設備之試驗及徹底查驗證書(CR Form No.GC17/GC17U/GC18/GC18LR)，或上述(三)、(4)之「事實陳述書」(CR Form No. GC333)中載明 SWL 資訊。(SOLAS II-1/3-13.2.3 及 3-13.2.4)
- (2) 活動零件應標記其識別編號、SWL 以及安全使用所需的相關資訊。若活動零件未具備足夠空間標記識別，則上述資訊應包含在試驗及徹底查驗證書(CR Form No.GC19)中，或以其他適當的方式呈現即可。(準則第 4.4 條)
- (3) 起重設備應至少每 5 年及經重大修理、改裝或換裝後重新執行負荷試驗。(準則第 3.2.1.2 條及第 3.2.1.4 條)
- (4) 活動零件設計和製造應按照主管機關或 RO 規範的要求執行，並具備保證試驗證明文件。此外，若後續有進行重大修理、改裝或換裝後應重新執行保證試驗。(準則第 4.1 條及第 4.2.1 條)

- (5) 完成首次登載後之起重設備及活動零件後續應於「每年度」執行徹底查驗，以及依前述(3)及(4)相關規定於「完成負荷試驗或保證試驗後」尚須執行徹底查驗。(準則第 3.2.2.1 條及第 4.2.2.1 條)
- (6) 若徹底查驗未於「貨船安全構造證書」、「貨船安全證書」、「客船安全證書」之換證/年度檢驗時一併執行，則在執行前述檢驗時應查證船上現有起重設備及活動零件先前已完成徹底查驗。(準則第 3.2.2.2 條及第 4.2.2.2 條)
- (7) 2026 年 1 月 1 日起，適用 SOLAS II-1/3-13 之起重設備及活動零件，應注意事項如下：
- [a] 船上應備有起重設備之維護保養手冊及操作手冊。(準則第 3.5.2 條及第 3.6.2 條)；前述手冊中應包含之內容詳如準則第 3.5.2.2 條及第 3.6.2.2 條所述。
  - [b] 起重設備及活動零件之維護、檢查、操作測試週期，應符合製造商的建議、工業標準/準則，或主管機關可接受之 RO 的要求及建議，並考慮到船舶和起重設備的操作狀況等因素。(準則第 3.5.1.1 條及第 4.6.1 條)
  - [c] 起重設備、相關零組件及活動零件的例行檢查和維護紀錄，應保存於船上。(準則第 3.5.3.1 條及第 4.7.2.1 條)

補充說明：

- (1) 維護指負責人員為確保起重設備或活動零件保持良好工作狀態以繼續安全使用，所進行的任何活動。
- (2) 檢查指由負責人員確認起重設備或活動零件是否處於良好工作狀態以繼續安全使用，所進行的評估。
- (3) 負責人員(Responsible person)指由船長或依 SOLAS 第 IX 章規則 1 定義之公司(如適用)所指定的人員，其具備履行 MSC.1/Circ.1663 準則規定的職責所需之知識和經驗。

#### **(五) 起重設備及活動零件無法使用時**

當起重設備及活動零件的操作不安全或不符合主管機關的適用要求時，船長應參考準則第 5 條管制措施採取對應作為以降低航行風險。若已採取前述管制措施確保無法正常工作之起重設備及活動零件不影響船舶操作與航程安全，則不應被視為船舶不適航或留置船舶之理由。(SOLAS II-1/3-13.4 及準則第 3.2.2.3 條、第 3.5.1.6 條、第 4.2.2.3 條、第 4.6.6 條及第 5 條)

黃建樺

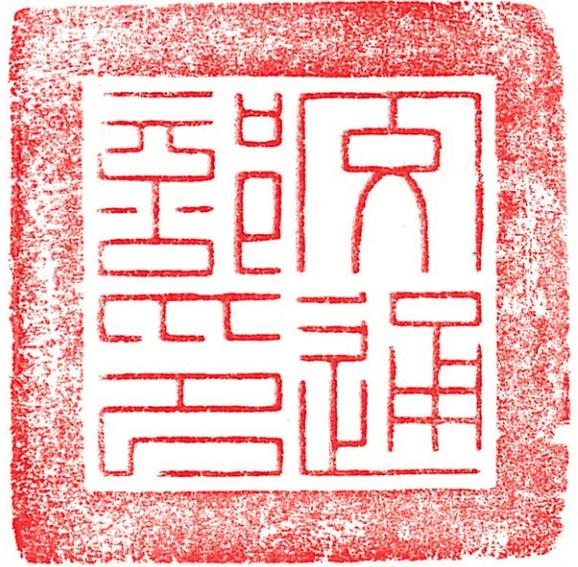
總驗船師  
Chief Surveyor

黃建樺  
Chien-Hua Huang

檔號：  
保存年限：

## 交通部 公告

發文日期：中華民國 114年12月1日  
發文字號：交航(一)字第 11498003701 號  
附件：如文



主旨：採用國際海事組織(IMO)所屬海事安全委員會(MSC)第106次及第107次會議所採納MSC.520(106)、MSC.532(107)及MSC.534(107)決議之「海上人命安全國際公約(SOLAS)」修正案，修正相關證書及其設備紀錄，並自中華民國一百十五年一月一日生效。

