

TOWING from Chris Corr



Reasons and actions to take.

The need for towing may arise for a number of reasons. One of the most common causes is engine failure (RNLI 2001).

A Skipper may find that his vessel is not under command for a number of reasons, engine failure, the lack of wind, the strength and direction of the tide or the lack of experience/knowledge of the crew.

If this occurs in a busy and congested area then the relevant port authority should be informed i.e.

Portsmouth and /or Southampton in the Solent. The Coastguard (CG) should also be advised in case the situation should change, and the vessel gets into real difficulties, and /or requires urgent assistance. The CG can arrange assistance should it be necessary. They prefer to be advised early rather than late to avoid delays should the situation deteriorate.

Skippers should always consult and take the advice of the professionals wherever possible; that is why they are there.

The CG service nowadays is designed around radio communications that is why an efficient and working VHF set is essential, and why it is important to test the system before getting underway.

Note under GMDSS Channel 13 is now the big ship bridge-to-bridge safety channel. This can be used in addition to channel for communicating with commercial vessels.

Salvage:

The question of Salvage causes some skippers a great deal of concern. The Skipper's number one priority is to look after the crew and save lives. He must also ensure that he does not endanger any other vessel.

The acceptance of a towline from another boat does not automatically entitle them to claim salvage. If the Skipper of a vessel in peril comes to an agreement with a salvor beforehand that person will have no further salvage rights. The Skipper should make the agreement in front of witnesses. A verbal agreement in the presence of witnesses will take precedence over any salvage claim.

Lifeboats do not claim salvage. If the Skipper has no option but to accept a tow from a private yacht or contractor then the following actions before accepting the tow should deter another party from attempting to claiming salvage.

Agree to a towing fee in advance. Unless you are in distress, try to agree a fee with the towing vessel.

Make the minimum use of warps or aid from the other boat. Make a detailed entry of events in the logbook and have the crew sign it. The Skipper and crew should be actively involved in the rescue Do not show any emergency or distress flags or signals unless absolutely essential.

Towing under engine

There are two main methods, which may be used for towing vessels under engine. They are, towing alongside and towing astern.

Towing Alongside

An alongside tow is good for confined spaces and for manoeuvring, but this method can only be used in calm water. The dangers and problems with towing yachts alongside in anything other than flat calm conditions are many, and serious damage may occur to both the

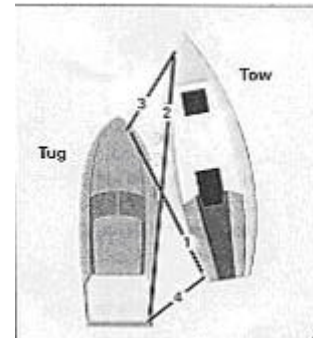
towing and the towed vessel.

This method should not be used in areas such as the Solent, Portsmouth Harbour entrance, Southampton water, etc. The wash from vessels in these areas can be significant, and waters around Cowes, Portsmouth Harbour entrance, can become very confused.

The method is normally used to move boats around constricted and sheltered areas such as Marinas, etc. In ideal conditions a small dory can move a fairly large vessel.

The method is illustrated in diagram. The towboat should approach on the lee side of the boat being towed.

The arrangement of towing warps is similar to the mooring warps for securing to an alongside berth. The back spring (1) takes most of the load when towing and should be a strong warp. The head spring (2) takes the load when stopping (the 'brakes'). The head and stem warps (3 and 4) are generally less heavily loaded but are essential to keep the whole rig lined up. All lines should be tied as tightly as possible to bind both boats into a single unit.



The bow of the tow should be turned slightly towards the tug. The stem of the tow should be ahead of the stem of the tug. Good fendering for both vessels is essential. When maneuvering an alongside tow, bear in mind that the whole rig will tend to turn towards the towed boat when you accelerate and towards the tug as you slow down or go astern.

