TECHNICAL REQUIREMENTS FOR THE ISSUE OF A SHIP TOWAGE LICENCE

(PORT OF LONDON VESSEL LICENSING BYELAWS 2014 - BYELAW 13)

Introduction

This document identifies the requirements of any tug seeking a Port of London Authority (PLA) Ship Towage Licence, in order to conduct ship towage operations on the Thames under the provisions of the Port of London Vessel Licensing Byelaws 2014 – Byelaw 13. Under these Byelaws, a tug is defined as a vessel propelled by mechanical power and used for towing or pushing another vessel or a raft or float of timber.

Requirements

1. In order to obtain and maintain a Ship Towage Licence, vessel operators and or owners will need to meet the following requirements:

1.1. Construction

All vessels should normally be constructed to the technical standards for the design, construction and survey of ships issued by Recognised Organisations approved by the MCA (e.g. Lloyd's Register, DNV, Bureau Veritas, etc.), the Small Commercial Vessel and Pilot Boat (SCV) Code or the Thames Freight Standard. Vessels constructed to the standards laid down in the Small Commercial Vessel and Pilot Boat (SCV) Code – Edition 3, are required to be endorsed as a tug in order to provide Ship Towage services.

1.2. Safety Management System

Commercial vessels must implement a robust operational and vessel management regime, including an appropriate Safety Management System (SMS) developed using the principles described in the ISM Code. In particular ISM Code Chapters:

a) Safety Management System;
b) Designated Person(s);
c) Development of Plans for Shipboard Operations;
d) Emergency Preparedness; and
e) Reports and Analysis of Non-Conformities, Accidents and
f) Hazardous Occurrences.

Non-ISM vessels are required to implement a Safety Management System (SMS) developed using the principles described in the Code of Practice for the Management and Operation of Commercial Vessels on the Thames 2013 (Section 1.4)

All Safety Management Systems must be audited by either a recognised body or a third party independent qualified auditor. A third-party auditor should hold one of the following recognised qualifications:

a) ISM Lead Auditor;
b) ISO Lead Auditor in any of the following standards:
    i) ISO 9001;
    ii) ISO 14001;
    iii) ISO 45001; or
c) another qualification acceptable to the PLA, assessed on a case-by-case basis.

The audit schedule should follow the standards laid down in a recognised marine standard (e.g. ISM, DSM, etc.) and should consist of an annual internal audit followed by external audits as dictated by the recognised standard. Evidence of regular auditing must be provided to the PLA during each renewal from **1st September 2025**.

1.3. Port Passage Plans

In addition, all operators shall develop and include in the vessel's SMS documentation, a detailed generic Port Passage Plan as per General Direction 4.1. The Passage Plan must be submitted to the Harbour Master for approval prior to the issue of a Ship Towage Licence. Failure to adhere to the requirements of the Passage Plan may result in the withdrawal of the vessel's Ship Towage Licence.

1.4. Crew Competency

Vessels operating as tugs shall be crewed by competent personnel as detailed in the Code of Practice for the Management and Operation of Commercial Vessels on the Thames 2013 (Appendix 1), alternatively these should be in crewed in compliance with the Minimum Safe Manning Document where applicable.

Vessels certified under the Workboat Code must meet the minimum manning requirements detailed in Appendix 5 (Table A5.1 and A5.2) of the Workboat Code Edition 3.

2. Initial Issue of a Ship Towage Licence

Where a vessel has not previously held a Ship Towage Licence, the operator will be required to submit a Generic Port Passage Plan, Navigational Risk Assessment and Safety Management System for consideration by the Harbour Master and the vessel will be required to undergo an inspection to verify:

a) The validity of the vessel's registry, classification society (or equivalent workboat) certification.
b) The validity of the vessel's bollard pull certificate (subject to the requirements of Annex 1).
c) The condition and operation of the towing winches, hooks/bitts, gob eyes/ropes and associated towing gear (subject to the requirements detailed in Annex 2).
d) Evidence of a planned maintenance system documenting the regular inspection and maintenance of towing equipment and associated towing gear.
e) The condition and operation of the towing arrangements emergency release systems (subject to the requirements detailed in Annex 3).
f) The condition and suitability of certificated towing ropes suitable for the tug's operations (subject to the requirements detailed in Annex 4).
g) The validity of the crew's certification and associated documents.

h) Evidence of Thames CPD registration and compliance with the requirements of General Direction 34.

