



Forth Ports

Port of Dundee

Marine Guidelines and Port Information

Contents

- 1.0 Docking and Sailing Guidelines and Voluntary Tug Code
 - 1.1 Introduction
 - 1.2 Dundee Guidelines
 - 1.3 Towage – Minimum Bollard Requirement
 - 1.4 Tug Fleet

- 2.0 Ruling Depths and Under Keel Clearance

- 3.0 Visibility Parameters

- 4.0 Towage Operations in Restricted Visibility

- 5.0 Dundee wind parameter

- 6.0 Tay Rail and Road Bridges maximum air draught

- 7.0 Barge Operations

- 8.0 Use of Boatmen

- 9.0 Testing Engines Astern before berthing at any Port, Harbour, Dock or Terminal

LIST OF AMENDMENTS

DATE

PAGE NUMBER

December 2008

First Edition

1.0 DOCKING AND SAILING GUIDELINES AND VOLUNTARY TUG CODE

1.1 Introduction

The following revised Guidelines have been drawn up for the Port of Dundee.

The Guidelines form part of the formal risk assessment process and are continuously under review in the light of operational experience. There has been extensive consultation between the Port Authority and the Tay Pilots while producing these Guidelines.

It is not intended that these Guidelines are a rigid set of regulations or rules to be followed on all occasions, they are intended as guide to ships masters, agents, pilots and the Port Authority to allow safe and effective scheduling of vessels.

Further discussions on some occasions may be required between the Duty Pilot, Forth and Tay Navigation Service and the vessel's Master, taking into account the prevailing weather and tidal conditions and any other special circumstances.

The final decision on the number of tugs required rests with the Master of the vessel, in consultation with the pilot.

However the Port Authority reserve the right to require a vessel to take a tug or comply with any special instruction which may be considered necessary according to the particular circumstances of the case.

The following assumptions have been made in preparing these guidelines:

- Standard Ship – single screw with no bow/stern thrusters, high efficiency rudder or other manoeuvring aids.
- Favourable weather conditions.
- Tidal Ranges within predicted limits.
- No adverse local activity and/or conditions.

Non-standard vessel will be assessed on an individual basis.

The Guidelines are presented in a tabular form; the tables contain an identification letter indicating tidal constraints followed by a numerical indication of the number of tugs recommended.

1.2 Dundee Guidelines

The information detailed below refers to STANDARD SHIPS, which are single screw with no Bowthrust. Standard meteorological conditions of maximum wind gusts not exceeding 25 knots and good visibility also apply.

U Unrestricted **F** Not during ebb
 Numerical indicates tug numbers

These guidelines should be regarded purely as a starting point for discussions with the Port Authority, Duty Pilot, Master and Agent on tug allocation and scheduling. Actual tug allocation may be increased or reduced as appropriate. The guidelines should not be construed as any form of regulations.

Vessel Length (metres)	Tugs #				Mooring boat
	Inbound		Outbound		Berthing only
	Flood	Ebb	Flood	Ebb	
<90m	U0	U0	U0	U0	0
90 – 120m	U0*	U0*	U0*	U0*	0*
120 – 150m	U1**	U1**	U1	U1	1
150 – 180m	U2	F	U2	F	1
>180m	U3	F	U2	F	1
Tankers >230m	U4	F	U3	F	1
Oil Rigs	Pre-planned	F	Pre-planned	F	Pre-planned

* No tug or mooring boat required unless standard vessel 110m –120m, which may require a tug for berthing port side to (pst). This is to be agreed in advance between, Harbour Master, Pilot and Agent.

** “Reefer” standard vessels over 120m PST will require 2 tugs for berthing.

- Tidal range: Spring 5.0m, Neap 2.2m
- Scheduled times are: Inbound – Fairway buoy, Departure – from berth
- Under Keel Clearance: 0.5m
- Recommended Bollard Pull will be catered for in a separate document

Pilots should report to FTNS on vessel manoeuvrability after first visit for comment entry into IPOS.