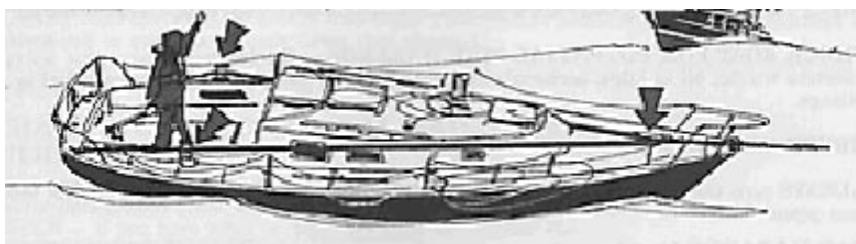
For maximum steering the rudders of both boats should be used. The tow should match the tug's maneuvers.

When coming alongside a pontoon or wall, put the tow alongside, not the tug. When picking up a mooring, aim to catch the mooring between the bows of the tug and the tow. Note because of the great increase in mass the backing and stopping power of the towboat's engine will be greatly reduced.

Towing Astern

An astern tow is good for towing long distances in open water. Unless the towing vessel is particularly well equipped for the job, it is usually best for the towed vessel to provide the towrope.

If possible, agree a plan in advance. Warn the towing vessel of hazards, such as trailing ropes. The towline should be made fast to the strongest point on the foredeck. Very few modern pleasure yachts have a strong Sampson post and many masts are deck stepped with no tabernacle. It is necessary therefore to back up the tow rope/ bridle. This can be achieved by rigging a tight rope from the foredeck cleats, to the side-deck cleats, sheet winches and stern



cleats to spread the load of the towrope. See diagram

The towline should be bowsed into a bow fairlead /anchor roller to hold it in place securely, or be guided by a loose

lashing to a bow fitting.

If it is necessary to take the strain of towing from some where back near the foot of the mast it is essential that the warp is strongly stopped down to the stem head or by some means or other. If not the yacht will surely sheer about unmanageably, particularly if her mast is stepped well back as is often the case.

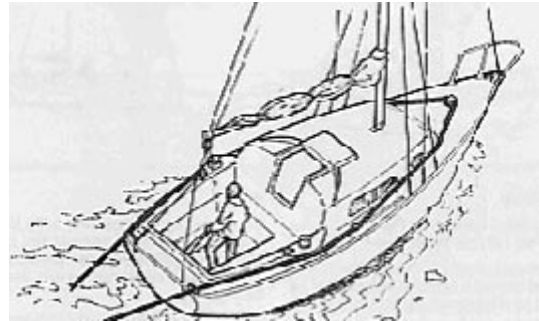
Many craft tow better using a bridle arrangement rather than a single line.

Again the towboat should approach on the lee side of the boat being towed to pass the tow. The crew should have a heaving line and plenty of fenders ready. Both vessels should be

adequately protected. It may also be possible to float a line messenger down to the towed vessel.

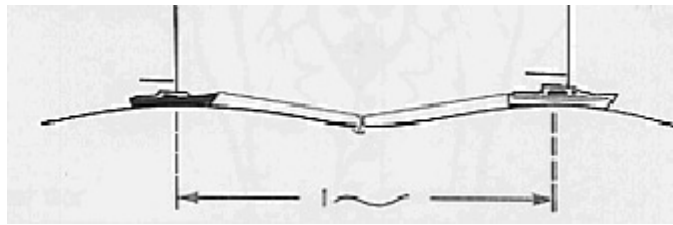
If the towing vessel is a yacht i.e. not a purpose built vessel, a towing bridle must be rigged in a similar way to the towed vessel to spread the load. see diagram

Allow plenty of scope for the towrope. The longer and heavier the towrope is, the better. (50m are not too much). It better to err on the side of having a towrope too long, than one, which is too short. In a sea the length of the tow should be approximately the wavelength of the sea (fig1) so that both boats will ride the waves with the same rhythm.



Tension should always kept on the towline to ensure that it will not foul the propeller. A weight or length of chain can be shackled to the towline will act as a shock absorber. The warp can be attached to the anchor /anchor chain which will act as a shock absorber. See diagram below. This can be advantageous in a heavy swell. Overriding vessels can be controlled by some form of drogue laid out from the stern of the towed vessel. At night a torch may be useful to highlight the towrope.

