

## Towing - New York Style

I began towing in Boston Harbor on small tugs. We moved one barge at a time and a busy day would have involved four barge moves around Cashman's yard. Most of the barges were small – 30' x 90's and 120' x 40's – but that was good, because we were small – 45 ft, single Detroit Diesel 6-71. We would take a barge from a mooring to dock where it would be loaded with construction materials and then we would take it to the jobsite (if we were lucky!) or just leave it at the dock and move it around the yard the next day so we could use the dock for the next barge.

Over time the boats and barges got bigger, but the moves were all performed the same way – grab the barge on the hip, shift it and if we were going somewhere with it after loading, we would take it on the hip, heads to tails, so we could string it out for the offshore tow. Once in a while, we would push the barges, but most of the tugs didn't have push gear. It took the introduction of some southern boats with winches to get us to get behind our barges.

Joe Simpson of Simpson Towing was the first one that I saw one-lining barges. Joe would grab the barge on a head line and just go, leaving us all behind as we wasted time putting up our push wires. How did he think of that? How did he do that? And with a single screw boat!

Joe worked the coast and spent time in NY Harbor and to us up in Boston, NY Harbor was the big time. NY Harbor was a busy harbor, a place we only passed through occasionally, a place of larger than life captains and sea stories. Joe moved oil in NY and we figured he learned from the pros. And he probably did, but as we got to know Joe, he probably taught the pros a thing or two too.

Years went by, and then decades and towing involved larger distances and fewer barges. I bought a tug, towed wherever the money brought me – from Maine to Florida and out to Michigan but never did much on one line again. Circumstances dictated tighter control and running a barge through the Erie Canal for four days with just a headline out trying to make 30 locks would have grown old fast.

After a while I sold the tug and company and ended up in NY with the pros. I was fortunate enough to land on a boat with Harry Reimer moving scrap barges around Claremont Terminal and to and from the various scrap yards in the NYC area. After 24 years of towing, my education in barge handling had begun.

Harry Reimer is the master of one line moves. He only put up the push wires to cross the Upper Bay to Gowanus. For local moves a headline was more than enough and sometimes wasn't necessary and for moves of any distance we used the gate lines, but more about them in the next installment. One line between you and the barge and you can do anything – you can push, pull and take it alongside. The reality of it was for Harry it was fun. Decades earlier he had figured out the mechanics of the moves – push the stern to port, the bow goes to starboard, etc. So when I met him, late in his career - a man intrigued with puzzles, he enjoyed the challenges and had a lot to teach.

We were on the Herbert P Brake, a 1,000 hp twin screw push boat with an elevating wheelhouse. My only other one line moves were with model bow boats, so the flat bow added a new challenging in timing – it takes a little longer to get the power to bear in the direction that you want as you pivot a slab-sided towboat on one knee to the other. The benefit is the flat bow though, because once you are headed in the direction that you want to go, you can just let her push.



Backing a hopper loaded with 1,500 tons of shredded steel drawing 15 ft ¼ mile from the barge racks to shipside. This barge move takes 35 minutes on push wires but only 20 minutes on one line.

The Herbert is stationed at Claremont Terminal in Jersey City, NJ. Claremont is the where most of NYC's scrap ends up. Each day we send light barges out to the scrap yards in Brooklyn, Queens, the Bronx, Eastchester, Albany and Stamford, Ct and they get swapped out for loaded barges that are returned to Claremont. The scrap eventually leaves here by ship.

We tend a fleet of forty barges and shift 18 barges a day. A busy day involves 30 barge moves. And because of the volume of moves, one-lining the barges makes the most sense. If we had to put the push wires up 18 times a day with our manual winches the deckhands would revolt. Most moves take 25 minutes and the longest distance is three-quarters of a mile. 39 of our barges are around 140 ft long, 35 feet wide and draw 9 ft loaded. When loaded they range in weight from 1,500 tons to 2,300 tons. One barge is 270 ft long, 52 ft wide and draws 10ft when loaded light iron.

The hardest part of one-lining for any new mate is getting beyond being tightly made up to the tow. The one line requires slack. Five to seven feet is usually ideal as it lets the boat range from side to side. Moving barges around on one line allows the operator to gain a greater understanding of the relationship between the tug and tow. You learn how a little pressure at low rpm's in the right place is far more effective than muscling a barge around with the wires up and the engines screaming. With just a nudge you can easily change direction when pushing the barge. Too much of a nudge? Just back on the line and pull the bow back to where you want it. So once you get used to the fact that the tug and barge are two independent units connected by a piece of line, you can begin.

