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# No.40 Survey Guidelines - Emergency Towing Arrangements

(1995)

## Initial Installation

Fixed gear such as strong points, fairleads, foundations and associated vessel supporting structure are to be demonstrated as adequate for the loads imposed by means of a submitted engineering analysis or calculations. If such analysis is deemed not appropriate depending on structural configuration, proof test may be required.

Articles of loose gear such as chains, towing pennants and associated end fittings, and shackles or other connecting links should be tested to the requirements of the Classification Society concerned.

Note: Where a manufacturer requests a certificate of type approval for a complete packaged towing arrangement, one assembled unit to undergo prototype test to 2 x SWL. Where certificate of type approval is not requested, the deployment test will serve as the prototype test.

## General

1. Components and supporting structure were examined and found to be installed in accordance with approved drawings (1.1)

## Forward Installation

- \* Existing tankers fitted with the emergency towing arrangements in accordance with Resolution A.535 (13) may retain existing towing arrangements at forward location. (1.3)
  - \* Pick-up gear and towing pennant are optional at forward location. (2.2)
  - \* Forward emergency towing arrangements which comply with the requirements for aft emergency towing may be acceptable. (3.1.5)
2. Strongpoint
    - a) Strongpoint meets strength requirement. (2.3)
    - b) Welds between strongpoint and supporting structure were examined by NDE. (2.3)
  3. Fairlead
    - a) Fairlead meets strength requirement. (2.3)
    - b) Fairlead's location and opening is sufficient for passage as well as support of components. (2.7)
  4. Chafing Gear
    - a) Chafing gear meets strength requirement. (2.3)
    - b) If chain, it is stud link and long enough to extend at least 3m beyond the fairlead. (2.8.1, 2.8.2)
    - c) One end is suitable for connection to the strongpoint and the other end fitted with a standard pear-shaped open link and shackle. (2.8.3)
    - d) Chafing gear is to secure to the strongpoint.

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**Note:** Paragraph numbers of IMO Guidelines for Emergency Towing Arrangements on Tankers (Resolution MSC.35 (63), adopted on 20 May 1994) are referred to in the parentheses.

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5. Pedestal Roller
  - a) A suitably positioned pedestal roller is fitted to facilitate connection of the towing pennant to the chafing gear. (3.1.4)
6. Deployment
  - a) The forward emergency towing arrangement was tested after installation and proven capable of being deployed in harbour conditions in not more than 1 hour in the absence of main power on the ship. (2.1, 3.1.3)

Note: Deployment time should commence when crew takes the first action to deploy and should conclude when the towing connection is made fast on the towing vessel and the towing vessel is capable of taking a strain on the towing pennant.

Where an emergency towing arrangement has undergone deployment test, consideration may be given to waiving the deployment tests on similar vessels provided there are no design changes significantly deviating from the original tested arrangement.

**Aft Installation**

7. Strongpoint
  - a) Strongpoint meets strength requirement. (2.3)
  - b) Welds between strongpoint and supporting structure were examined by NDE. (2.3)
8. Fairlead
  - a) Fairlead meets strength requirement. (2.3)
  - b) Fairlead's location and opening is sufficient for passage as well as support of components. (2.7)
9. Chafing Gear

\* Requirement for chafing gear aft is dependent on design. (2.2)

  - a) Chafing gear meets strength requirement. (2.3)
  - b) If chain, it is stud link and long enough to extend at least 3m beyond the fairlead. (2.8.1, 2.8.2)
  - c) One end is suitable for connection to the strongpoint and the other end fitted with a standard pear-shaped open link and shackle. (2.8.3)
  - d) Chafing gear is secured to the strongpoint. (2.8.4, 3.1.1)
10. Pedestal Roller

\* Requirement for pedestal roller aft is dependent on design. (2.2)

  - a) A suitably positioned pedestal roller is fitted to facilitate connection of the towing pennant to the chafing gear. (3.1.4)
11. Towing Pennant
  - a) The towing pennant meets strength requirement and has a certificate of test for 2 x SWL. (2.3)
  - b) The length is at least twice the lightest seagoing ballast freeboard at the fairlead plus 50 meters, but not less than 100 meters. (2.4)
  - c) The pennant has a hard-eye formed termination allowing connection to a standard bow shackle. (2.9)

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12. Pick-up Gear
  - a) A suitable pick-up gear and marker buoy is provided. (3.1.2)
13. Deployment
  - a) The aft emergency towing arrangement was tested after installation and proven to be capable of being deployed in harbour conditions in not more than 15 minutes in the absence of main power on the ship. (2.1, 3.1.1) Note: Refer to Item 6 for Note on Deployment Test.

**AT MANDATORY ANNUAL SURVEY OF SAFETY CONSTRUCTION CERTIFICATE:**

Examination of the Emergency Towing Arrangements as far as practicable. Aft towing arrangement confirmed as pre-rigged and forward chafing gear confirmed as secured to strongpoint. Where light is provided on pick-up gear marker buoy, proper functioning confirmed.

**AT RENEWAL/PERIODICAL SURVEY OF SAFETY CONSTRUCTION CERTIFICATE:**

The emergency towing arrangements examined and confirmed as readily available with aft towing arrangement pre-rigged and forward chafing gear confirmed as secured to strongpoint. The pick-up gear, towing pennant, chafing gear examined over full length for deterioration. Where pennant line is stored in a water tight condition and can be confirmed as maintained, consideration may be given to waiving the requirement to examine the pennant line over the full length. Strongpoint, fairlead and pedestal roller examined together with attachment to vessel.