

Raising the 45M (updated)

06 January 2015

Last Updated 06 January 2015

GCC Barge 45M

The Irish barge 45M, was built in Dublin in 1928 by Vickers Ireland Limited, for the Grand Canal Company. She was constructed of riveted steel and motorized with a 15hp Bolinder E Type. On December 1st 1946, on Lough Derg between Portroe and Killaloe, in gale force conditions, 45M sank. See HBA Vessels: 45M

However, twenty-nine years later, in 1975, Donnacha Kennedy in an epic enterprise over a three month period, floated her again, ably assisted by spectators, family, friends, fellow boaters and divers and ninety barrels. Here he describes how it all came about. The photographs were taken by Sean Curtin.

The Raising of 45M

It started in March, over St Patrick's weekend. Friday evening we left Carrick-on-Shannon to go 100 miles downstream to start this salvage job with the most unlikely crew ever assembled. Of the ten crew members on this trip on the 60 ft by 13 ft converted GCC barge 42M (aka Jacaranda) only three were over ten years of age. 30 miles downstream at Lanesboro on Saturday afternoon we picked up eighty 45 gallon plastic barrels. Everyone over 4 years of age lent a hand with the loading and a great time was had by all. With all the barrels stacked on the cabin top over the original hold, the helmsman could steer only by standing on the tiller, gripping the wheelhouse roof and with a hip movement like a slalom turn to produce "hard a starboard" or "hard a port".

The barrels were to supply the buoyancy to refloat the only Grand Canal Company barge to be lost at sea; namely 45M. A short, steep "sea" is the only term which describes the conditions which exist on the large Shannon lakes (both about 20 miles long and 4 to 7 miles wide) during winter storms. The GCC barges crossed these lakes on schedule winter or summer. With a full load of beer, the cargo 45M was carrying, there was less than 18 inches of freeboard, yet she was the only one lost. 45M was fitted with a single cylinder hot bulb engine when she sank, in a reported 120 feet of water off Parkers Point on Lough Derg in a SW gale in December 1946.

When I was passing through the 8th Lock on the Grand Canal some time before, the lock-keeper, an ex barge skipper, in conversation told me that 45M sank 600 yards east of the Scilly islands because "I" went down Lough Derg the following morning and that's where I saw the oil in the water. When we consulted the only chart of Lough Derg (produced by the British Admiralty in 1834) we found there was approximately 65 feet of water at this point. This made salvage possible and our class room scientists were convinced that it would take air as well as water to rust her away.

The next step being a practical one it was left to my wife to write a letter to CIE, our national transport agency (who had bought the Grand Canal Company) making an offer for 45M "as is where is". We fully expected this unusual enquiry to take some time to process but with surprising speed, we got a letter within ten days accepting.

OK, now we owned her so we had to find her! A lot of ideas were put forward for locating her. Among the suggestions were metal detectors and echo sounders. The range of metal detectors is short (3 to 6 feet) and although our object weighed in the region of 20 tons this didn't increase the range enough to keep the instrument above water. More sophisticated detection equipment was not available for hire and the cost was too high to think about purchase.

A recording echo sounder was the piece of equipment most readily available. So on a clear day in November, we made a series of passes over the area. These proved to be very disappointing as the bottom of the lake was strewn with big boulders almost any of which could have been 45M, until John looking at the print said "there's a salmon". We took two quick sights and when the "salmon" proved much bigger on a second pass, we dropped a permanent magnet (one of the early rejected ideas for locating the vessel) on 80 feet of line, it stuck! We pulled it off and tried again to make certain, it stuck again and the second time it broke the surface, there was two feet of a barrel hoop attached. This was better confirmation than we had hoped for. We had our boat.

Limerick Sub Aqua Club, at the same time as us, had literally bumped into 45M but because of the peat in the Shannon water, which reduces visibility, she eluded them on subsequent dives. Ireland being a small country, we each heard of the other and agreed to pool our efforts. The divers being amateurs could only pitch in on weekends.