依據：船舶法第一百零一條。

公告事項：

- 一、旨揭公約係海上人命安全相關規範，為利國籍船舶有所依循，爰採用國際海事組織(IMO)所屬海事安全委員會(MSC)第106次及第107次會議所採納MSC.520(106)、MSC.532(107)及MSC.534(107)決議之「海上人命安全國際公約(SOLAS)」修正案，並修正「中華民國國際航線客船安全證書及其設備紀錄」、「貨船安全證書及其設備紀錄」及「貨船安全設備證

書及其設備紀錄」，旨揭案件列表如附件。

二、本案相關管理措施如下：

- (一) 依據起重設備準則(MSC.1/Circ.1663)，完成首次登載後之起重設備及活動零件，後續應每年執行徹底查驗(Thorough examination)，並每5年重新執行負荷試驗(Load test)。
- (二) 徹底查驗及負荷試驗應由適格人員(Competent person)執行，適格人員係：財團法人驗船中心(CR)驗船師。
- (三) SOLAS第II-1章規則3-13所納管之7大種類起重設備(用於貨物裝載、轉移或卸載；用於升降艙口蓋或可移動艙壁；用作機艙起重設備；用作庫房起重設備；用作軟管吊裝起重設備；用於吊運接駁艇(tender boats)下水及回收起重設備；用作人員吊運起重設備)，若安全工作負荷(SWL)未滿1,000公斤，原則不強制適用SOLAS第II-1章規則3-13規定，船東得自願符合並考量納入安全管理系統(SMS)控管。

部長陳世凱



INTERNATIONAL  
MARITIME  
ORGANIZATION

**E**

4 ALBERT EMBANKMENT  
LONDON SE1 7SR  
Telephone: +44 (0)20 7735 7611 Fax: +44 (0)20 7587 3210

MSC.1/Circ.1663/Corr.1  
8 January 2026

## GUIDELINES FOR LIFTING APPLIANCES

### Corrigendum

In table 2, in the "Test load, in tonnes" column, in the second row, the value "0.993" is replaced by "0.933", as follows:

**Table 2: Loose gear minimum test loads**

Item	Test load, in tonnes
Single sheave block	4 x SWL
Multi-sheave blocks and hook blocks: SWL ≤ 25 t 25 t < SWL ≤ 160 t 160 t < SWL	2 x SWL (0.933 x SWL) + 27 1.1 x SWL
Hooks, shackles, chains, rings, swivels, etc.: SWL ≤ 25 t 25 t < SWL	2 x SWL (1.22 x SWL) + 20
Lifting beams, spreaders, frames, grabs: SWL ≤ 10 t 10 t < SWL ≤ 160 t 160 t < SWL	2 x SWL (1.04 x SWL) + 9.6 1.1 x SWL
<p>Note 1. Sheave blocks that are permanently attached to, or are integral with the hook, are called hook blocks. Hook blocks are to be tested with the load for multi-sheave blocks. The hook of the hook block is to be tested with the loads for hooks.</p> <p>Note 2. The SWL for a single sheave block, including single sheave blocks with becketts, is to be taken as one half of the resultant load on the head fitting.</p> <p>Note 3. The SWL of a multi-sheave block is to be taken as the resultant load on the head fitting.</p>	

---

4 ALBERT EMBANKMENT  
LONDON SE1 7SR  
Telephone: +44 (0)20 7735 7611 Fax: +44 (0)20 7587 3210

MSC.1/Circ.1663  
13 January 2026\*

### **GUIDELINES FOR LIFTING APPLIANCES\***

1 The Maritime Safety Committee, at its 107th session (31 May to 9 June 2023), having considered a proposal by the Sub-Committee on Ship Systems and Equipment (SSE), at its eighth session, with a view to ensuring a uniform approach towards the application of the provisions of SOLAS regulation II-1/3-13, adopted by resolution MSC.532(107), approved the *Guidelines for lifting appliances*, as set out in the annex.

2 Member States are invited to use the annexed Guidelines when applying SOLAS regulation II-1/3-13 and to bring it to the attention of ship designers, shipyards, shipowners, equipment manufacturers, other organizations and parties concerned.

\*\*\*

---

\* The circular was initially issued on 28 June 2023, and reissued, incorporating the correction contained in MSC.1/Circ.1633/Corr.1.



## ANNEX

### GUIDELINES FOR LIFTING APPLIANCES

#### 1 Application

These Guidelines support the application of SOLAS regulation II-1/3-13 for lifting appliances and loose gear used in association with lifting appliances.