1.3 Towage Minimum Bollard Pull Requirement

The following tables are a guide to the minimum combined bollard pull requirement for tug allocation in conjunction with the Port of Dundee Berthing and Sailing Guidelines and “Voluntary Tug Code”. As with the Code these tables are guidelines and are not intended as a rigid set of rules and regulations.

When allocating 2 or more tugs to a job consideration must be given to the mix of tugs to ensure that there is an appropriate balance with the tugs employed.

	1 Tug	2 Tugs	3 Tugs	4 Tugs
90m - 120m	N/A or 20t*	N/A	N/A	N/A
120m – 150m	20t	40t	N/A	N/A
150m - 180m	20t	40t	N/A	N/A
> 180m	N/A	50t	70t	N/A
Tankers > 230m	N/A	N/A	70t	100t

* Standard vessel 110m – 120m may require a tug for berthing port side to

1.4 Tug Fleet

The following tugs operate on the Forth and Tay

Company	Tug Name	Bollard Pull	Type	LOA	Beam	Draft
Forth Estuary Towing - Leith	Fidra	50t	Voith	30.0m	11.0m	5.3m
	Oxcar	30t	Voith	30.0m	9.0m	4.6m
	Beamer	19t	Voith	28.8m	8.6m	4.0m
	Seal Carr	19t	Voith	28.8m	8.6m	4.0m
BP/Targe Towing – Hound Point	Hopetoun	124t	ASD	43.5m	13.5m	6.7m
	Crammond	62t	ASD	34.3m	10.5m	4.6m
	Dalmeny	62t	ASD	34.3m	10.5m	4.6m
Svitzer Towing - Grangemouth	Forth	37t	Voith	30.6m	9.8m	4.5m
	Rosebury Cross	37t	Voith	30.6m	9.8m	4.5m
Rosyth Marine Services - Rosyth	St Margaret	13.0t	Voith	22.3m	7.4m	3.9m
	Elkhound	17.0t	Conventional twin screw	28.7m	7.7m	3.2m
	Deerhound	17.0t	Conventional twin screw	28.7m	7.7m	3.2m
	Isabel	3.5t	Voith	18.2m	5.2m	3.4m
Targe Towing - Dundee	Collie T	20t	Twin screw nozzles	26m	10m	4m
	Deidre	20t	Single screw nozzle	27m	10m	4m

2.0 UNDER KEEL CLEARANCE

The minimum permitted under keel clearance for all vessels navigating on the River Tay is 0.5m.

3.0 VISIBILITY PARAMETERS

Minimum visibility criteria for vessels entering or departing the Port of Dundee

Vessel Size (meters)	Berthing (Distance miles)	Sailing (Distance miles)
<90m	0.5	0.25*
90m – 150m	0.5	0.25*
150m – 180m	0.5	0.5
Tankers >230m	1.0	1.0
Oil Rigs	2.0	2.0

* Vessels transiting bridges minimum 0.5 miles

- When the Tay road bridge is not visible from Port Control visibility is less than 0.5 miles

4.0 TOWAGE OPERATIONS IN RESTRICTED VISIBILITY

- 1 The Port of Dundee has parameters in place to ensure that the docks are closed to shipping movements during periods of restricted visibility. However, there could be occasions when despite the docks being closed to vessels; towage operations may already be in progress on the river
- 2 These procedures apply to all towage operations in the river being conducted in restricted visibility.
- 3 Restricted visibility is all circumstances 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.
- 4 In circumstances where restricted visibility exists, or is likely to exist, 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:
 - (i) Type of tug, propulsion method, towing from winch or hook and location of winch/hook.
 - (ii) Proposed method of towing.
 - (iii) Operational status of navigational aids and equipment.
 - (iv) Minimum speed to maintain steerage of vessel to be assisted.
 - (v) Movement of other vessels in the area.
 - (vi) Navigational characteristics of the particular area of the river/port including the use of information from Vessel Traffic Services (VTS).

