

Training Record Book

Voluntary Towage Endorsement Scheme



General Towage

Ship Assist Towage

Sea Towage

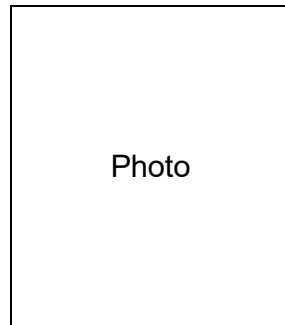
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Contact details

Candidate



Name:	
Date of Birth:	
Discharge Book or CoC #:	

Company

Company:		
Address:		
Tel:		Fax:
Email:		

Master / Company Training Officer (CTO)

Master:	
Signature:	
CTO Name:	
Signature:	

If this record book is found please return it to one of the above

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Section 1

1.1 Purpose of the Training Record Book

This Training Record Book (TRB) is published by National Workboat Association (NWA) and is approved by the Maritime Coastguard Agency (MCA) for use by candidates working towards recognised voluntary towage endorsement.

Properly used, the TRB will ensure that the candidate receives systematic practical training and experience in the tasks, duties and responsibilities required, and provide a comprehensive record. Appropriate periods should be set aside for on-board training within the normal operational requirements of the vessel.

Section 2 contains the tasks that give direction to the training and experience gained on board and required as evidence of performance. The TRB will also assist companies in monitoring experience and skills.

Candidates should complete all tasks that are relevant to the type of vessel they are deployed on.

It is the responsibility of the candidate to ensure that the TRB is properly maintained and completed.

It is the responsibility of the Master and other staff on board to manage and supervise the on-board training, sign tasks when they have been properly completed, and maintain reports on the candidate's progress.

Note: If the candidate is the Master, then the Company Training Officer, another vessel Master, the Marine Superintendent, Operations Manager or other person appropriately qualified and experienced to judge the Master's performance will be able to undertake this function.

1.2 Guidance for the Candidate

The TRB is an important document and you are responsible for its upkeep and safekeeping during your training. On receiving your TRB you should complete the contact information on the first page.

At the start of your training you should find out who is responsible for managing your training. This will normally be the Master or another experienced and certificated person as described above. You should discuss your training with them at the start of each trip. The practical training undertaken at sea must be planned and structured in a way that enables you to acquire and practise skills and to demonstrate your proficiency in the tasks listed. Each task should build on those already completed, both on previous vessels and during the current trip. You should be given information and guidance as to what is expected of you and how the training will be organised.

If you have difficulty completing any of the tasks in your TRB you should contact the Master, or the Company Training Officer (CTO) for advice and guidance at an early stage.

Section 2 should be used to record your qualifying sea service contains the training tasks you must complete and get signed.

1.3 Guidance for Masters, Officers and Company Training Officers (CTO)

Please read the candidate guidance on the previous page, so that you are aware of what the candidate has been told about their shipboard training and the use of the TRB.

As soon as possible after joining a vessel they should be informed as to who will be the person organising and supervising their training. They should insert their name at the start of section 3.1, along with the Company Training Officer (CTO), whose details also need to be recorded on the first page of the TRB.

It is the Master (or CTO's) responsibility to give candidates detailed information and guidance as to what is expected of them and how their training on board will be organised. They should check the candidate's progress to date and to help organise their duties in order to develop their experience and complete the training tasks within the vessel's operational requirements.

The Master (or CTO) should review the candidate's progress on a regular basis and it is wise to agree a regular time when the candidate prepares and hands the TRB in for inspection, in order to establish a routine and ensure an efficient process.

The Master (or CTO) should provide a monthly progress review and record comments in section 3.4, and complete and sign the sea service testimonial in sections 2.1.1, 2.2.1 and/or 2.3.1 as appropriate. This will be required by the candidate as evidence of sea time when applying to the Recognised Bodies for certification.

Any experienced and certificated sea staff with supervisory responsibility for the candidate when they are carrying out TRB tasks (or the CTO) are eligible to sign the tasks to say that the candidate is either making progress or is deemed to be proficient in the task. All such staff should first complete the specimen signature details on the "Contact Details" section in the front of the TRB, which is required by the Recognised Bodies to ensure that evidence of task completion can be verified.