#### 2 Definitions

For the purpose of these Guidelines, the following definitions apply:

- .1 *Competent person* means a person possessing the knowledge and experience required for the performance of duties specified in these Guidelines and acceptable as such to the Administration.
- .2 *Inspection* means an assessment carried out by a responsible person to ascertain if the lifting appliance or loose gear is in good working condition for continued safe use.
- .3 *Responsible person* means a person appointed by the master or company as defined in SOLAS regulation IX/1, as appropriate, possessing the knowledge and experience required for the performance of duties specified in these Guidelines.
- .4 *Thorough examination* means a detailed assessment carried out by a competent person in order to determine whether or not the lifting appliance or loose gear is in compliance with the applicable requirements of the Administration.
- .5 *Certified* means that the lifting appliance or loose gear has been verified and documented as compliant to the satisfaction of the Administration or recognized organization acting on its behalf.
- .6 *Maintenance* means any activity carried out by a responsible person to keep the lifting appliance or loose gear in good working condition for continued safe use.
- .7 *Operational testing* means a test carried out by a responsible person to verify the correct functioning of a component or operation of the lifting appliance and/or associated loose gear.
- .8 *Load test* means a test in excess of the SWL, carried out in the presence of a competent person in order to check the structural integrity of the lifting appliance and its attachment to and adequacy of its supporting structure.
- .9 *Safe working load (SWL)* is the maximum static load at a specified radius which a lifting appliance or item of loose gear is certified to lift for a specified operating condition.
- .10 *Certificate of test and thorough examination* means a certificate issued by a competent person upon satisfactory completion of the test and thorough examination of the lifting appliance and/or loose gear.

### 3 Lifting appliances

#### 3.1 Design, construction and installation

As required by SOLAS regulation II-1/3-13.2.1.1, lifting appliances installed on or after 1 January 2026 should be designed, constructed and installed in accordance with the requirements of a classification society which is recognized by the Administration in accordance with the provisions of regulation XI-1/1 or standards acceptable to the Administration which provide an equivalent level of safety.

#### 3.2 Load testing and thorough examination

##### 3.2.1 Load test

3.2.1.1 Lifting appliances to which SOLAS regulation II-1/3-13.2.1 applies should be load tested to the satisfaction of the Administration after installation and before being taken into use for the first time and after repairs, modifications or alterations of a major character.

3.2.1.2 Lifting appliances to which SOLAS regulation 3-13.2.4 applies should be load tested to the satisfaction of the Administration no later than the date of the first renewal survey on or after 1 January 2026 or after repairs, modifications or alterations of a major character.

3.2.1.3 *Repairs, modifications or alterations of a major character* are those which:

- .1 change the safe working load of the lifting appliance; or
- .2 affect the strength, stability or service life of the lifting appliance; or
- .3 affect the primary load bearing structure of the lifting appliance; or
- .4 modify the functionality of the lifting appliance or any part thereof which may affect its strength or safety or structural integrity.

3.2.1.4 Lifting appliances to which SOLAS regulations II-1/3-13.2.1 and 3-13.2.4 apply should be retested at least once in every five years.

3.2.1.5 For load testing of lifting appliances intended for use while the ship is in port or sheltered waters, the test load, as set out in table 1 below, should be established using the SWL. For lifting appliances intended for open-sea operations, the test loads should be to the satisfaction of the Administration or a classification society which is recognized by it, taking into account the applicable dynamic loads.

**Table 1: Lifting appliances minimum test loads**

SWL of the lifting appliance, in tonnes	Test load, in tonnes
SWL ≤ 20 t	1.25 x SWL
20 t < SWL ≤ 50 t	SWL + 5 t
SWL > 50 t	1.10 x SWL

3.2.1.6 Where the safe working load of the lifting appliances is undocumented and design information is not available, e.g. for lifting appliances which are installed on board before 1 January 2026 and the manufacturer no longer exists, the test load should be calculated using table 1, based on a safe working load nominated by the company, to the satisfaction of the Administration.

### 3.2.2 *Thorough examination*

3.2.2.1 Lifting appliances should be subject to thorough examination to the satisfaction of the Administration:

- .1 upon completion of any load test; and
- .2 annually.

3.2.2.2 Where thorough examination does not form part of the renewal survey or annual survey, verification that thorough examination of lifting appliances has been conducted/completed to the satisfaction of the Administration should take place during the renewal survey under SOLAS regulation I/7 or the annual survey under SOLAS regulation I/10, as applicable.

3.2.2.3 If on completion of a thorough examination, the competent person considers the lifting appliance to be unsafe for operation or not in compliance with the applicable requirements of the Administration, then that lifting appliance should be taken out of service until any deficiency is rectified to the satisfaction of a competent person. The lifting appliance should be clearly marked "not to be used" and the status should be recorded in a register of lifting appliances. While out of service, the relevant actions for inoperative lifting appliances as outlined under section 5 of these Guidelines should be followed.

### 3.2.3 *Records of thorough examination and testing*

3.2.3.1 A record of thorough examination and load testing should be maintained in a register of lifting appliances and should be available on board.

3.2.3.2 Load testing and thorough examination may be documented in any convenient form, provided each entry contains the necessary information, is clearly legible and is authenticated by a competent person. The minimum information to be included in the *Certificate of test and thorough examination*, as set out in the appendix 1, should be used. Alternatively, other formats may be used which are acceptable to the Administration, such as those of a classification society recognized by the Administration.