Where possible the towrope should be protected at the bow fairlead/s with plastic tube, rags, small stuff, a fender split lengthways, etc, to reduce chafe. The towed vessel should steer in the wake of the towing vessel and a knife, axe, etc, should be available to cut the towrope quickly if necessary.



Yachts must be towed at slow speed. The R.N.L.I, coxswains and crews know about towing, and during the Fastnet storm, a 47ft Watson-type R.N.L.I. lifeboat towed the rudderless yacht Casse Tete V for 12 hours at little more than 2 knots, to gain the safety of Courtmacsherry Harbour in SW Ireland.

The tow should only begin when the two boats and the towrope are on the same axis that is on a straight line. Any slack in the line should be surged around a post / cleat so that the rope does not snap or jerk

TOWING BEHIND IS THE PREFERRED AND SAFEST METHOD FOR TOWING AT SEA IN ANYTHING OTHER THAN CALM CONDITIONS.

Signals

The Skipper of the tow is in charge. Both Skippers should establish a clear set of visual signals for the tow, stopping, slowing down, going ahead and releasing the line, etc.

Towing by a Lifeboat

If the vessel is to be taken in tow by a lifeboat communicate with the crew in advance if possible.

If awaiting the arrival of the lifeboat make preparations in advance. You should have a plan for securing the towline to your vessel when the lifeboat passes it. As with MOB this should be practiced as a routine safety drill.

As the lifeboat approaches, the coxswain will discuss his intentions with you. Advise him of any known hazards, e.g. ropes, sails in the water around you. Follow his instructions - he is the expert!

All-weather lifeboats are equipped with a small canvas drogue which may passed to you for streaming astern of your vessel under certain conditions, particularly if you have lost your

rudder. This will make the tow more manageable and also reduce the tendency to broach in following seas. You should consider where a drogue might be attached to your vessel.

Collision Regs

The Skipper should be aware of the IRPCS requirements as applied to towing. Whenever possible the Skipper must comply at all times with the requirements of the IRPCS

Other Towing Techniques

Towing by Dinghy

This may be possible in certain conditions. The warp should be of floating rope of a length such that it just rises out of the water with each pull from the dinghy. If it is too long, force will be lost in friction. If too short, the rope will jerk with each pull.

Towing yourself

It may be possible in ideal conditions to achieve this over small distances using one of the following techniques:

1 Hauling with buckets. Substantial buckets and lines are required

2 Hauling with anchors. This can be achieved two anchors are carried which are relatively easy to handle. If the ship's engine fails in a confined area, by using one of these techniques it may be possible to get the vessel into a position where there is sufficient room to get underway under sail.

Dangers of being Towed

Towing along side can be very dangerous but there are also dangers in being towed astern. The Skippers of large vessels do not always appreciate the limitations and requirements for towing yachts.

However tempting the opportunity may seem, a yachtsman should beware of being towed - except perhaps by an R.N.L.I. lifeboat. As the U.S. Coastguard states in a report on the subject, *'The towing of one vessel by another is an operation of apparent simplicity to those inexperienced in its Execution. But it is an operation fraught with danger'*.

Claud Worth, in his classic Yacht Cruising, also warns: 'a small vessel cannot safely be towed in a heavy sea except at a speed low enough to allow her to rise to each wave.'

There are documented cases of yachts being seriously damaged by large boats towing them through the water at speeds of up to 9 knots.

Some tugs cannot tow at less than 4 knots. They need to maintain that speed to keep adequate control. The strain of being towed at even 4 knots in a heavy swell offshore can be enormous.

Final Note

Like MOB the problem of towing with a particular vessel should be considered and addressed before the event. This article has been written and provided with that in mind.

Sources & References:

Total loss by Jack Coote

Yachtsman's Emergency Handbook by Hollander & Mertes. (Figs 3&4)

A Seaman's Guide to the rule of the road; Morgans Technical Books Ltd

Yachtmaster Shorebased notes; RYA (Fig 2) Emergency procedures for small craft; RNLI

RNLI Handbook (Fig1)