

Cachalot Roy Martin and his friend and colleague, Lyle Craigie-Halkett, both worked for Risdon Beazley and co-authored a history of the company, Risdon Beazley: Marine Salvor, which they self-published. The chapter in the book devoted to the salvage of the ss Great Britain was written by Lyle, who was personally involved with that endeavour on site. Roy's first job on the management team of Risdon Beazley was to organise getting the required salvage equipment to the Falkland Islands.

Roy has kindly given his permission for us to reproduce the chapter but it is too long to do so here. So Roy has edited it down to a manageable length for us, the first part of which is printed here, with the second part to come in the next edition. I have posted the complete chapter on our website and if you enjoy this excerpt then I would urge you to visit the site and savour the flavour of Lyle's original rendition.



The launching of the S.S. Great Britain at Bristol by the Prince Consort in 1843.

The salvage of the S.S. Great Britain

Early in 1970 Leslie (Bill) O'Neil, the senior salvage officer of Risdon Beazley Ltd, was sent to the Falkland Islands to look into the feasibility of salvaging the *Great Britain*.

When O'Neil returned he reported that there was no chance of the vessel surviving the tow to Britain; but he believed that there was a 60/40 chance that she could be re-floated and moved onto a submersible pontoon. Ulrich Harms of Hamburg used pontoons to transport tugs and dredgers; but such a large vessel had never been salvaged this way and the tow would be the longest of its type.

Harm's submersible pontoon *Mulus III* (2,667 grt), towed by the former stern trawler *Varius II* (724 grt), was delivering dredging equipment to Guinea. The Master, Hans Hertzog, was instructed to tow the *Mulus* to Montevideo, where a Risdon Beazley salvage team would join.

During the war O'Neil had been a Shipwright on *HMS Exeter*. After she was badly damaged during the Battle of the River Plate he was billeted ashore in the Falklands. He had kept in close touch with his hosts, as they had "treated him like one of the family". The other team members were Bob Light, from the well-known family of 'Hard Hat' divers. Bob had trained in the Royal Navy as a shipwright. Stuart Whatley, also ex-Navy, was one of the new breed of 'Clearance Divers'. Don O'Hara was also an ex-services diver. He specialised in carpentry and his skills were used to the full on the *Great Britain*. I was picked because I was a Falkland Islander and my local knowledge might come in useful, my speciality was diving and rigging.

We arrived in Montevideo the day before the tow, where we helped the agent to find scrap steel and labourers. The following days were spent preparing the *Mulus*. We joined two jumbo derricks together as a sheerlegs: this was welded to the bow ready to lift the masts out of the *Great Britain*. We had long vertical tubes welded to the deck to form dolphins for the ship to be braced against and keel blocks for the bar keel. We sailed from Montevideo cheered on by a surprising number of people.

The 1,000-mile passage to the Falklands was quite rough, but the *Varius* offered a lot more comfort than a tug, our accommodation was very clean but down in the forepeak, where even the most seasoned seafarer could not help but feel a bit queasy in a heavy head sea, especially after a couple of Schnapps. We took a westerly route to keep us closer to the Argentine coastline and averaging 4-5 knots, which was reasonable in the stormy South Atlantic.



The Great Britain at Sparrow Cove

We shortening the tow passing Cape Pembroke Light very early in the morning of the 25th March 1970. When abeam of York Bay the *Varius* moved alongside the pontoon to 'hip tow' it through the 'narrows' into Port Stanley. As is usual in the Falklands the wind increased and we got closer to a lee shore than was healthy.

I had explained the leading marks only to find that both the vertical 'Land Marks' were missing. Later I found that they had collapsed in the diddledee bushes. We berthed alongside the public jetty; close to the Falklands Islands Company jetty, which incorporates the hulk of the *Egeria*.

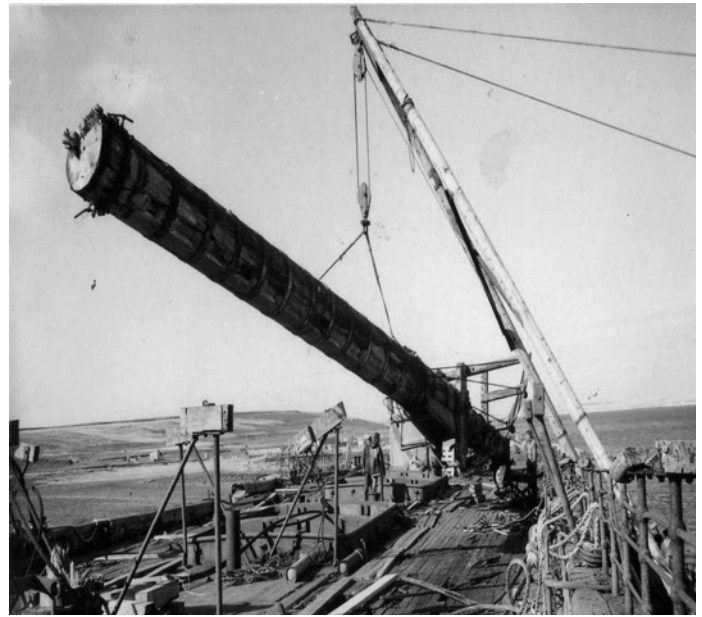
After the formalities had been completed we left for Sparrow Cove. We put the *Mulus* end on to the *Great Britain's* port side, with the *Varius* alongside; then we laid a couple of anchors.

