澳大利亚港口国船舶安全检查动态

2015 年第 001 期，总第 041 期

AMSA 关于船舶在港期间使用舷梯的规定

船舶在港期间，所有人员上下船必须使用满足规定要求的**登离船设施**（Means of Access to Vessel，或者Means of embarkation on and disembarkation from ships）。登离船设施通常为**船舶舷梯**（Ship Accommodation Ladder）或**跳板梯**（Gangway）或码头提供的其他**专用设施**。

根据澳洲不同港口的要求，登离船设施可能由船方提供，也可能由港方提供。

根据AMSA的规定，即使登离船设施由港方提供，船长仍然对登离船设施的安全性和人员安全使用登离船设施负责。

一、AMSA关于登离船设施的要求

AMSA规定，登离船设施必须符合《Marine Order 21》的规定，同时满足SOLAS公约和IMO 海安会通函的相关规定。

【资料】AMSA《 Marine Order 21》 关于在港船舶使用登离船设施的部分规定：

Schedule 8 Means of access to vessels in port

1. Safe means of access

1.1 The master of a vessel in port must ensure that the means of access to the vessel provided by the master for persons boarding or disembarking from the vessel is safe and complies with:

(a) section 68 of this Order; or

(b) Regulation 3-9 of Chapter II-1 of SOLAS and IMO Circular MSC.1/Circ.1331.

Note Regulation 3-9 of Chapter II-I of SOLAS is adopted by IMO resolution MSC.256(84).

1.2 If a means of access is provided by a port authority or other person, the master must take measures to ensure that any safety concern has the attention of:

(a) the person providing access; and

(b) a person requiring access to or from the vessel.

二、SOLAS公约和IMO通函对船舶舷梯的要求

SOLAS公约CH II-1 /Reg.3-9 和IMO通函MSC.1/Circ.1331对登离船设施的使用和技术要求做了明确规定：

- 船上应保存船级社签发的船舶舷梯**产品证书**（仅仅适用于2010年1月1日之后建造的船舶）
- 船上应保留5年度船舶舷梯**负荷试验报告**。
- 船舶舷梯应得到有效的**维护保养**。船上应保留舷梯的维护保养记录，包括舷梯**钢丝绳检查和换新记录**。
- 舷梯整个长度范围内（认为需要时，还包括舷梯底端平台与码头之间搭建的跳板下部）均应绑扎安全网。
- 提供足够的照明，以照亮登离船设施、甲板上人员登离船和装置控制的位置。
- 舷梯上端平台附件应设有一个带有自亮浮灯、救生浮索的救生圈。

【技术澄清】救生圈的存放要求

根据中国船级社（2014 年）通函第19号总第503号技术通函《关于登离船设施附近配备的救生圈的救生浮索问题的通知》的解释：为了避免影响救生圈紧急情况下的迅速使用，舷梯上端平台附件的救生圈，除非能排除救生圈在弃船时被逃生者误用的可能，救生浮索不应同该救生圈保持连接，仅在应急使用时由使用者进行连接。

- 在每部舷梯两端应设置一块**标记牌**，以清楚显示安全操作和负荷限制，包括最大和最小允许设计倾斜角、设计负荷、最大底端平台负荷等等。如果最大操作负荷小于设计负荷，则最大操作负荷也应显示在标记牌上。
- 舷梯使用时水平倾斜角不应大于55°，除非设计和构造的使用

倾角大于这个角度。（对于跳板梯，安放水平倾斜角不应大于30°）

2010年1月1日以后建造的船舶舷梯附加要求

- 船舶舷梯应有足够的长度，确保其最大操作倾斜角时，底端平台在最轻载航行水线以上不大于600mm。

三、需要船长特别关注的问题

AMSA于2014年8月发布了《Marine Notice 13/2014》，对船舶在码头期间正确使用登离船设施给出了特别提示：

1、悬浮状态使用舷梯

当使用船舶舷梯作为登离船设施，AMSA 要求舷梯应在规定的倾斜角度内，底端平台要求着陆到码头。AMSA 注意到有些码头无法使舷梯底端平台安全着陆，这时，必须在舷梯底端平台和码头之间牢固搭建跳板。这种情况下的跳板倾斜角度不应超过 30°。

有些港口，例如 Port Hedland，需要雇佣交通艇从悬浮的外档舷梯登轮。此时，舷梯倾斜角度必须满足上述要求。**超过规定倾斜角度，AMSA 将禁止船舶继续使用舷梯，直至满足要求。**

2、舷梯防跌落装置

澳洲地区有些码头要求船舶安装舷梯防跌落装置。船舶可以安装经船级社批准和发证的舷梯防跌落装置。

AMSA 检查中发现有些船舶的舷梯防跌落装置没有起到安全保护作用。例如，连接到了船舶和舷梯上的非受力点、钢丝绳和构件抗拉强度不足、防跌落装置无法随着船舶吃水和潮汐的变化进行调整，等等。遇