1.4 Details for Recognised Body

National Workboat Association
21 Southcote Close
Bacchus Lane
South Cave, Brough
HU15 2BQ

Tel: 01430 470013 (Secretary)
Mob: 07834 866124
Email: secretary@workboatassociation.org

Section 2

Training Tasks and Record of Service for each endorsement

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2.1.2 General Towage

		Proficient	
	Task / Duty	Master's Initials	Date
GT 1	Internal Communications		
1.1	Conduct a pre-tow briefing with crew		
1.2	Make appropriate use of hand signals and state the importance of non-verbal signals		
1.3	Make appropriate use of hand held radios and state the importance of correct radio procedures		
1.4	Make appropriate use of on-board CCTV		
1.5	Make appropriate use of on board alarms, signage and announcements		
GT 2	External Communications		
2.1	Conduct tow set up briefing with external stakeholders		
2.2	Agree terminology with pilot		
2.3	Communicate appropriately with other tugs and vessels		
2.4	Make appropriate traffic reports to VTS /Harbour Master/ Port Control / Coastguard		
GT 3	Emergency Procedures		
	Explain the actions to be taken in the event of:		
3.1	Failure of towing lines and equipment		
3.2	Failure of gog arrangements		
3.3	Failure of engines, steering, electrical systems		
3.4	Failure of steering gear		
3.5	Failure of electrical systems		
3.6	Loss of external communication to pilot /port control etc		
3.7	Mechanical problem on the towed vessel		
3.8	Rope in propulsion system		
3.9	Compromise of watertight integrity of tug when towing		
3.10	Collision		
3.11	Grounding of tug and/or tow		
3.12	Man overboard		
3.13	Fire		
3.14	Pollution		
3.15	Demonstrate the use of the emergency controls		

		Proficient	
	Task / Duty	Master's Initials	Date
3.16	Demonstrate the deployment of the emergency tow line		
3.17	Demonstrate the emergency release of the tow		
3.18	Demonstrate the management of an emergency exercise on board		
3.19	State the statutory requirement to render assistance to a vessel in distress		
3.20	Explain the difference between responding to a vessel in distress and rendering salvage assistance		
GT 4 Fitness for Purpose			
	For an intended passage:		
4.1	List the documentation required for the tug		
4.2	List the documentation required for the tow		
4.3	Estimate the tug requirements for the tow		
4.4	Assess fitness and suitability of navigation equipment for proposed passage		
4.5	Assess number, experience and qualifications of crew		
4.6	Assess the watertight integrity of the vessel		
4.7	Assess the suitability of the available towing equipment		
4.8	State the purpose of a warranty survey		
GT 5 Local knowledge and passage planning when towing			
	Construct a passage plan for a voyage and demonstrate to the Master that you have additionally taken the following points into account:		
5.1	Effect of local conditions on the tow e.g. wind, tide, depth, localised tidal effects 'run off', interaction (squat, canal effect) effect of propeller wash, currents, and berths		
5.2	Local traffic conditions, pilotage and port movements		
5.3	Effect of wheel over on tow position		
5.4	Track of tow in narrow channels		
5.5	Identification of suitable places of refuge and safe havens		
5.6	Use of additional tugs at critical points in the passage		
5.7	Consideration of grounding between tides (Ebbing up)		

		Proficient	
	Task / Duty	Master's Initials	Date
GT 6	Safe Towage Operation		
	When preparing to undertake a towage operation:		
6.1	Describe the principal risks and method of assessment		
6.2	Discuss the reasons for the towage method to be used		
6.3	Carry out an inspection of the tow		
6.4	Identify suitable towage points and the chafing areas		
6.5	Identify the characteristics of the tow		
6.6	Ensure that rigging and deployment of the towing gear is correct		
6.7	Demonstrate the safe handling of the towing gear		
6.8	Identify safe areas on deck		
6.9	Identify need for adequate lighting of working areas		
6.10	Identify the stability of the tug and tow		
6.11	Prepare a passage plan		
6.12	Identify local byelaws that may affect the operation		
6.13	Identify where different phases of the tow may require different towing requirements		
6.14	Identify berthing arrangements on arrival		
	On passage		
6.15	Assess that the connecting, letting go and changing of the towing gear is safe		
6.16	Demonstrate how to monitor the tow and take timely and effective corrective action when required		
6.17	State the importance of avoiding large dynamic forces on the tow line		
GT 7	Towing Equipment		
	Loose equipment		
7.1	Identify Safe Working Load for loose equipment		
7.2	Locate and identify test certificates for ropes, wires, chains, shackles and other towing gear		
7.3	Demonstrate care and maintenance of all loose gear		

