



## SAFETY MANAGEMENT PLAN (MARINE)

### Annex D

# TOWAGE GUIDELINES FOR THE GLOUCESTER HARBOUR



**August 2018**

## Version History

<b>Version</b>	<b>Reason for Change</b>		<b>Date</b>
I.0	Original Document		1 December 2011
I.1	Revised small craft requirements		3 February 2016
I.2	Revised visibility requirements		24 March 2017
I.3	Amendments to tug and vessel definitions and operating procedures		10 August 2018

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# **Guidelines and requirements for vessels undertaking towage or assistance operations within the Gloucester Harbour.**

## **I. Introduction.**

Gloucester Harbour Trustees is committed to ensuring that all towage and tug assistance operations within the harbour area are carried out in a safe and controlled manner, using suitably-configured vessels operated by experienced crew.

The following guidelines and requirements relate to all towage and vessel-assist operations within the Gloucester harbour.

Such operations may include the provision of assistance to an operational vessel, the movement of 'dead' vessels and the movement of barges and floating equipment and plant into, out of or within the harbour area.

The guidelines and requirements form part of the formal risk assessment process and are under continuous review. They are produced following consultation with the harbour authority, authorised pilots and a limited number of other persons having towage experience.

The guidelines and requirements are intended to assist ships masters, agents, pilots and the harbour authority in facilitating the safe and effective movement of vessels.

In all circumstances the master/pilot and tug master shall as part of the passage plan and risk assessment process agree how the operation will be conducted, what dangers are associated with towing in restricted visibility and what risk reduction measures should be applied. When completing this assessment the following should be considered:

1. Type of tug, propulsion method, towing from winch or hook and location of winch/hook
2. Manoeuvring characteristics and limitations of the tug when made fast
3. Proposed method of towing
4. Operational status of navigational aids and equipment
5. Minimum speed to maintain steerage of vessel to be assisted
6. Movement of other vessels in the area
7. Navigational characteristics of the particular area of the harbour
8. Contingency plan should visibility deteriorate after the tow has commenced and/or if the tug has to disengage at any stage of the operation

Additional discussion concerning towing operations may be necessary in view of prevailing weather and tidal conditions and any other special circumstances.

**In ALL cases a towage plan (including minimum speed) must be submitted to the harbour authority a minimum of 24h in advance of the proposed time of commencement of the operation. Failure to comply with this requirement will result in delay.**

## **2. Vessels Required to Have Tug Assistance.**

Gloucester Harbour Trustees may, at their discretion, determine that certain vessels shall require assistance from one or more tugs. Such vessels shall hereafter in this document be known as "Vessels Required to Have Tug Assistance". They will typically be commercial ships of significant size that are single screw and do not have bow thruster(s) and may not have stern thrusters or high efficiency rudders. Vessels that fit this description and are of 120m LOA or above are most likely to be Vessels Required to Have Tug Assistance, but other vessels may also be thus classified if Gloucester Harbour Trustees have any reason to have concerns about their manoeuvrability, especially in making their approach to and entry into Sharpness.

## **3. Requirements for tugs.**

- (a) A tug contracted to assist a Vessel Required to Have Tug Assistance shall meet the following minimum criteria:
- Be capable of both pulling and pushing as directed by the pilot or Master
  - Be capable of repositioning under load and whether or not the towed vessel is making headway (e.g. twin screw and bowthruster or minimum single screw and thruster)
  - Be fitted with approved quick-release arrangements
  - Be fitted with a winch and licensed towing gear (the use of ships' mooring ropes as towing lines is not permissible)
- (b) A vessel not meeting any of the above requirements shall not be secured to the Vessel Required to Have Tug Assistance
- (c) Towing and assistance options shall only be conducted when:
- Weather conditions are favourable
  - Tidal ranges are within predicted limits
  - No adverse local activity or conditions are expected

## **4. Special Directions**

The final decision on the disposition of tugs rests with the master of the vessel in consultation with the pilot. However, the harbour authority reserves the right to issue a Special Direction requiring a vessel to take a tug(s) and comply with any conditions relating to safe movement of the vessel.

## 5. Planning and Notification

To assist in pre-arrival planning the following information must be provided to the harbour authority a minimum of 24 hours before the proposed movement.