We were dismayed at the condition of the old ship. The remaining weather decking was completely rotten; the only safe places to walk were on top of the beams or the large box section that ran fore and aft each side. The tween decking had gone, so placing the pumps etc. was a bit hairy. The fo'c's'le was reasonably intact and the anchor winch was still operable, despite years of neglect. Inside the bottom there were a couple of metres of mud and debris.

The most ominous damage was a huge split in the starboard side, where a kind of gun port door had been cut. After years sitting on the seabed, and with the scouring action caused by wave surge, the vessel had twisted slightly. The split ran down from the sheer strake to the keel. The weakened hull was only held together by the port side plating and all the visible plates were riddled with wastage holes.



The crack, after it was closed up.



Lowering the mast with the home made sheerlegs.

One of the first jobs was to bring down a yardarm from the main mast. The Royal Marines stationed near Port Stanley helped us with the fetching and carrying and one of the sergeants volunteered to climb up the mast and attach rigging for us to bring the iron yard down. It was about 100ft long and weighed around five tons. The masts had to be removed to reduce the weight and to assist with stability during the re-floating and the long tow back. Our home-made sheerlegs was too short to attach a sling as high as needed on the mizzen: it pulled out of its bed very easily, but fell on to the shelter we had built on deck. Luckily no one was inside. To avoid a repetition we hired Willie Bowles, a local carpenter, to cut the other masts at the weather deck. They weighed around 20 tons and were 4 feet in diameter. The cuts took quite a while as the masts were laminated from about eight tree sections, pegged and strapped together.

Stuart Whatley and I started plugging the smaller wastage holes in the hull and making patches for the larger ones. The patches were made with 3-ply with a bolt to go through the hull with a strong back or 'T' piece to secure it in position. We used rubber strips or oakum and tallow to make a seal, we must have covered at least 200 holes. In places the ship's side was so thin we had to be very careful not to enlarge the holes whilst plugging them.

We then turned to the crack. We put a call out through the local radio saying that we needed old mattresses, the response was staggering. Foolishly, we had not specified that we only wanted flock or stuffed hair mattresses, so although we did receive enough of the type we wanted we were left with lots of interior sprung mattresses. We stuffed the mattresses from the keel to well above where the maximum draft should be. It was hard going, pulling the mattresses under the ship, as it took ages before the air would escape, particularly from the rubber foam ones. We put plywood over them and used hook bolts to hold everything in position.

The other two from Beazley's salvage team, and the crew of *Varius*, were drilling holes through steel over one-inch thick by 30 feet long and three feet wide, with an antiquated air driven drill. These were to bolt to the longitudinal stringers near the deck edge bridging the split on the weather deck and both tween decks. When drilling the stringers they found that the *Great Britain* was far from a rusty heap of scrap. The drill bits had to be sharpened dozens of times before the holes were finished. The engine room bulkhead was so wasted that there was no point in patching the holes; this meant that no compartments could be sealed to aid re-floating. We rigged a couple of mooring ropes to large boulders ashore.

On Sunday 5th April all looked well, so we started the pumps and, after the air hoses and bottom valves had been prepared, the *Varius* moved the *Mulus* into deeper water and gently let her sink on the seabed. It was many hours before we could see any difference in the water level inside the *Great Britain*. We encountered the usual problems of blocked suction inlets and the difficulty of keeping the engines topped up with fuel. The most exhausting part was having to shift our large pumps. They were mounted on steel wheels, but we had no deck to pull them along, so we used a multitude of rigging to get them in a better position. When the water did start to go down many more holes appeared that required patching. It was blowing a gale and the business of getting into the water with patching gear was neither easy or pleasant, especially on the weather side (starboard) of the ship. At one stage the rising tide actually started to lap over the top of the mattress patching, and Bill O'Neil became concerned that the draft would be deeper than he had calculated.