## 3.3 ***Demonstration of compliance***

3.3.1 Before being put into use for the first time, lifting appliances installed on or after 1 January 2026 should be certified as compliant with SOLAS regulations II-1/3-13.2.1 and II-1/3-13.2.3 with the recommended scope for demonstration of compliance of lifting appliances comprising the following:

- .1 a plan appraisal of the lifting appliance and foundation connections;
- .2 verification of materials;
- .3 survey, testing and examination during fabrication;
- .4 verification of component certificates including its loose gear; and
- .5 testing and thorough examination when installed on board.

3.3.2 Lifting appliances installed before 1 January 2026 should be certified as compliant with SOLAS regulation II-1/3-13.2.4 no later than the date of the first renewal survey on or after 1 January 2026.

3.3.3 Existing lifting appliances with valid certificates of test and thorough examination under another international instrument acceptable to the Administration and issued prior to the entry into force of SOLAS regulation II-1/3-13 should be considered compliant with SOLAS regulation II-1/3-13.2.4.

3.3.4 All certified lifting appliances on board a ship should be recorded in the *Register of Ship's Lifting Appliances and Cargo Handling Gear*, as set out in appendix 3, with the *Certificate of test and thorough examination* attached to it (see paragraph 3.2.3.2).

3.3.5 A rigging plan and block list showing the correct reeving and rigging arrangements for the lifting appliance and the associated loose gear positions is to be kept on board, if applicable.

### **3.4 Marking**

3.4.1 The safe working load (SWL) and other information essential for the safe operation of the lifting appliance (e.g. maximum or minimum slewing radius or boom angle) should be permanently and clearly marked in a conspicuous place on the lifting appliance and should be available to the operator.

3.4.2 In all cases where the lifting appliance has a variable load radius rating, the SWLs corresponding to the minimum and maximum radius should be clearly marked in a conspicuous place on the lifting appliance and, in addition, a diagram of the permissible maximum loads over the entire range of use should be displayed in a position clearly visible to the operator.

3.4.3 If the safe working load is established in accordance with paragraph 3.2.1.6, this safe working load should be used for the purpose of compliance with SOLAS regulation II-1/3-13.2.3.

### **3.5 Maintenance, inspection and operational testing**

#### **3.5.1 General**

3.5.1.1 Maintenance, inspection, operational testing and their respective intervals should be in accordance with the manufacturer's recommendations, industry standards and guidelines or classification society requirements and recommendations acceptable to the Administration, considering factors such as the operational profile of the ship and the lifting appliance.

3.5.1.2 All lifting appliances should be considered vulnerable to marine environmental conditions which may lead to significant and accelerated deterioration and corrosion, and the inspection and maintenance regime should be implemented accordingly.

3.5.1.3 The inspection and maintenance of lifting appliances may involve working at height, enclosed space entry and other hazards. These hazards should be considered when developing the relevant procedures for undertaking such tasks, including safe access.

3.5.1.4 Examples of items requiring particular attention may include:

- .1 corrosion and damage of primary structural members, including crane jibs, crane housings (slewing column), pedestals and foundations/foundation connections, including welds and bolts;
- .2 wear, corrosion and damage of mechanical components including winches, hydraulic cylinders, slew bearings, sheaves and pins;
- .3 correct setting and functioning of safety, protection and limitation devices;

- .4 condition and correct functioning of the lifting appliance as a whole and, in particular, hydraulic or pneumatic arrangements, hydraulic/pneumatic cylinders, motors, hoses, piping, winches, brakes and drums;
- .5 corrosion and damage to all means of safe access to the lifting appliances including attached maintenance platforms and extensions, with particular attention to support brackets and welds; and
- .6 certification and identification of ropes.

3.5.1.5 Damaged, broken, worn or corroded ropes, including their terminations, should be inspected and discarded according to manufacturers' recommendations, relevant industry standards, international standards (e.g. ISO 4309:2017 on Cranes – Wire ropes – Care and maintenance, inspection and discard) or requirements of classification societies acceptable to the Administration.

3.5.1.6 If, on completion of an inspection, the responsible person considers the lifting appliance to be unsafe for operation or not in compliance with the applicable requirements of the Administration, then that lifting appliance should be taken out of service until any deficiency is rectified to the satisfaction of a competent person. The lifting appliance should be clearly marked "not to be used" and the status should be recorded in a register of lifting appliances. While out of service, the relevant actions for inoperative lifting appliances as outlined under section 5 of these Guidelines should be followed.

### 3.5.2 *Maintenance manual*

3.5.2.1 A maintenance manual for a lifting appliance should be provided by the manufacturer. Where maintenance manuals for existing lifting appliances are not available from the manufacturer, these may be provided by competent third parties.

