

APPENDIX

G. Salvage of HMS TRUCULENTG.1. Collision

On the evening of 12 January 1950, the Swedish tanker DIVINA collided with HMS TRUCULENT in the Thames Estuary, England. The submarine sank in 66 feet of water with a 15-degree starboard list. The "T" class submarine lay athwart the Oaze Deep with her stern clear of the bottom.

A 12-foot long gash, 4 feet wide at the top and narrowing to a point about 6 feet above the keel, was made in the starboard side just aft of the bow planes. The water rushing into this opening had prevented the water-tight doors forward of the control room from being closed. Doors between the compartments aft of the control room were closed, but these spaces had been flooded during escape operations.

G.2. Salvage Method

Since the submarine lay in an exposed position and was a hazard to navigation, it was decided to move it to a suitable beaching ground and dewater it there. Two former German lift ships, AUSDAUER and ENERGIE, were selected because they each had a stern lift capability of 600 tons. This permitted the ships to lay stern to the tide and together lift 1200 tons. The salvage weight of TRUCULENT was estimated at 950 tons.

Four slings of wire were to be positioned under the submarine for the lift. Messenger wires were swept under the stern and sawed forward to the selected position. This work was hampered by bad weather and it took more than a month to get all four messengers in the desired positions.

A decision was made to reduce the weight of the submarine by blowing the No.'s 1, 3, 4, and 5 main ballast tanks. This would reduce the estimated salvage weight from 950 tons to 800 tons and provide a larger margin for error.

G.3. Salvage Preparation

Divers installed air fittings in the top of the main ballast tanks with the Cox power velocity gun.

Air hoses were connected to these fittings and flood holes were cut in the bottom of ballast tanks No.'s 3 and 5, since these were fitted with Kingston valves.

ENERGIE and AUSDAUER were towed out and moored over TRUCULENT on 9 March. Reeving of the lifting slings was accomplished by having a tug pull the end of the main lifting wire under the submarine. The wire end was then passed through the roller shackle of the gantry and pulled back under the submarine to the lifting craft. The two ends were connected to the moving block of the deck tackle. The four lifting wires were in place by 14 March and all was ready for the lift.

The after ballast tanks of both lifting craft were flooded about 90 minutes before low tide. Slack in the lifting wires was taken in as the tide decreased.

G.4 The Lift

A few minutes before low tide, the ballast on the lift craft was shifted from the after to the forward tanks, and at the same time, No.'s 1, 3, 4 and 5 main ballast tanks on the submarine were blown. This had the effect of initially lifting TRUCULENT off the bottom.

When the transfer of ballast on the lift ships was completed, hoisting of the submarine was begun. TRUCULENT started coming up stern first and ENERGIE, at the stern, permitted the AUSDAUER to lift the bow until the submarine assumed an even keel. Then both ships hove together until the submarine deck broke surface. It required about 2 hours to accomplish this lift.

G.5. Salvage Completed

In darkness, the two lift ships and TRUCULENT were towed to the beaching ground some 4-1/2 miles away at a speed of 3 knots. The submarine was lowered temporarily to the bottom on Cheney Spit at high tide. Thirty-six hours later, TRUCULENT was moved and beached again in 9 feet of water at low tide.

Water in the after part of the submarine was pumped out and the cleaning process began. The collision damage was patched and the forward part of the submarine drained. The submarine's anchor and cable, DIVINA's anchor, the torpedo derrick, the gun, and all wires and loose equipment in the superstructure were removed.

TRUCULENT was patched and lightened considerably by removal of heavy equipment. On 22 March, she was closed up and refloated. The afternoon of 23 March 1950, TRUCULENT was towed to Sheerness and drydocked.