The SQUAWS, as finally designed, consisted of simplified submarine type hulls with the following dimensions:
Length (over-all front nose to stern) 132 ft %3 in.
Length (over-all from nose to guard) 184 ft 7% in.
Breadth (extreme) 20 ft 5%'/ in.
Depth (bottom of outer hull to top of superstructure deck) 18 ft 4% in.
Depth (bottom of ballast keel to superstructure deck) 22 ft ,11%/ In.
Pressure (hull length, over-all) 121 ft 86/ In.
Pressure (hull, Inside diameter) 14 ft 4% in.
Ballast keel:
Length (over-all) 68 ft 10% in.
Bottom of ballast keel to bottom of shell 4 ft 6%/ in.
There was an Inner pressure hull of high-tensile steel (HTS) with inside B-bar frames. The pressure bull had a parallel-middle body 58 ft long divided into two compartments by a watertight transverse bulkhead at midships. The ends were conical with hemispherical special treated steel (STS) heads. A flat at the horizontal axis of each conical end formed a trim tank. Access trunks led into each conical end.
The outer hull formed a series of ballast and free-flooding tanks between the inner and outer hulls. The ballast tanks were open to the sea at the bottom and were vented at the top through salvage hoses connected to a YFNB.
A superstructure deck extended from the after access trunk to some distance forward of the nose of the pressure hull. A catwalk extended aft from this superstructure deck to the stern guard. Fittings for handling and towing were installed on the superstructure, and there was a special fitting for attachment of the instrumentation cables at the forward end. The instrumentation cables pierced the nose of the SQUAW pressure hull and extended some 600 ft to a YFNB.
A heavy stern guard was fitted over the after end of the pressure hull. A ballast keel was fitted under the vessel extending some 68 ft 10% in. Weights to simulate the batteries and machinery installed in standard submarines were installed in the pressure hull. The general arrangement is shown in Figs. 3.74 to 3.76. Launching is illustrated in Figs. 3.77 and 3.78. A record was made of design, fabrication, and erection history, including inclining, trim testing, and preliminary operational tests with a YFNB. In addition, the characteristics of the structures, such as curves of form, stability, and weight distribution, were recorded.