Work Begins

With the sights we had taken and our permanent magnet we had no difficulty in locating 45M again when the serious diving got under way over the Easter weekend at the end of March. Our deck crew was larger now; uncles and friends had been recruited through a lot of work done by â€˜little handsâ€™.

Conditions on the surface were not good, a strong NW wind (4 to 6 the forecaster said) kicked up to three foot waves but the diversâ€™ enthusiasm carried us out to the buoy, previously attached to the wreck, and then into the water before anyone realized how cold it was. Cold it was on the surface but after a 20 minute dive in the peat black waters, it took numerous mugs of soup and a full hour to warm up again. And once below 40 feet, no light penetrated from the surface and even a strong light only increased visibility to 4 feet.

A very weary deck crew and a partially warm diving crew by the evening of Easter Monday, had all but four of the 80 barrels attached. Each barrel was slung through the two bung holes in the end, filled with water, pulled down and tied to the tarpaulin rings, bollards and anything which looked strong enough to take the 500 lbs pull of barrels full of air. Having attached the 80 barrels, it was decided that more were needed. After another 10 were procured and attached it was reported that 45M, â€˜looked like a giant hedgehogâ€™, so we called a halt.

In order to avoid recounting a litany of calamities, some of our set-backs and blunders have been omitted but as we commenced filling the barrels with air, the only wholly new equipment, namely the rope attaching the barrels proved unable for its task.

The manufacturer claimed a breaking strain of 1,640 lbs, but within five to seven minutes of being filled with air, blue barrels in a welter of bubbles, rocketed into view. They made some startling if unwanted, cine footage as they broke the surface in the bright sunlight on a glass smooth lake. Under examination the diversâ€™ knots, though made with one hand in the semi-dark, could not be faulted. The barrels, free to turn, had apparently un-laid the rope weakening it. Most of this would have to be renewed. If we could have found the salesman who had quoted the 1,640 lbs breaking strain, he would have been the one to replace the rope whether he could dive or not.

In some cases, the sling through the two bung holes of the barrels, were of wire rope and were retied under water. But over half the barrels had to be cut free, retrieved by rowing boat, refitted with stronger rope, then made fast to 45M under water; an awful lot of extra work for the diving crew. An 80 cubic foot compressor was loaded onto 42Mâ€™s cabin top with two carefully placed planks. It took three divers most of a day to put air in all 90 barrels.

This proved difficult enough because some of the tie-downs were fairly long and with the first burst of air, the barrel shot up out of sight in the dark water above. At the end of the day, 45M seemed to be as firmly on the bottom as ever, although according to our calculations we had at least 4 tons more of buoyancy than was needed to lift her. Some tugging was done with the surface barge 42M, but to no avail. We finished the day by accidently cutting the marker buoy adrift and dropping the mooring line, but there seemed little likelihood that 45M would rise like a whale and drift off in our absence.

The following weekend we started by dropping the permanent magnet on 80 foot of light rope and rowing in circles until we confirmed that 45M had in fact stayed where she had been for 29 years. Three wire ropes were dropped from the surface, passed through 3 large sheaves which were fixed to 45M; 2 through the forward cabin portholes and 1 to the rudder post. One end of each wire rope was made fast to 42M, the other ends were hooked onto chain hoists slung over the gunwales of 42M hanging in the water.

These chain hoists were rigged so they could be operated from the deck. A great deal of heaving and hauling ensued, all hands (spectators, friends and divers) working in relays. When everyone was exhausted a long overdue meal was voted the best idea. Back up on deck after our meal, we were amazed to find ourselves lying head to wind at right angles to our previous position. 45M had moved on the bottom! The cheers were somewhat muted, we had barely lifted her clear of the bottom and we had 60 more feet to go. It was decided to try to get some shelter from the NE winds, which had plagued us. So we started to tow; with 45M the â€˜vessel in towâ€™ slung 50 feet below 42M, the â€˜tugâ€™. By night fall, we progressed about three quarters of a mile and although 45M was still in 40 to 50 feet of water, she was only 100 yards off shore.