Failure to produce valid certificates or failure to meet the technical requirements for the condition and operation of the towing arrangements including the emergency release systems may result in an immediate suspension of the inspection leading to the vessel not being licensed for ship towage operations.

3. Annual Ship Towage Licence Renewal

Where a vessel has previously held a Ship Towage Licence, the operator will be required to undergo an inspection to verify:

a) The validity of the vessel's registry, classification society (or equivalent workboat) certification.
b) The validity of the vessel's bollard pull certificate (subject to the requirements of Annex 1).
c) The condition and operation of the towing winches, hooks/bitts, gob eyes/ropes and associated towing gear (subject to the requirements detailed in Annex 2).
d) Evidence of a planned maintenance system documenting the regular inspection and maintenance of towing equipment and associated towing gear.
e) The condition and operation of the towing arrangements emergency release systems (subject to the requirements detailed in Annex 2).
f) The condition and suitability of certificated towing ropes suitable for the tug's operations (subject to the requirements detailed in Annex 4).
g) The validity of the crew's certification and associated documents.
h) Evidence of Thames CPD registration and compliance with the requirements of General Direction 34.
i) At the request of the PLA, a review of the Generic Port Passage Plan, Navigational Risk Assessment and Safety Management System for consideration by the Harbour Master.

Failure to produce valid certificates or failure to meet the technical requirements for the condition and operation of the towing arrangements including the emergency release systems may result in an immediate suspension of the inspection leading to the vessel not being licensed for ship towage operations.

4. Suspension of a Ship Towage Licence

Where a vessel in receipt of a Ship Towage Licence issued in accordance with the Port of London Vessel Licensing Byelaws 13 has been involved in an incident in which the safety of navigation or the safety of port marine operations may have been compromised, the Harbour Master reserves the right to suspend the licence until such time that a full and proper investigation has been completed, and the Harbour Master is satisfied that the requirements for the issue of a Ship Towage Licence are met.

In the event of non-compliance with any of the requirements detailed in 1 – 1.4 the Ship Towage Licence will be suspended immediately, with confirmation of the suspension given in writing as soon as practicable. Re-instatement of a suspended Ship Towage Licence may only be possible once the Harbour Master is satisfied that the vessel(s) meet the requirements detailed in 1 – 1.4.

5. Revocation of a Ship Towage Licence

The PLA reserves the right not to issue a Ship Towage Licence in accordance with the Port of London Vessel Licensing Byelaws 2014 – Byelaw 13, to a vessel operator and/or owner if either the vessel operator or owner (or a connected person to either the vessel operator or owner) has had another Ship Towage Licence revoked or has been subject to any enforcement action taken by the PLA in the past 3-year period.

The 3-year period for these purposes shall be a period of 3 years prior to the date of application for the new Ship Towage Licence.

A connected person for these purposes is a company or body in which either the vessel operator or owner has an interest which includes, but is not limited to, a directorship, a partnership stake or a shareholding.

Annex 1 – Bollard Pull Certificate

The vessel must be in possession of a valid bollard pull certificate issued by a competent testing house acceptable to the PLA. Where the vessel's age is 15 years or greater, the bollard pull certificate must have been issued within 5 years of the Ship Towage Licensing Inspection.

Failure to produce a valid bollard pull certificate may result in the termination of the inspection or at the discretion of the Harbour Master the issuance of a limited Ship Towage Licence to cover the period of time necessary to complete a new Bollard Pull test and gain the certification.