		Proficient	
	Task / Duty	Master's Initials	Date
7.4	Identify and demonstrate the use of:		
	gogs, (gobs), bridles and V ropes		
	towing bridles, stretchers and chafe chains		
	shackles and their securing		
	face plates (monkey plates)		
	stoppers		
	towing pins, shark jaws and other line restraining devices		
	anti-chafe devices		
	Fixed equipment		
7.5	Identify and demonstrate the use of:		
	bits		
	bollards		
	tug samson posts		
7.6	Demonstrate routine maintenance of winches and capstans		
7.7	Know the types and limitations of winches and capstans		
7.8	Demonstrate use of the controls, brakes and emergency release of winches and capstans		
7.9	Identify and demonstrate use of tension measuring devices		
7.10	State the types and limitations of towing hooks		
7.11	Demonstrate the use of towing hooks including release mechanisms		
7.12	Demonstrate routine maintenance and testing procedures		
7.13	Identify and demonstrate use and routine maintenance of fairleads, rollers and towing brackets (e.g. SMIT bracket)		
7.14	Identify and explain the use and routine maintenance of different types of fendering and their securing methods		
GT 8	Propulsion Systems and Tug Types		
	Describe the operation of the following:		
8.1	Azimuth propellers - 360° steerable propellers (Z pellers)		
8.2	CPP – Controllable pitch propeller(s)		
8.3	FPP – Fixed pitch propeller(s)		
8.4	VS – Voith Schneider (vertical propeller blades)		

		Proficient	
	Task / Duty	Master's Initials	Date
8.5	Steerable nozzles		
8.6	Shrouded nozzles e.g. Kort type		
	<i>Then demonstrate the operation of the type fitted to assessing vessel</i>		
GT 9	Differentiate the following tugs in terms of towing point with respect to the propulsion system:		
	<i>Propulsion forward of midships with a towing point aft:</i>		
9.1	Tractor tugs with Voith Schneider		
9.2	Tractor tugs with Azimuth propellers		
	<i>Propulsion aft and towing point near midships:</i>		
9.3	Conventional type – single or twin FPP or CPP		
	<i>Intermediate tug types – dependent on method of operation</i>		
9.4	Reverse tractor or pusher tugs		
9.5	Combi tugs – modified older tugs with a 360° steerable thrusters in the bow		
9.6	ASD – azimuth stern drive		
GT 10	Describe the main characteristics of the following vessel types according to function		
10.1	Seagoing tugs		
10.2	Escort tugs – passive or active		
10.3	Harbour/ship assist tugs/Carousel tugs		
10.4	Anchor handlers		
10.5	Craft tugs, workboats and Multicats		
10.6	Pusher tugs including combination units		
10.7	Line handlers		

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2.2.2 Ship Assist Towage

		Proficient	
	Task / Duty	Master's Initials	Date
SAT 1	Ship Assist Towage Tasks / Duties		
1.1	Demonstrate an understanding of the limitations of point load on ships' hulls.		
1.2	Describe the functions and limitations of different fendering arrangements.		
1.3	Discuss the dangers and pressure areas arising from the construction of ships when operating in close proximity, e.g. interaction forces, lines of sight.		
1.4	Discuss the correlation between the windage of a vessel, the expected weather conditions and the bollard pull of the tug.		
1.5	Demonstrate ability to react to loss of critical systems whilst in close proximity/made fast to assisted vessel.		
1.6	Describe the safe operation of the vessel in port in restricted visibility whilst conducting ship assist operations.		
1.7	Conduct a departure from berth and on completion, conduct a berthing alongside.		
1.8	Demonstrate ability to manoeuvre under free sailing conditions.		
1.9	Secure a barge alongside from a mooring and get underway.		
1.10	Demonstrate ability to manoeuvre and re-secure a lighter/barge.		
1.11	Take station as the bow tug on large ship movement, including a running catch up from the shoulder.		
1.12	Act as stern tug on large ship movement, including a running catch up.		
1.13	Secure as the alongside tug, including changing sides within a winding/re-berth evolution.		
1.14	Act as the push/pull shoulder tug on a berthing or sailing movement.		
1.15	Conduct lead bow tug into and/or out of tidal basin.		
1.16	Pick Up Bow to Bow (ASD).		
1.17	Demonstrate abort manoeuvres and recovery position.		
1.18	Demonstrate active winch control		
1.19	Take account of the hazards when using towed vessel's ropes, gear and securing points.		