- (a) in respect of the vessel to be towed or assisted:
- General Arrangement drawings and asset plans for the vessel to be towed or assisted,
  - Dead slow speed,
  - Type of rudder,
  - Whether gearbox, direct start or controllable pitch,
  - Delay in engine commands
- (b) in respect of the assisting vessel:
- Number of engines and configuration of screws
  - Certified bollard pull and engine power
  - Characteristics of tow line
  - Limitations of ahead and astern operation when made fast
  - General Arrangement and asset plan

In the event that the full capabilities of a tug are considered unnecessary, a workboat may be deployed but there shall be no plan or requirement to make it fast to the vessel under assistance.

## 6. Underkeel clearance

The minimum acceptable underkeel clearance for all vessels navigating within the Gloucester harbour is 1.0m

## 7. Towage operations in restricted visibility

Towing in restricted visibility poses the most serious threat to the safety of the tug, its crew, and other harbour users.

Restricted visibility is any occasion where visibility is, or is expected to, reduce to a distance where the tugs normal ability to perform may be impaired. Such restrictions in visibility could be due to fog, mist, snow, rain, sleet or any other conditions which impair visibility.

Restricted visibility procedures will be activated for all vessels when visibility is expected or reported to be less than 1 mile. These procedures are set out in the Safety Management Plan.

**NB: No tug should be made fast to a vessel when unable to maintain sight of the adjacent shore or point of navigational relevance or significance.**

All towage operations in restricted visibility should be conducted with the assisted vessel maintaining minimum speed. A minimum speed of at least 4 knots is required.

The tug master should immediately inform the pilot/master or harbour authority of any concerns that he may have as to the safety of his tug and crew. The pilot and tug master should take immediate action to ensure the safety of both the tug and the assisted vessel. If necessary the operation should be aborted as soon as it is safe to do so.

## **8. Guidance for small commercial vessels engaged in towing operations, barge and non-powered vessel operations**

(a) Within the Gloucester harbour, occasional towing operations may take place involving small vessels.

(b) When operations involving small vessels (e.g. coded vessels, non-coded vessels, barges or vessels without propulsion and/or crew) are proposed, other than in an emergency, a towage plan/method statement must be submitted to the harbour authority a minimum of 24h in advance of the proposed time of commencement of the operation. A checklist is provided for the assistance of operators. The towage plan/method statement must include the following detail:

1. Which port the barge/vessel is going to or coming from
2. Arrangements for recovery and streaming emergency towline
3. Communication method between barge and tug
4. Confirmation that the level of qualification and training of personnel manning the barge and tug is at least the minimum required for the class of vessel and area of operation, including any necessary local knowledge and towing endorsements
5. Dimensions of barge/vessel and tug including details of any cargo carried by the barge
6. Minimum speed of tow
7. Arrangements for lighting (to comply with Colregs)
8. Confirmation that a general health and safety risk assessment has been carried out in accordance with the requirements of The Merchant Shipping and Fishing Vessels (Health and Safety at Work) Regulations 1997

**NB: The towage plan/method statement must be completed and submitted to the harbour authority before commencement of the operation.**

(c) For vessels coming from and going to sea the operator must declare that the vessel(s) is(are) coded/certified for the intended area of operation. Copies of the relevant certification for the towing and towed vessels must be provided. Failure to comply with this requirement will result in delay.

Such certification will include as a minimum SCV2 or other Certificate of Compliance, Loadline Exemption Certificate and confirmation of appropriate insurance.

- (d) For tows proceeding from inland waters to sea the operator must also declare that the towed vessel(s) are watertight, weathertight and will reach their destination safely with regard to the sea and weather conditions which are likely to be encountered en-route.
- (e) For vessels which are not certified to operate at sea (“non-coded” vessels) and which thus operate solely within categorised waters the operator must declare that the vessel is fit for purpose and confirm compliance with the relevant regulations for Class IX(A) vessels which relate to the carriage of Life Saving Appliances and fire fighting equipment. These can be found in:-
- The Merchant Shipping (LSA) Regulations 1999, and
  - The Merchant Shipping (Fire protection: Small Ships) Regulations 1988.
- (f) Owners and operators are reminded that pilotage directions may apply if the combined length of each of the towing and towed vessel(s) exceeds 30m, regardless of vessel configuration.