When shifting a barge, while pushing it, you have to remember that to get the bow to go the way that you want it, you have to push the stern the opposite way. If you need to slow down and get the bow to go to port, you can back on the line, dragging the stern to starboard. The key to backing is watching the way that the line is leading from the stern of the barge to the

bow of your boat. All the force is applied along that line. You can be pushing along in a straight line with the boat just off to the port side of the barge's stern when you have to slow down and get the bow to port. Just backing down will initially swing the bow to starboard – the force exerted through the line from the boat off the barge's port stern will cause it to turn to starboard. So you have to walk the boat over to the starboard side before applying any significant amount of throttle astern.

One line moves do require some extra thought. You have to think a few moves ahead and adjust to the ever changing situation. As the bow wanders off to port, you adjust the boat's position so that you are pushing the stern to port and the minute you see movement of the bow to starboard you have to readjust so as not to over steer the barge. In the above example, light barges will slide sideways more than loaded ones – I know it sounds obvious, but it catches people off guard – so as we go through a 90 degree turn to starboard and you are pushing the stern to port, you have to be aware of how much you are pushing the whole barge sideways as she sweeps through the turn. A little pressure is usually better than a lot.



Pushing a light scrap barge out a narrow channel. With both knees against the barge, she pushes straight out.



As we approach the first 90 degree turn to port, I shift the boat over to the port stern. This gives a little more leverage for pushing the stern to starboard and the bow to port and also keeps the tug's wheels in good water as it is shallow off to starboard.



Pushing straight through the opening and setting up for the next 90 degree turn to port. Note the slack in the line. I am letting the boat drift along behind the barge to allow the barge to slow down.



Beginning the turn. The boat is angling off to starboard and pushing the bow around to port, as well as, ahead.

Wind can make it a bit trickier with light barges as well. Speed can help overcome some of the force of the wind but you have to have thought out the approach and landing well in advance and then have a Plan B and Plan C.

Downwind landings require that you back the stern over to the dock or barge that you are landing against, but unlike a conventional makeup, when you back over to what you are landing

the barge's stern, the tug's stern goes over to it much farther than it would if you were using push wires. So if you don't have a lot of room, you can put the boat in indirect mode (I borrowed that term from the tractor tugs.).

As long as the line is pointing in the direction that you want the barge to go, it doesn't matter where the tug is pointed.

Rather than stern to the dock, spin the boat so she is bow to the dock and walk the boat away from the barge and towards the dock always keeping the line pointed to the dock. It requires much more throttle and constant adjustment of the throttles (twin screw boat), but as you walk the boat, the barge will follow.



Backing a barge over to another barge – just keep the headline pointing in the way that you want the barge to go.

One line can also be used for alongside work. Normally when you are making up on the hip, the tug would be made up on the after half of the barge (depending on barge length and tug length). A bow line, spring line and stern line allow you to do anything with the barge. You become one unit that just crabs a bit. But with one line, you try to put it out on the barge's quarter bitt forward of the center. With just





your head line, you are able to lean your boat's stern on the barge and lift her head (your rudders would be hard to port if you were on the barge's port side) and by just steering towards the barge (rudders amidships or slightly to starboard if on the barge's port side) you can push the bow to starboard. As you may guess, a twin screw boat allows you a little more flexibility. With just one line you are able to come alongside whatever you happen to want to land on and then just pivot the boat out to a 90 degree angle and pin the barge in.



Alongside a light scrap barge with the Herbert Brake.  
Just a headline is out on the forward quarter bitt

One line makes turning barges in tight areas a lot easier. You can lay the boat along the head log and work ahead into your line. The barge will pivot in place. Backing on the line will stop the turn.



Herbert Brake turning a barge into a slot in the barge racks at Claremont Terminal

As with all tug work, one line work is a game of momentum. The more you learn about how boats and barges react to each other and outside forces, the easier it gets. Most times you try to set the moves up so that you can work with the barge's motion. If you know that as you come through a turn, the barge will slide a certain way, you can use her motion to your benefit rather than fighting it to do it the way you envisioned it. It's a lot easier to go with the flow.

I have seen towboats in the Western Rivers' fleets drag barges around on one line and once in a while along the coast I encounter boatman doing the same, but New York Harbor seems to be the home of one line moves. The Brown tugs are always on one line with multi-barge tows and they go all around the harbor like that. To watch them coming at you, you would think they had their push gear up. Don Jon Marine, Buchanan and Sea Wolf Marine boatmen are close seconds to the Brown captains. So many guys on boats in New York got their start moving scrap and stone and they have moved on to bigger boats and oil where one-lining is frowned upon, but the art is alive and well in the Sixth Borough and thanks to Joe and Harry for passing it along.



John P Brown pushing a loaded sanitation scow



John P Brown with only a headline out