		Proficient	
	Task / Duty	Master's Initials	Date
SAT 2	External Communications		
2.1	Participate in drawing up a large vessel berthing plan		
2.2	Communicate with other tugs and vessels using:		
	Standard protocols for power and direction		
	Locally agreed terminology		
SAT 3	Emergency Procedures		
	Explain the hazards and actions to be taken in the event of:		
3.1	Loss of critical systems on own tug		
3.2	Malfunctions of critical systems on assisted vessel		
3.3	Having to slip tow under load		
SAT 4	Fitness for Purpose		
4.1	Describe the factors that influence the choice of tug(s) for a particular operation		
4.2	Explain why the available tugs were used in a specific configuration		
SAT 5	Detailed Local knowledge		
5.1	Demonstrate to the Master a detailed knowledge of the local harbour area, including:		
	Berths, channels and buoyage		
	Tidal flows, currents and limiting depths		
5.2	Local Port Regulations		
5.3	Knowledge of Port Marine Safety Code as it relates to Port towage		
5.4	Local VTS services, including awareness of vessel movements		

		Proficient	
	Task / Duty	Master's Initials	Date
SAT 6	Safe Towage Operation		
6.1	Thorough knowledge of tug handling in a range of ship assist manoeuvres, including:		
	Direct and Indirect towage		
	Push/pull techniques		
	Escort Towing		
6.2	Demonstrate a detailed knowledge of interaction, with particular reference to:		
	Working in close proximity to large vessels		
	Bow to bow work with ASD / ATD tugs		
6.3	Demonstrate an appreciation of the importance of vessel stability and the need to maintain watertight integrity when towing under load conditions		
6.4	Knowledge of towing points and avoidance of girting in dynamic situations		
SAT 7	Towing Equipment		
7.1	Demonstrate a practical knowledge of capabilities of the following:		
	Towing Winches and Capstans		
	Towing Hooks		
	Different tow rope types (wire, synthetic rope, HMPE		
	Use of Pendants		
	Use of Grommets		
	Joining shackles and other connections		
7.2	Hazards and Limitations when using Assisted Vessel's Equipment, including SWLs of ship's Bitts and other securing points and Ship's ropes		
7.3	Describe means of Testing / Inspection of Towing equipment		
SAT 8	Propulsion Systems and Tug Types		
8.1	Demonstrate detailed knowledge of capabilities and limitations of different tug types, including Voith Schneider, ASD, ATD, and conventional single and twin screw		
8.2	Show an outline knowledge of 'Z' Tech, Rotor and Carousel tug types		

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2.3.2 Sea Towage

		Proficient	
	Task / Duty	Master's Initials	Date
ST 1	Pre Tow Inspection		
	The candidate must:		
1.1	Carry out an assessment of the vessel / object to be towed.		
1.2	Ascertain the dimensions of vessel / object to be towed.		
1.3	Identify the type and care of cargo, if any, to be carried in tow		
1.4	Obtain the contact details of agents at departure and arrival ports.		
1.5	Identify Pilotage requirements, if any, on departure, on passage and arrival		
1.6	Assess any expected requirement for additional tug assistance		
1.7	Assess current weather report for duration of voyage		
1.8	Consider the need for guard vessels		
1.9	Discuss the dangers and pressure areas arising from the construction of ships when operating in close proximity e.g. interaction forces, lines of sight.		
1.10	Explain the correlation between the windage of a tow, the expected weather conditions and the bollard pull of the tug.		
1.11	Ensure that there is appropriate certification for tow and its gear		
1.12	Establish communication and protocol between lead and subsidiary tugs		
1.13	Establish fuel requirements for voyage		
1.14	Ensure there is sufficient scope of gear for sea towage		
ST 2	Inspection of Tow		
2.1	Ensure watertight integrity e.g.; vents, watertight doors, hatches, port lights, deadlights etc to be closed		
2.2	Check draft and trim		
2.3	Ensure sufficient positive stability for the voyage		
2.4	Close all engine room inlet and outlet valves		
2.5	Check all sea fastenings		
2.6	Secure rudders and shafts		
2.7	Check towage arrangements		
2.8	Check navigation lights, shapes and sound signalling appliances		