到这些情况，**AMSA 将禁止船舶继续使用舷梯及其防跌落装置**。

有些船舶为了满足码头快速装载需要，提前排放压载水至船舶最轻载水线以下。当乘坐交通艇从船舶外弦舷梯登轮时，将会导致舷梯倾斜角度大于 55°。在此，**特别提醒船长注意避免这种情况的发生**。

3、船舶使用**跳板梯（Gangway）**

当船舶使用**跳板梯**，随着潮水和船舶装货量的变化，船长须安排人员经常关注跳板梯的倾斜角度不能超过 30°，同时确保码头端的跳板梯要安全着落。当需要港方协助重新调整跳板时，船长应提前做好协调。

4、船舶在锚地使用舷梯的注意事项

AMSA《Marine Order 21》规定，船舶在锚泊状态下，当船长认为使用舷梯不满足上述要求时，船舶可以使用引水员梯。引水员梯的使用仅限于引水员和登轮从事船舶业务的人员。但是，紧急情况下，船长可允许任何人使用引水员梯。

附件一 AMSA《Marine Notice 13/2014》

CCS 澳大利亚办事处
2015 年 1 月 10 日

Australian Government
Australian Maritime Safety Authority

MARINE NOTICE

Attachment I

Marine Notice 13/2014

Means of embarkation and disembarkation from ships in port

The purpose of this Marine Notice is to bring to the attention of ship owners, ship operators, ship masters, port authorities, terminal operators and persons boarding and disembarking ships the requirements for accommodation ladders and gangways under section 68 of Marine Order 21.

Section 68 of Marine Order 21 requires access to be provided in accordance with Schedule 8 of the order. This section places obligations on both the master of the ships and those using the access.

It is important to note that the master of the ship is not required to provide the means of access, however, where it is provided by the ship the master must ensure the means of access complies with MO 21, SOLAS regulation II-1/3-9 and MSC.1/Circ.1331. If the master cannot provide compliant access with the means available on board, an alternate arrangement must be put in place rather than employing an unsafe/non-compliant arrangement.

Where a means of access is provided by a port authority or other person, the master must take measures to ensure that any safety concern identified are bought to the attention of:

(a) the person providing access; and

(b) a person requiring access to or from the vessel.

The master and any provider of the means of access are both responsible for ensuring that no unsafe means of access are used.

AMSA has become aware of the following recurring issues:

Suspended Accommodation Ladders

Where access is provided by mean of the ships accommodation ladder Schedule 8 of Marine order 21 requires that the means of access is ***at an angle allowing safe access to the vessel and firmly landed on the wharf edge*.**

AMSA is aware that arrangements at some berths in Australia prevent accommodation ladders being safely landed on the wharf edge. In such situations it is a common practice to suspend the ship's accommodation ladder at the ship's side with a short brow or gangway fitted to the lower accommodation ladder platform to bridge the gap between the ship and wharf edge.

In other cases terminal access restrictions are being imposed resulting in accommodation ladders being rigged on the outboard side of the ship with access by launch.

If the use of these practices results in an unsafe means of access to or from a vessel in port, it will be a breach of section 68 of Marine Order 21.

Fall prevention devices on suspended gangways

Where this occurs some terminals are requiring or encouraging the ship master to fit fall prevention devices to suspended ships accommodation ladders, especially those that are deployed on the outboard side of the ship.

There are no requirements under Marine Order 21 or SOLAS regulation II -1/3-9 for the fitting of accommodation ladder fall prevention arrangements and no standards in MSC.1/Circ1331 for the construction, maintenance and operational testing of gangway fall prevention arrangements. In some cases ships may be fitted with class approved and certified gangway fall prevention arrangements, however, this is not the case in the majority of ships AMSA has inspected.

AMSA has noted in many cases that the fall prevention arrangements fitted are inadequate for their intended purpose and introduce unacceptable hazards and risks. The fall prevention arrangements have been found to have inadequate load bearing capacity because they are connected to non-load bearing parts of the accommodation ladder and ship structure or the tensile strength of ropes, wires, pullies and fittings is inadequate. Some arrangements are not adjustable and add a further risk to safety when the ships draft changes or due to tidal variation.

AMSA does not object in principle to a fall prevention device that is properly designed and fit for purpose. However, where these devices or arrangements pose a safety risk AMSA will take action as appropriate.

Accommodation ladders and gangways at steep angles

The angle of an accommodation ladder/gangway is governed by two requirements of MSC.1/ Circ.1331.