3.5.2.2 The maintenance manual should, as a minimum, include the following for each lifting appliance:

- .1 description of the required inspection regime and maintenance schedules specific to the lifting appliance, checklists and a list of key tools or other items for use when carrying out inspections and maintenance;
- .2 instructions for routine repairs/maintenance;
- .3 technical maintenance information;
- .4 information on recommended lubricants, oil and filter change;
- .5 information on slewing bearing maintenance, if applicable;
- .6 lists of replaceable parts/components, as well as the inspection/maintenance/replacement procedures for these parts/components;
- .7 lists of sources of spare parts;
- .8 model forms for records of inspections and maintenance;
- .9 operational test procedures, as well as the pre/post-operational test inspection procedures;

- .10 list of components requiring particular attention during inspections, as well as the inspection/maintenance procedures for these components;
- .11 recommended intervals for replacement and overhaul of components and equipment;
- .12 information on the preservation of the coating and corrosion protection system; and
- .13 information regarding special inspection and maintenance in cases where the lifting appliance is not operated for long periods of time.

### **3.5.3** *Records of inspections and maintenance*

3.5.3.1 Records of the routine inspection and maintenance of lifting appliances or their components or parts should be maintained and kept on board.

3.5.3.2 The records and particulars of inspection and maintenance may be documented in any convenient form, provided each entry contains the necessary information, is clearly legible and is authenticated by a responsible person. Any recommendations of the manufacturer for such inspection and maintenance records should be used.

## **3.6** *Operations*

### **3.6.1** *General*

3.6.1.1 Personnel operating lifting appliances should be qualified, familiarized with the equipment and be authorized by the master.

3.6.1.2 All personnel involved in a lifting operation should understand their role during the operation and, in particular, the signals that may be required to commence, coordinate or stop the operation.

3.6.1.3 Personnel involved in lifting operations should be equipped with appropriate personal protective equipment for the task.

3.6.1.4 Lifting operations should be planned, supervised and carried out so that any identified risks are minimized.

3.6.1.5 Procedures and instructions should relate to the specific type of lifting appliance and should be provided in the operations manual.

3.6.1.6 Due consideration should be given to any limiting conditions such as ship's motion/inclination, wind speeds including wind gusts, environmental conditions such as ice and snow, limitations of the lifting appliance such as SWL and slew radius, etc. of the lifting appliance.

3.6.1.7 Effective communication should be established between ship's personnel and shore-based personnel involved in the lifting operation.

3.6.1.8 Safe means of access to lifting appliances and loads requiring attachment/detachment should be established. Safe areas for the signaller and slinger should be available.

3.6.1.9 When developing plans and procedures for lifting operations, consideration should be given to avoiding any part of the lifting appliances striking any person or other structures in close proximity.

3.6.1.10 Procedures and measures for the safe operation of lifting appliances should take account of applicable international and national instruments and best practices for occupational safety and health.

3.6.1.11 Lifting appliances should be restrained and stowed in order to avoid uncontrolled movement during sea voyages. The stowage and restraining arrangements should be as required by the manufacturer.

3.6.1.12 Personnel operating the lifting appliance should consult the operations manual for any specific instructions related to the lifting operations.

### **3.6.2 Operations manual**

3.6.2.1 An operations manual for a lifting appliance should be provided by the manufacturer. Where operations manuals for existing lifting appliances are not available from the manufacturer, these may be provided by competent third parties.

3.6.2.2 An operations manual should, as a minimum, include the following for each lifting appliance:

- .1 design, operational and environmental limitations;
- .2 compatible loose gear;
- .3 safety instructions; and
- .4 operating procedures, including special procedures, if any.

3.6.2.3 For lifting appliances installed before the date of entry into force of SOLAS regulation II-1/3-13 operation manuals should be developed with original manufacture, design and build data and take into account any modifications since installation. Where original data or modification data is not available, operations manual should be developed on the current operational procedures and practices.

## **4 Loose gear**

### **4.1 Design and manufacturing**

Loose gear utilized with lifting appliances to which SOLAS regulations II-1/3-13.2.1 and II-1/3-13.2.4 apply should be designed and manufactured in accordance with requirements acceptable to the Administration or a classification society which is recognized by the Administration in accordance with the provisions of regulation XI-1/1.

### **4.2 Proof test and thorough examination**

#### **4.2.1 Proof test**

All loose gear in use with lifting appliances to which SOLAS regulation II-1/3-13 applies should have documentary evidence of a proof test and be retested after repairs, modifications or alterations of a major character to the satisfaction of the Administration. Where an item of loose gear is tested, minimum test loads should be to the satisfaction of the Administration, based on table 2 below.

**Table 2: Loose gear minimum test loads**

Item	Test load, in tonnes
Single sheave block	4 x SWL
Multi-sheave blocks and hook blocks: SWL ≤ 25 t 25 t < SWL ≤ 160 t 160 t < SWL	2 x SWL (0.933 x SWL) + 27 1.1 x SWL
Hooks, shackles, chains, rings, swivels, etc.: SWL ≤ 25 t 25 t < SWL	2 x SWL (1.22 x SWL) + 20
Lifting beams, spreaders, frames, grabs: SWL ≤ 10 t 10 t < SWL ≤ 160 t 160 t < SWL	2 x SWL (1.04 x SWL) + 9.6 1.1 x SWL
<p>Note 1. Sheave blocks that are permanently attached to, or are integral with the hook, are called hook blocks. Hook blocks are to be tested with the load for multi-sheave blocks. The hook of the hook block is to be tested with the loads for hooks.</p> <p>Note 2. The SWL for a single sheave block, including single sheave blocks with becketts, is to be taken as one half of the resultant load on the head fitting.</p> <p>Note 3. The SWL of a multi-sheave block is to be taken as the resultant load on the head fitting.</p>	

#### 4.2.2 *Thorough examination*

4.2.2.1 Loose gear should be subject to thorough examination to the satisfaction of the Administration:

- .1 upon completion of any proof test; and
- .2 annually.