We had been without sleep for two nights. As it was laborious to get out of our diving suits and scramble on the *Varius* for a sit down meal, the five of us made do with sandwiches and as much coffee as they could bring from the ship. The situation was looking bleak; the water level inside had gone down considerably, but there was no movement on the *Great Britain* and the

gale raged. O'Neil suggested that we should go back to the *Varius* for a decent meal and a shower, then split into pump watches. He warned us that the ship should have been afloat by now, and that our work and effort may well have been in vain.

We had just sat down to a very welcome German breakfast, enough to keep a family going for a week, when there was a shout that the *Great Britain* was moving. Breakfast was abandoned. We got back via our work boat to see that she was floating, but starting to get blown off shore. Our mooring ropes would not hold her for long. Fortunately the *Malvinas*, a 75 foot MFV, arrived. We got Chris Bundas, her skipper, to nudge the ship with his bow to check the drift. Our work boat also did its best, plus the small tug *Lively* from Port Stanley. The *Varius* had been unable to assist as she was anchored close to the pontoon.

As the wind was gusting to storm force 10, we couldn't attempt to dock the *Great Britain* over the *Mulus*. We stopped the pumps and let her take to the seabed; about 30 feet from her grave of over 30 years. The suction on the sea bed must have been broken with the slight rocking movement caused by the gale. Had we not responded quickly, and without assistance from *Malvinas* and *Lively*, the *Great Britain* would have been wrecked on the rocky outcrops nearby, or drifted out of Sparrow Cove to meet her end in Port William. Few people, including some members of the project, were aware just how near to disaster the project had been. To fail on re-floating was a possibility, but to float her and then to lose the ship was unthinkable. The gale did not abate, so we decided that two men would keep a watch, 4 hours on and 4 hours off, to service the pumps. We felt confident that we would be able to float her again, that in itself was a tonic. As usual in similar situations we were unable to sleep. We carried on preparing for floating and docking after a hot shower and a hearty meal of curried Falkland Island mutton.

It was two days before the wind eased sufficiently. We restarted the pumps on the evening of the 9th April. The next morning the *Great Britain* was floating nicely. With assistance from *Malvinas* and *Lively* we moved her to the *Mulus* without incident and manoeuvred between the dolphins; only to find that our draft was too deep to get further than 30 feet over the pontoon. There was no time to try anything else as we had to get back clear of the *Mulus* before the ebb tide caught us.

The *Mulus* had to be re-floated and moved into deeper water. This was done with the minimum of fuss and some nice ship handling from Hans Hertzog and Chris Bundace. We got back to the pontoon early the same evening, but this time the wind was gusting force 11. We had no choice but to keep all the pumps running, with mooring ropes on every conceivable protrusion, and ride the storm out. Had we not been so tired the experience would probably have been very exhilarating. The rudder, which had been stuck fast at 30 degrees to port, freed itself and helped in keeping a reasonable heading throughout the worst of the storm.

The following morning the wind had dropped enough to try again. This time we did manage to get over the *Mulus*, but we had to shift more mud and debris from inside to get that couple of extra inches of freeboard. A great deal of diving followed to position the ship's keel exactly over the docking blocks, and to make sure that the bilge keels met the side blocks. With pulleys and chain blocks from the weather deck to the tops of the dolphins, we held the old ship in position as the tide ebbed and she settled nicely upright on the deck of the *Mulus*. Just after midnight, there were two very loud bangs, like gunshots; the plates bolted over the split had buckled and a couple of the bolts had sheared. This was encouraging, as it indicated that as the pontoon was taking the 2,000 tons weight and the ship was straightening herself.

Early on Sunday 12th April the Germans started de-ballasting the *Mulus*, with the divers assisting with the air hoses and operating the valves to keep everything on an even keel. The valve wheels were not exactly diver friendly and our arms ached for some time afterwards. By mid-day we knew that we had succeeded, as the bow of the *Great Britain* started to rise above the surface, as she emerged more and more we began to realise the enormity of our achievement.

No one could fail to admire the lovely lines of this old lady as she rose above the water. To me she looked like a clipper or yacht. Great sheets of scale and mussels fell off, revealing iron that looked as good as new, until it rusted in the air. It was 33 years to the day since she was scuttled in Sparrow Cove. We still had mounds of work to do securing the ship for the short trip into Stanley. We moved several of the dolphins firmly against the *Great Britain*'s sides, and put a couple of runs of weld at the bottom to hold them in place. We managed to get inside the double bottoms and pump more water out. It was very pleasing to note that the split had closed as well as if it had been done mechanically. All that showed were tufts of mattresses.

To be continued

*Lyle,
dwarfed by
the bow.*



One of the attempts at docking.