Section 3.4.1 of MSC.1/ Circ.1331 requires that ships accommodation ladders are of sufficient length that at the maximum design operating angle the lower platform will be not more than 600 mm above the waterline in the lightest seagoing condition, as defined in SOLAS regulation III/3.13.

The second relates to the maximum angle of inclination where section 3.7.1 of MSC.1/ Circ.1331 requires that:

- Gangways (such as shore supplied brows or gangways) not be used at an angle of inclination greater than 30° from the horizontal; and
- Ships accommodation ladders should not be used at an angle greater than 55° from the horizontal, unless designed and constructed for use at angles greater than these and marked as such, as required by paragraph 3.5 of MSC.1/Circ.1331.

Unsafe arrangements

In order to prevent undue delays in preparation for loading it has become common practice in many Australian bulk terminals for ships, especially where a high loading rate is expected, to be deballasted beyond their lightest seagoing condition in preparation for loading.

This has resulted in ships accommodation ladders being rigged at angles of inclination greater than their design limits at the commencement of the load. This is especially evident at wharfs with a minimal height above high water or where access to the ship is via launch using an accommodation ladder rigged on the seaward side of the ship. AMSA has noted accommodation ladders in use where the angle is well in excess of 55°. Such angles result in access being both difficult and dangerous.

AMSA surveyors have also found gangways provided by terminals or port authorities are frequently rigged at angles of more than 30°. This is prevalent in terminals where there is a large tidal range and berth design constraints. Gangways should be frequently monitored and adjusted as required to ensure they do not become too steep or are not firmly landed on the wharf edge. Ships may not be able to move or adjust shore gangways due to a lack of appropriate lifting equipment or the position of the gangway on the ship, consequently the provider of the gangway is responsible to ensure adequate resources are provided to move / adjustment gangways as required by the master.

AMSA is increasingly concerned that some unsafe arrangements are being employed as a result of solutions to other perceived concerns. For example, it has been suggested to AMSA that some arrangements requiring access only via launch have been implemented to eliminate Work Health and Safety (WHS) concerns for crew/agents/providores etc. transiting through terminals. When the boarding by launch is unsafe or actually imposes hazards greater than terminal transiting, this arrangement needs to be reviewed. Similarly, employing hanging accommodation ladders with an attached brow simply to overcome appropriate monitoring of the access or to eliminate the need to call in personnel to adjust the landing of the access on the wharf is not in principle an adequate reason to implement arrangements outside the design of the shipboard access arrangement.

It is important to note that accommodation ladders and gangways are designed and tested to be landed on a solid surface. To do otherwise is impacting on the engineering design of the shipboard access arrangement, and that in itself places a higher duty of care on those requiring the change in access arrangement.

Action by AMSA

AMSA wishes to remind masters that they must make every effort to comply **fully** with Marine Order 21 and seek the assistance of port authorities, terminal operators and stevedores as appropriate in ensuring compliance. It should be noted that:

1. If a means of access is provided by a port authority or other person, the master must take measures to ensure that any safety concern has the attention of the person providing access and persons requiring access to or from the vessel and it is the master's responsibility to ensure that only a safe means of access is used. **The shore provider of the access is also responsible for ensuring it complies with Marine Order 21.**

2. Where an accommodation ladder or gangway is employed owners and operators of vessels are reminded that any accommodation ladder or gangway fall prevention arrangements fitted to their ships must be fit for purpose and should seek assistance from their flag and/or class society in this regard.

3. Gangways and accommodation ladders must not be used where the angle exceeds the allowable limits or, in the case of accommodation ladders, the lower platform is too high above the water.

Where an AMSA surveyor identifies that a shore facility has provided an unsafe arrangement for access, or does not provide a mechanism where the ship can provide a safe access by its own means, then an Improvement Notice may be issued to the relevant person under section 265 of the *Navigation Act 2012*. This will specify the action to be taken and the time frame for completion.

If AMSA prohibits use of a means of access, use of that access will constitute an offence.

In addition, all Australian workers are covered by relevant workplace health and safety legislation and this places an obligation on employers and employees to act safely. This means that all persons using ships access have an obligation not to expose themselves to hazards which includes using an unsafe means of access.

AMSA wishes to encourage port authorities and terminal operators to reference the information provided by;

- *Marine Order 21 (Safety of navigation and emergency procedures) 2012*
- *MSC.1/Circ.1331 – Guidelines for Construction, Installation, Maintenance and Inspection/Survey of means of Embarkation and Disembarkation*
- *ILO Code of Practice: Accident prevention on board ship at sea and in port (Section 8 - Safe access to ship)*
- *ILO Code of Practice: Safety and health in ports (Section 3.4 - Shore-side access to ships)*
- *Marine Notice 4/2010 – Construction, Inspection and Maintenance of Accommodation Ladders and Gangways*

and to take all necessary measures to assist ship masters in providing safe access to their ships.

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