		Proficient	
	Task / Duty	Master's Initials	Date
2.9	Check emergency towing arrangements ready for use		
2.10	Check boarding arrangements at sea		
ST 3	Conduct of the Tow		
3.1	Demonstrate heaving in and paying out towlines and adjustment of engine power.		
3.2	Explain the need to adjust the catenary of the tow wire, by shortening up and reducing power in shallow waters.		
3.3	State the need for a sufficient turning circle and the dangers of large and rapid alterations of course leading to an unwanted increase in the catenary		
3.4	Explain the need for slow and controlled alterations in engine power.		
3.5	Explain precautions to be taken when towing in bad weather, use of tow line length and engine power and heaving to.		
3.6	Demonstrate use of appropriate gog arrangement.		
3.7	Observe the behaviour of towed vessel		
3.8	Apply the International Regulations for the Prevention of Collisions at Sea, 1972, as amended, considering the manoeuvrability of the tow in:		
	Crossing situations		
	Using and crossing traffic lanes		
	Considering the use of RAM signals		
	Operation in restricted visibility		
	Sound signals		
3.9	Explain the effects tide and current on tug and tow		
3.10	Monitor weather forecasts in support of safety of navigation		
3.11	Demonstrate chafe avoidance on passage		
3.12	React appropriately to loss of critical systems whilst in close proximity/made fast to assisted vessel. If necessary this could be a simulated situation.		
ST 4	Towing Equipment		
4.1	Ensure all towing equipment is tested and test certificates are held on board.		

		Proficient	
	Task / Duty	Master's Initials	Date
4.2	Explain the industry standard sizing of ropes, wires, shackles and etc for sea towage in relation to the bollard pull of the tug.		
4.3	Describe the typical scope for Sea towage on ropes and on wires.		
4.4	Demonstrate towing winch operation when streaming and recovering tow.		
4.5	Describe the effect of the catenary of the towing wire.		
4.6	Identify alternative methods to minimise chafe at the tug and tow.		
4.7	Outline the Emergency towing gear arrangements now required on large vessels.		
ST 5	Fitness for purpose of tug, tow and crew competence		
5.1	Describe how suitable means of access to the tow is assessed and achieved.		
5.2	Explain the purpose of a broad white band at bow of tow above waterline		
5.3	Describe the rigging and streaming of emergency tow with break-away fastenings.		
5.4	List the considerations when undertaking an unmanned tow.		
5.5	Explain why the Tow is required to have a <u>Load line Certificate</u> , or Load line Exemption Certificate from the appropriate Flag Authority.		
5.6	List the main items covered by a Warranty Survey Explain the legal status and requirement for a warranty survey		
ST 6	Emergency Procedures		
	Describe the emergency procedures to effectively deal with the following situations:		
6.1	Towline failure to include consideration on action to take for:		
6.1.1	i. Recovery of parted line to tug including section remaining at tow		
6.1.2	ii. Clearing tow winch and rigging new tow line		
6.1.3	iii. Picking up of emergency tow, connecting to tug's gear		
6.2	Water ingress into tow.		

		Proficient	
	Task / Duty	Master's Initials	Date
6.3	Failure of sea fastening or other movement of equipment on tow.		
6.4	Tow taking charge in bad weather, and heaving to in extreme weather.		
ST 7	Importance of passage planning when undertaking a sea-tow		
7.1	Describe the planning that is required by the tug master for necessary third party tug assistance, disconnection and tying up of the tow at the places of departure and arrival.		
ST 8	Explain the Importance of Clear Communications at Different Stages of the tow		