4.2.2.2 Where thorough examination does not form part of the renewal survey or annual survey, verification that thorough examination of loose gear has been conducted/completed to the satisfaction of the Administration should take place during the renewal survey under SOLAS regulation I/7 or the annual survey under SOLAS regulation I/10, as applicable.

4.2.2.3 If, on completion of a thorough examination, the competent person considers the item(s) of loose gear to be unsafe for operation or not in compliance with the applicable requirements of the Administration, then that loose gear should be taken out of service until any deficiency is rectified to the satisfaction of a competent person. The loose gear should be clearly marked "not to be used" and the status should be recorded in a register of lifting appliances. While out of service, the relevant actions for inoperative loose gear as outlined under section 5 of these Guidelines should be followed.

### **4.3 Demonstration of compliance**

4.3.1 Before being put into use for the first time, loose gear utilized with lifting appliances which comply with SOLAS regulations II-1/3-13.2.1 and 3-13.2.4 should be certified to meet the provisions in section 4.

4.3.2 Certificates of test and thorough examination of certified loose gear should be attached to the *Register of ship's lifting appliances and cargo handling gear* (see paragraph 4.7.1.2).

### **4.4 Marking**

4.4.1 Loose gear should be clearly and permanently marked with its unique identification (serial no.), the SWL and any additional marks required for safe use.

4.4.2 In addition, specific types of loose gear should be marked with the following minimum information:

- .1 ramshorn hooks: range of sling angle;
- .2 block and hook blocks;
  - .1 rope diameter;
  - .2 rigging plan identification mark (for blocks) if any;
- .3 lifting beams, spreaders, frames;
  - .1 tare weight;
  - .2 allowable sling angles;
  - .3 details of the safe application of the SWL in case of complex equipment which can be utilized in different ways;
- .4 grabs;
  - .1 tare weight; and
- .5 other equipment as per the requirements of the classification society or industry standards acceptable to the Administration.

4.4.3 If there is insufficient space for the marking on the loose gear other than the SWL, the omitted information should be included in the certificate or be provided by other suitable means.

### **4.5 Operation**

Personnel involved in lifting operations which utilize loose gear should be qualified, familiarized with the equipment and be authorized by the master.

### **4.6 Maintenance and inspection**

4.6.1 Maintenance and inspections at respective intervals should be in accordance with the manufacturer's recommendations, industry standards and guidelines or classification society requirements and recommendations acceptable to the Administration considering factors such as the operational profile of the ship and the loose gear.

4.6.2 All loose gear should be considered vulnerable to marine environmental conditions which may lead to significant and accelerated deterioration and corrosion and the inspection and maintenance regime should be implemented accordingly.

4.6.3 The inspection and maintenance of loose gear may involve working at height, enclosed space entry and other hazards. These hazards should be considered when developing the relevant procedures for undertaking such tasks, including safe access.

4.6.4 Loose gear should be inspected by a responsible person before each use.

4.6.5 Examples of aspects requiring particular attention may include:

- .1 wear, corrosion, damage and correct functioning of the loose gear;
- .2 damaged, worn or corroded chains, including their terminations;
- .3 certification and identification of loose gear; and
- .4 physical or chemical degradation, including degradation due to the exposure to the environment.

4.6.6 If on completion of an inspection the responsible person considers the loose gear to be unsafe for operation or not in compliance with the applicable requirements of the Administration, then the loose gear should not be used until any deficiency is rectified to the satisfaction of a competent person. The loose gear should be clearly marked "not to be used" and the status should be recorded in a register of lifting appliances. While out of service, the relevant actions for inoperative loose gear as outlined in section 5 should be followed.

#### **4.7 *Records of inspection, maintenance, testing and thorough examination***

##### **4.7.1 *Records of thorough examination and testing***

4.7.1.1 A record of thorough examination and evidence of proof testing of loose gear should be maintained in a register of lifting appliances and kept on board.

4.7.1.2 Records of thorough examination may be documented in any convenient form, provided each entry contains the necessary information, is clearly legible and is authenticated by a competent person. The minimum information to be included in the *Certificate of test and thorough examination of loose gear*, as set out in appendix 2, should be used. Alternatively, other formats may be used which are acceptable to the Administration, such as those of a classification society recognized by the Administration.

##### **4.7.2 *Records of inspection and maintenance***

4.7.2.1 Records of the routine inspection and maintenance of loose gear should be maintained and kept on board.

4.7.2.2 The records and particulars of inspection and maintenance may be documented in any convenient form, provided each entry contains the necessary information, is clearly legible and is authenticated by a responsible person. Any recommendations of the manufacturer for such inspection and maintenance records should be used.