Coming up to the surface

Blistered hands returned to office desks and to toting brief cases; another weekend of â€˜recreationâ€™ was at an end. The owner of the vessel and one Ben from Belfast hauled in chain blocks, edged 45M aground, took up slack and hauled again. Gradually working closer to the surface until the buoyancy barrels started to hit the bottom of 42M. The offer of two very large chain blocks made by a spectator/helper was accepted and a member of the barge fraternity arrived the following evening. The divers at this stage were diving each night after their normal daysâ€™ work; the long June days giving us daylight up to 11 oâ€™clock.

Over the bow of 42M and 125B (our new surface barge), a chain hoist was slung and then attached to a sling under the bow of 45M. When the forward cabin coachroof broke the surface, we were able to pump it out. 45M was designed to float when the watertight compartments in the engine room and the forward cabin are dry. But when the divers examined the hold under the now better light conditions, they saw a layer of silt over the barrels in the hold; a total of 140 to 160 oak barrels under 30 inches of silt. It is not surprising that our tonnage calculations were incorrect.

We now got a lift on the aft end with the two barges and two chain hoists, but only managed to edge into shallower water with the combined efforts of several boats towing. The wind now went round to SWW and blew force 6 to 7. We spent an uncomfortable few hours with 42M alongside 45M with her steel gunwale only a few feet below the surface and both vessels broadside to the wind. The wind continued to rise and despite our 16 tons of ballast and 3 feet of freeboard, we started to roll our gunwales under and take water across the decks. Our diesel tank came adrift, breaking the fuel line. Having repaired our fuel line, we got our engine started, drove the stern up-wind and with our bow still attached to 45M by the chain hoist, lay head to wind for the next day and a half while it blew a full gale.

The engine room and forward cabin of 45M filled immediately. The buoyancy barrels, now floating high, one by one tore loose and were driven ashore on a nearby beach. Then the storm blew itself out, the trough filled, we got the high pressure conditions we were hoping for and in the bright sunlight and flat calm, we rowed ashore, collected the barrels and set about re-securing them. By passing wire ropes under the hull, as 45M was conveniently sitting on big rocks, making them fast to deck fittings on the opposite side, we were able to refit the buoyancy barrels below deck level. A bottom and topless barrel was bolted upright to a temporary hatch cover for the forward engine room and ballast tank hatches. These raised the freeboard and allowed the pump hose in to pump out the watertight compartments, although the boat was still several feet under water. We pumped, 45M lifted with stern decks still awash and a list to starboard. We pumped forward and as black silt started to come through the pipe, the combing around the main hold broke the surface. The pumps were then quickly transferred to the main hold and 20 minutes later, 45M was riding high.

Celebrating

The occasion was suitable marked by a toast to those who helped. To list them all would look like the sub-titles for a Hollywood epic. Unfortunately, we could not drink the toast with any of the 1900 gallons of beer in the hold as it had not matured well over the 29 years!

Through lack of cooperation from the original brewers, we failed to get a refund of the Excise duty paid on the beer before it went down. This was a pity as the idea of a refund of any form of tax appealed very much to everyone.

The general condition of the hull was beyond our wildest dreams. A thin encrustation of lime had formed over everything and when this was knocked off, the original paint showed underneath. Grand Canal Company was still legible on her stern.

To the everlasting credit of Swedish engineering, the single cylinder hot bulb semi-diesel Bolinder (1912 vintage) without an overhaul or even complete dismantling started and ran. Subsequently, it drove the barge at 5 knots without ever reaching its designed maximum of 450 rpm.

Since then 45M has recrossed Ireland along the Grand Canal and is now fully restored – but, that’s another story!

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