Annex 2 – Condition and Operation of the Towing Arrangements

Towing arrangements used for ship towage operations must be maintained in a good working condition with a suitable planned maintenance programme in place in line with the manufacturer's requirements.

Towing Winches

Towing winches are to be provided with an emergency release system as described in Annex 3.

Towing Hooks

Towing hooks shall be provided with an emergency release system operable from a position on the bridge with full view and control of the towing operation, as well as at a location near the hook where the device can be safely operated. Identical means of control for the emergency release systems shall be provided at each control station and are to be protected against unintentional use. The emergency release system is to function as quickly as is reasonably practicable and **within a maximum of three seconds after activation.**

The force necessary to open the hook under load is to be not greater than 150 N.

The testing of towing hooks shall be carried out at the safest maximum load

Towline guiding fittings

Towline guiding fittings, such as gob eyes, fairleads, staples, towing pins, stern rollers and equivalent components which guide the towline, shall be able to sustain the force exerted by the towline loaded under a tension equal to the design load, in the most unfavourable anticipated position of the towline.

Annex 3 – Condition and Operation of the Towing Winch Emergency Release System

In accordance with the International Association of Classification Societies (IACS) Unified Requirement M79 Rev 1 Towing winch emergency release systems – Rev.1 Feb 2020, the condition and operation of towing winch emergency release systems shall be as follows:

5 Emergency release system requirements

5.1 Performance requirements

5.1.1 The emergency release system is to operate across the full range of towline load, fleet angle and ship heel angle under all normal and reasonably foreseeable abnormal conditions (these may include, but are not limited to, the following: vessel electrical failure, variable towline load (for example due to heavy weather), etc.).

5.1.2 The emergency release system shall be capable of operating with towline loads up to at least 100 per cent of the maximum design load.

5.1.3 The emergency release system is to function as quickly as is reasonably practicable and **within a maximum of three seconds after activation.**

5.1.4 The emergency release system is to allow the winch drum to rotate and the towline to pay out in a controlled manner such that, when the emergency release system is activated, there is sufficient resistance to rotation to avoid uncontrolled unwinding of the towline from the drum. Spinning (free, uncontrolled rotation) of the winch drum is to be avoided, as this could cause the towline to get stuck and disable the release function of the winch.

5.1.5 Once the emergency release is activated, the towline load required to rotate the winch drum is to be no greater than:

(a) the lesser of five tonnes or five per cent of the maximum design load when two layers of towline are on the drum, or

(b) 15 per cent of the maximum design load where it is demonstrated that this resistance to rotation does not exceed 25 per cent of the force that will result in listing sufficient for the immersion of the lowest unprotected opening.

5.1.6 Emergency release of the towline is to be possible in the event of a blackout. For this purpose, where additional sources of energy are required, such sources are to comply with 5.1.7.

5.1.7 The sources of energy required by 5.1.6 are to be sufficient to achieve the most onerous of the following conditions (as applicable):

(a) sufficient for at least three attempts to release the towline (i.e. three activations of the emergency release system). Where the system provides energy for more than one winch it is to be sufficient for three activations of the most demanding winch connected to it.

(b) Where the winch design is such that the drum release mechanism requires continuous application of power (e.g. where the brake is applied by spring tension and released using hydraulic or pneumatic power), sufficient power is to be provided to operate the emergency release system (e.g. hold the brake open and allow release of the towline) in the event of a blackout for a minimum of five minutes. This may be reduced to the time required for the full length of the towline to feed off the winch drum at the load specified in 5.1.5 if this is less than five minutes.

5.2 Operational requirements

5.2.1 Emergency release operation must be possible from the bridge and from the winch control station on deck. The winch control station on deck is to be in a safe location. A position in close proximity to the winch is not regarded as "safe location", unless it is documented that the position is at least protected against towline break or winch failure.