## **5 Inoperative lifting appliances and loose gear**

For the implementation of SOLAS regulation II-1/3-13.4, the following actions should be taken by the master to mitigate risks posed by inoperative lifting appliances:

- .1 take the inoperative lifting appliance into account in planning and executing a safe voyage;
- .2 prevent operation of inoperative lifting appliances;
- .3 prevent uncontrolled movement of inoperative lifting appliances or their components using appropriate restraining and preventing arrangements, if required;
- .4 store inoperative loose gear separately from in-service loose gear and mark it as being inoperative; and
- .5 record a particular lifting appliance or loose gear that is inoperative in the register of ship's lifting appliances until necessary repairs have been completed and it has been load tested or proof tested, as necessary, and thoroughly examined.

**APPENDIX 1**

**SAMPLE CERTIFICATE  
OF TEST AND THOROUGH EXAMINATION OF LIFTING APPLIANCES**

*(Official seal)*

Certificate No. \_\_\_\_\_

Name of Ship:

IMO Number:

Call Sign:

Port of Registry:

Name of Owner:

This is to certify that the lifting appliances listed below have been tested and thoroughly examined as required by SOLAS regulation II-1/3-13.

Situation and description of lifting appliance (with distinguishing number or mark, if any) which has been tested and thoroughly examined	Angle to the horizontal or radius at which test load is applied		Test load (tonnes)	Safe working load at angle or radius shown (tonnes)
	Angle (degrees)	Radius (metres)		

This certificate is valid until ..... *(dd/mm/yyyy)*

Completion date of the testing and thorough examination on which this certificate is based:

Issued at ..... *(place of issue of the certificate)*

Date of issue ..... *(dd/mm/yyyy)*

Signature of competent person issuing the certificate .....

*(Seal or stamp of the issuing authority)*

**APPENDIX 2**

**SAMPLE CERTIFICATE  
OF TEST AND THOROUGH EXAMINATION OF LOOSE GEAR**

*(Official seal)*

Certificate No. \_\_\_\_\_

Name of Ship:

IMO Number:

Call Sign:

Port of Registry:

Name of Owner:

This is to certify that the loose gear listed below have been tested and thoroughly examined as required by SOLAS regulation II-1/3-13.

Distinguishing number or mark	Description of loose gear	Number tested	Date of test	Test load applied (tonnes)	Safe working load (tonnes)
-------------------------------	---------------------------	---------------	--------------	----------------------------	----------------------------

Name and address of makers or suppliers: .....

Name and address of the company of competent person who witnessed testing and carried out thorough examination: .....

Name of the competent person and position in public service, association, company: .....

Completion date of the testing and thorough examination on which this certificate is based:

Issued at ..... (*place of issue of the certificate*)

Date of issue ..... (*dd/mm/yyyy*)

Signature of competent person issuing the certificate .....

*(Seal or stamp of the issuing authority)*

**APPENDIX 3**

**SAMPLE FORM  
OF REGISTER OF LIFTING APPLIANCES AND CARGO HANDLING GEAR**

Name of Ship

Official Number

Call Sign

Port of Registry

Name of Owner

Thorough examination of lifting appliances and loose gear

(1) Situation and description of lifting appliances and loose gear (with distinguishing numbers or marks, if any) which have been thoroughly examined (see note 1).	(2) Certificate nos.	(3) I certify that on the date to which I have appended by signature, the gear shown in column (1) was thoroughly examined and no defects affecting its safe working condition were found other than those shown in column (4) date and signature (see note 2).	(4) Remarks

**Note 1:**

If all the lifting appliances are thoroughly examined on the same date it will be sufficient to enter in column (1) 'All lifting appliances and loose gear'. If not, the parts which have been thoroughly examined on the dates stated must be clearly indicated.

**Note 2:**

The thorough examinations to be indicated in column (3) include:

- (a) Initial
- (b) 12-monthly
- (c) Five-yearly
- (d) Repair/damage
- (e) Other thorough examinations including those associated with heat treatment

---

4 ALBERT EMBANKMENT  
LONDON SE1 7SR  
Telephone: +44 (0)20 7735 7611 Fax: +44 (0)20 7587 3210

MSC.1/Circ.1696  
28 August 2025

### **UNIFIED INTERPRETATION OF SOLAS REGULATION II-1/3-13.2.4**

1 The Maritime Safety Committee, at its 110th session (18 to 27 June 2025), in order to facilitate uniform documentation of load testing and thorough examination for existing non-certified lifting appliances, approved the unified interpretation of SOLAS regulation II-1/3-13.2.4, prepared by the Sub-Committee on Ship Systems and Equipment, at its eleventh session (24 to 28 February 2025), as set out in the annex.

2 Member States are invited to use the annexed unified interpretation as guidance when applying SOLAS regulation II-1/3-13.2.4 and to bring the unified interpretation to the attention of all parties concerned.