- (vii) Contingency plan should visibility deteriorate after the tow has commenced and/or if the tug has to disengage at any stage of the operation.
- 5 Minimum visibility for all towage operations is 370m (two cables) or the assisted vessels length if greater, and such that the Master/Pilot can see the tug and the Tug Master can see the towed vessel wheelhouse.
 - 6 Should visibility fall below the minimum once a towage operation has commenced the Pilot shall immediately reduce speed to a minimum safe speed and if safe to do so take all way off the vessel. Following discussion with the tug master the contingency plan discussed and agreed at the planning stage will be implemented. This could include one or more of the following:
 - (i) With all way off the vessel let go the tugs and anchor the vessel.
 - (ii) With all way off if required use the tugs to turn the vessel, let go the tugs and the vessel proceeds either to an anchorage or to the outer estuary.
 - (iii) Let go the tugs and have the tugs assist in a pushing mode.
 - (iv) With all way off the vessel allow under the pilots instructions the tugs to manoeuvre the vessel. This may include using the tugs to maintain the vessels position at a safe location in the river.

The agreed course of action should be fully communicated to FTNS.

- 7 All towage operations in restricted visibility should be conducted with the assisted vessel maintaining minimum speed. An approximate maximum speed of 6 knots should be considered. If a vessels minimum speed is higher than 6 knots this will be a major factor to consider in the planning stage of the operation.
- 8 The Tug Master should immediately inform the Pilot/Master 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 assisted vessel, if necessary they should abort the operation as soon as it is safe to do so.
- 9 There should be a pro-active point that is made to highlight that a tug proceeding to a job should report any lack of visibility and report such to FTNS and the vessel that they are rendezvousing with.

5.0 DUNDEE WIND PARAMETERS

Wind speed is for a steady wind, measured from the most appropriate anemometer position. Anemometers are located at Buddon Ness, Port Control, Tay Road Bridge and hand held.

Vessel Size (meters)	Wind Parameters (knots)	
	Berthing ()	Sailing
<90m	At discretion of duty Pilot (transit vessels <= 40kts)	
90m – 150m	At discretion of duty Pilot	
150m – 180m	<=25kts	<=25kts
Tankers >230m	<=25kts	<=25kts
Oil Rigs	<=16kts	<=16kts

6.0 Tay Rail and Road Bridge maximum Air Draughts

Tay Road Bridge <22 metres

Tay Rail Bridge <22 metres

7.0 BARGE OPERATIONS

When operations involving barges or vessels without propulsion and/or crew are booked the agent or barge operator should provide a method statement. This method statement should include the following detail:

- Which port/berth the barge/vessel is going to or coming from.
- Berthing plan and mooring plan arrangements, confirming that there are sufficient mooring ropes available and appropriate mooring bollards on both the barge and quay.
- Arrangements for recovery and streaming emergency towline.
- Communication method between barge and tug(s)
- Do appropriately trained personnel man the barge/vessel, if not what arrangements in place for embarking or disembarking suitable trained personnel.
- Who will tend the moorings both during arrival/sailing and during the barges stay alongside?
- Number of tugs required.
- At what location will the deep sea tug hand over to the harbour tug(s) and vice versa?
- Is an escort tug required in the river?
- Any assisting craft involved in the operation other than the tugs. e.g. craft for transferring personnel.
- Dimensions of barge/vessel, including details of cargo carried by the barge.
- Who will be responsible for the barge while alongside, contact details to be provided?

Agents and operators of barges are reminded that only tugs licensed by Forth Ports can undertake towage operations within the ports on the Tay. Crews from harbour tugs are not contracted to either provide mooring ropes or act as riggers or boatmen for the movement of barges/unmanned vessels.

The barge proforma must be completed by the agent/operator and approved by the pilot and FTNS before operations commence.

8.0 USE OF BOATMEN

The procedure for the Port of Dundee, requires all vessels making fast or letting go at all berths in the port to use the services of the licensed boatmen. Details are available from Ship's Agents, FTNS and Dundee Harbour Master.

9.0 TESTING ENGINES ASTERN BEFORE BERTHING AT ANY PORT, HARBOUR, DOCK OR TERMINAL

All vessels should test their engines astern before entering any lock system or Berthing at any port, harbour, dock or terminal.

Any defects or failure of the engine to go astern should be reported to FTNS and the berthing/docking aborted.