5.2.2 The emergency release control is to be located close to an emergency stop button for winch operation, if provided, and shall be clearly identifiable, clearly visible, easily accessible and positioned to allow safe operability.

5.2.3 The emergency release function is to take priority over any emergency stop function. Activation of the winch emergency stop from any location is not to inhibit operation of the emergency release system from any location.

5.2.4 Emergency release system control buttons are to require positive action to cancel, the positive action may be made at a different control position from the one where the emergency release was activated. It must always be possible to cancel the emergency release from the bridge regardless of the activation location and without manual intervention on the working deck.

5.2.5 Controls for emergency use are to be protected against accidental use.

5.2.6 Indications are to be provided on the bridge for all power supply and/or pressure levels related to the normal operation of the emergency release system. Alarms are to activate automatically if any level falls outside of the limits within which the emergency release system is fully operational.

5.2.7 Wherever practicable, control of the emergency release system is to be provided by a hard-wired system, fully independent of programmable electronic systems.

5.2.8 Computer based systems that operate or may affect the control of emergency release systems are to meet the requirements for Category III systems of UR E22.

5.2.9 Components critical for the safe operation of the emergency release system are to be identified by the manufacturer.

Additional guidance for tug owners/operators can be found in IACS Unified Requirement UR M79: https://iacs.org.uk/resolutions/unified-requirements/ur-m/ur-m79-rev1-cln

Vessels towing without the facility of a quick release system will not be accepted for ship towage operations by the PLA.

Annex 4 – Condition and suitability of Certificated Towing Ropes

Tugs shall be equipped with a sufficient number of certificated towing ropes that are suitable for their operation.

Towlines must be adequate for the tug's maximum bollard pull with a factor of safety ≥ 2,0 (i.e. twice the Maximum Steady Bollard Pull).

Annex 5 – Condition and suitability of the Tug's Fendering

A robust and efficient fendering system is to be fitted in areas intended for pushing. The fendering system purpose is to distribute the pushing force and limit its dynamic component on the hull structure of both the tug and the assisted ship.

For the purpose of this requirement, it is considered that during pushing operations, the contact between the tug and the assisted ship is maintained and that no bouncing (e.g. under wave action) is taking place. Forces resulting from bouncing loads are not taken into consideration, as it is understood that pushing operations (in waves) are normally halted when bouncing starts taking place (due to operational difficulties to keep position within the pushing area of the assisted ship as well as to control the associated impact type loads).

Annex 6 – Considerations for Ship Towage Operations involving conventional tugs

Conventional stern-drive tugs engaged in Ship Towage Operations must be capable of rigging a gob rope/wire to improve stability and reduce the risk of girting. The consideration to use a gob rope/wire during Ship Towage Operations should be appropriately risk assessed by the Master.

A gob rope/wire can be rigged either by using a length of rope/wire secured to the tug that passes through a fairlead or appropriate bollard on the centre line of the work deck. Another method of rigging a gob rope/wire is to have a separate gob rope/wire winch with the gob rope/wire leading through a swivel positioned at the centreline at the aft end of the tug. A shackle is used to slide along the towline and the winch is used to vary the length of the gob rope/wire. The length cannot be varied when the gob rope/wire is under tension.

If a single wire or chain gob wire system is used the connection point should be on the centreline of the tug and the length of the gob wire should not exceed half the distance to the protection rails or side bulwark.

It is important that the shackles and wires used are appropriate for the operator, certified and in good condition. Some small tugs or work boats may be fitted with centreline rings fitted into the aft part of the main deck from which the gob wire can be attached. These should be certified for use to take the weights applied and regularly checked to be in a good condition.

Other methods can be used to prevent a towing wire moving onto the tug's beam. For example, the fitting of stop or tow pins positioned on each quarter.

The use of the gob wire still requires the emergency quick release system to work correctly. The method of quick release must be known to those who are likely to be on the bridge.

Vessels towing without the facility of a compliant quick release system will not be accepted for Ship Towage Operations by the PLA.