\*\*\*

---

**ANNEX****UNIFIED INTERPRETATION OF SOLAS REGULATION II-1/3-13.2.4****SOLAS regulation II-1/3-13.2 – Design, construction and installation**  
**MSC.1/Circ.1663 *Guidelines for lifting appliances***

1 For existing lifting appliances installed before 1 January 2026 without valid certificates of the test and thorough examination under another international instrument (e.g. ILO Convention concerning Occupational Safety and Health in Dock Work (No. 152)) acceptable to the Administration, compliance with SOLAS regulation II-1/3-13.2.4 could be demonstrated by means of a "factual statement" (also known as a "statement of fact"), issued by the competent person approved by the Administration, or the recognized organization (RO).

2 The factual statement should confirm that the lifting appliance has been subjected to a load test (the value of the test load is to be taken as per table 1 of paragraph 3.2.1.5 of the *Guidelines for lifting appliances* (MSC.1/Circ.1663) and subsequently been thoroughly examined by the competent person approved by the Administration, or an RO, satisfying the requirements in SOLAS regulation II-1/3-13.2.4 only. The criteria against which the load test and thorough examination have been carried out, should be clearly stated in the factual statement. It should further be stated that the factual statement does not confirm compliance with SOLAS regulations II-1/3-13.2.1 and 3-13.2.3. A sample factual statement is provided in the appendix to this unified interpretation.

3 Where, as described in paragraph 3.2.1.6 of the Guidelines (MSC.1/Circ.1663), the safe working load (SWL) has been nominated by the company (see definition SOLAS regulation IX/1), it should be made clear in the factual statement that the competent person approved by the Administration, or an RO, has confirmed that the test load has been calculated based on a SWL nominated by the company, to the satisfaction of the Administration. Further, it should be made clear in the factual statement, that the SWL is not confirmed by the competent person.

4 To avoid misinterpretation of the extent of the confirmation of compliance, the factual statement form should be different from the form used to confirm compliance with SOLAS regulations II-1/3-13.2.1 and 3-13.2.3. The Sample Certificate in appendix 1 of the Guidelines, should not be used also as a factual statement form to confirm compliance with SOLAS regulation II-1/3-13.2.4.

5 In order to document the history of the test and thorough examination and to comply with paragraph 3.2.2.1.1 of the Guidelines, the factual statement may be attached to the form "Register of lifting appliances and cargo handling gear" in appendix 3 of the Guidelines, as long as the factual statement clearly refers to documenting the compliance with SOLAS regulation II-1/3-13.2.4 only.

6 In order to comply with paragraph 3.2.2.1.2 of the Guidelines, the annual thorough examination may be documented (as 12-monthly, with reference to Note 2 (b)) in the form "Register of lifting appliances and cargo handling gear" in appendix 3 of the Guidelines.

**APPENDIX\***

**SAMPLE FORM OF THE FACTUAL STATEMENT OF THE TEST AND THOROUGH  
EXAMINATION OF NON-CERTIFIED EXISTING LIFTING APPLIANCES  
INSTALLED BEFORE 1 JANUARY 2026**

Factual Statement  
of the test and thorough examination of non-certified existing lifting appliances  
installed before 1 January 2026

Issued under the provisions of paragraph 3.2.3.2 of the *Guidelines for lifting appliances*  
(MSC.1/Circ.1663).

(Official seal) Document No.: .....

Name of Ship: .....

IMO Number: .....

Call Sign: .....

Port of Registry: .....

Name of Owner: .....

**THIS FACTUAL STATEMENT:**

- .1 is to confirm that the lifting appliance(s) described herein, has/have been load tested and thoroughly examined and, on examination, found free from defects, as far as could be seen;
- .2 may be used to document compliance with SOLAS regulation II-1/3-13.2.4;
- .3 does not confirm compliance with SOLAS regulations II-1/3-13.2.1 and 3-13.2.3;
- .4 does not confirm the safe working load (SWL) of the lifting appliance(s) nominated by the Company, to the satisfaction of Administration;
- .5 is to confirm that the lifting appliance(s) listed below has/have been subjected to a load test followed by thorough examination carried out by a competent person; and
- .6 is to confirm that the test load of \_\_\_\_\_ (tonnes) has been calculated in accordance with paragraphs 3.2.1.5 and 3.2.1.6 of the *Guidelines for lifting appliances* (MSC.1/Circ.1663), based on the safe working load (SWL) of \_\_\_\_\_ (tonnes) nominated by the Company to the satisfaction of the Administration (attached to this factual statement).

---

\* The sample Factual Statement provided in the appendix represents only a possible form of a factual statement. Other forms can also be used provided that all necessary information is contained.

Situation and description of lifting appliance (with distinguishing number or mark, if any) which has been tested and thoroughly examined	Angle to the horizontal or radius at which test load is applied		Test load (tonnes)
	Angle (degrees)	Radius (metres)	
Lifting appliance A (e.g. description, serial number, etc.)			
Lifting appliance B (e.g. description, serial number, etc.)			

This factual statement is valid until: ..... (dd/mm/yyyy)

Date of load test and thorough examination: ..... (dd/mm/yyyy)

Issued at: ..... (place of issue of the statement)

Date of issue: ..... (dd/mm/yyyy)

Signature of the competent person issuing the factual statement: .....

\_\_\_\_\_