## Annex I

**Application for towage operation to be submitted to the harbour authority at least 24h prior to entering harbour limits.**

**NB A vessel to be used as a tug must fulfil the following minimum criteria:**

- Be capable of both pulling and pushing as directed by the pilot or Master
- Be capable of repositioning under load and whether or not the towed vessel is making headway (e.g. twin screw and bowthruster or minimum single screw and thruster)
- Be fitted with approved quick-release arrangements
- Be fitted with a winch and licensed towing gear (the use of ships' mooring ropes as towing lines is not permissible)

<b>VESSEL AND CREW DETAILS (PART A)</b>	
Towing vessel:	Towed vessel(s):
Name:	Name / type:
Length overall (m):	Length overall (m):
Bollard Pull / hp:	Powered / unpowered*
Does the vessel comply with the minimum criteria for a tug as set out above? Y/N*	Manned / unmanned*
	Cargo:
Proposed date of tow:	Minimum speed of tow (kts):
From:	To:
Crew qualifications (e.g. STCW/MCA/RYA)	
Vessel certification (e.g. Coded/uncoded)	
Towage insurance details:	

**TOWING EQUIPMENT (PART B)**

Type of tow line: wire / synthetic / combination*	Max. length of tow line (m):
Is an emergency towline rigged and accessible:	Yes / no*
Is lighting fitted as required by COLREGS?	Yes / no*
Is a method of quick release provided?	Yes / no*
Has method statement been provided?	Yes / no* (Copy to be provided to harbour authority)
Is all towing equipment certified?	Yes/no*

**MANDATORY COMPLIANCE (PART C)**

Life Saving Appliances	Yes / no*
Fire fighting equipment	Yes / no*
Risk Assessment (Health and Safety)	Yes / no* (Copy to be provided to harbour authority)
Loadline Exemption Certificate issued:	Yes / no* (Copy to be provided to harbour authority)
	* Delete as applicable

## Examples of information to be provided

### 1. General

Name: **Danasund**  
 Builder: **C.M Zumaia, Bilbao Spain**  
 Year: **2004**  
 Type: **Twinc Screw AHTS**  
 Class Society: **DNV GL 100A5 K(20)Working**  
 Flag/POR: **Denmark / Svendborg**  
 IMO #: **N/A**  
 PAX: **6 pers**

### 3. Dimensions & Capacities

LOA: **15.83m**  
 Breadth: **6.02m**  
 Depth: **2.62m**  
 Max Draft Aft: **1.90m**  
 DWT / NT / GT: **0 DWT / 15.5 NT / 48.5 GT**  
 Cargo Deck Area: **36 m2**  
 Fuel Capacity: **14.5 cubm**  
 GMDSS Trading Area: **A1**

### 2. Performance & Machinery

Max BP & Date: **13.5 M/Tons - 27.05.2004**  
 Speed & Consumption: **10 knots @ 1.5 cubm per 24h**  
 Type/Grade of Fuel: **MGO <0.1% sulphur content**  
 BHP & # of ME's: **2 x 400 BHP**  
 ME Builder: **Iveco 8210-SRM 45.10**  
 Aux Engines: **Iveco 8045-M08 - 32 kW**  
 Bow Thruster: **N/A**  
 Propulsion: **2 fixed props in nozzles**

### 4. Towing Equipment

Tow Winch: **20t El Ferrol**  
 Tow Wire: **250m of Ø 30mm steel wire**  
 Spare Wire:  
 Stern Roller: **Yes**  
 Towing Pins: **Yes, Manually operated**  
 Deck Crane: **2.2ts @ 10 m**  
 MOB Boat: **N/A**  
 Aux. Equipment: **Towing Hook**

### Towing Equipment onboard:

Type:	Issued:	Certificate No.:	Description:
Main Towing Wire	09-07-10	265710-3	250 M / 30 MM / 64.000 kp
Socket Main Wire	11-04-13	A13068	31-36 MM
Wire Bridles 1	12-02-14		1 x 10 M / 24 MM / 41000 kg
Emergency Tow Line 1	13-04-10	FA/264176	1 x 110 M/48 MM / 41,3 TS BL
Emergency Tow Line 2	28-07-10	FA/271763	1 x 82 M/48 MM/MBL 41,3 TS
Emergency Tow Line 3	08-06-12	08.06.12	1 x 110M/64 MM/64.000 kgs
Shackles 1	07-12-07	A011471	6 pcs @ 17 Tons SWL
Shackles 2	10-12-07	A011701	3 pcs @ 17 Tons SWL
Shackles 3	07-12-07	A011472	6 pcs @ 12 Tons SWL
Shackles 5	06-05-13	3152594	6 pcs @ 17 Tons SWL
Shackles 6	28-02-12	No.68	1 pc @ 35 Tons SWL

**European Tugowners Association**

**Guidelines for Safe Harbour Towing Operations**

This comprehensive and informative document is essential reading for persons involved in harbour towing and vessel assistance operations.

It may be downloaded from the ETA website at the following link:

<http://eurotugowners.com/wp-content/uploads/2017/11/STP-Guidelines-First-Edition-February-2015.pdf>