

USS CURRENT (ARS 22)

Plans for Salvage Operations

Japanese two (2) man midget submarine

PEARL HARBOR, HAWAII

July 1960



## FIRST PHASE

### SURVEY and STUDY

On 1 July 1960 a diving survey was conducted on a sunken submarine approximately 2000 yards seaward of KEEHI LAGOON in 76 feet of water. This survey identified this submarine as a Japanese two (2) man midget type and same as the one recovered at KANEHOE in December 1941. COMSUBRON IV report of 26 December 1941, serial 0570 "Description and Photographs of Japanese Submarine #19" gives details and measurements of this type submarine. This report was drawn from the PINSY Library and was used in the study phases for salvage of this submarine.

The diving survey revealed no damage but a thin coral encrustation over the entire hull. There are two (2) torpedoes in their normal position and not dislodged. The position of the torpedoes indicate that they are still locked in the tubes.

COMSUBRON IV report listed a 350 pound demolition charge inside the submarine but the fact that the survey did not indicate any hull damage leads to the assumption that this demolition charge was not exploded.

## SECOND PHASE

### SALVAGE PLANNING AND RESEARCH

Make final arrangements for the use of YD 121 crane and a YC barge. A suitable berth for the transfer of the submarine from the CURRENT to the barge as indicated in Figure #5.

Manufacture and put in place on the YC four sets of keel blocks to support the submarine when the transfer is effected.

Remove CURRENT starboard bowers anchor and place ashore.

Rig beach gear purchase for lift on the starboard side of the focsle deck on the CURRENT.

Pump all fuel from tanks A-308-F and A-309-F. These tanks will be used to control the list when the weight of the submarine is taken by the CURRENT.

Diving Officer and diving party to dig a trench under the submarine for the positioning of the lift bridles at points (A) and (B) as indicated in Figure #1. Drill 1" holes in the submarine hull in each of the five (5) major spaces as indicated in Figure #1. Vent each of the spaces using the pipe probe described in Figure #6, this venting will insure that the entire hull of the submarine is flooded.

Manufacture a pipe probe for venting as described in Figure #6.



buoy the submarine at both extreme ends. These buoys need to be installed as tight as possible in order to be an aid in properly positioning the CURRENT directly over the submarine.

Manufacture two (2) distance lines 100 feet in length and clearly marked every three (3) feet. (These lines shall be used during the lift process to help insure that the submarine shall be brought to the surface on parallel rise)

### THIRD PHASE

#### RECOVERY

Moor the CURRENT directly over the sunken submarine in a two (2) point moor.

Rig the 1-5/8" beach gear wire lift bridles around the submarine hull in a manner as described in Figure #3 at points (A) and (B) as indicated in Figure #1. The 300 Ft. wires shall be used for these bridles and the loose end shall be retained on board CURRENT.

Attach the moveable beach gear blocks to the lift bridles as close as possible to the submarine hull. The block shall be attached to the 1-5/8" wire with a carpenter stopper.

Attach a distance line to the after end of the submarine and a second one to the forward part of the submarine hull approximately 3 or 4 feet forward of the forward lift. These distance lines will be tensioned from the deck of the CURRENT.

Render such assistance as might be required by the underwater television crew. (Be prepared to submit, if requested, a letter indicating the usefulness of this type of gear in salvage operations.)

When all connections and other preparations have been completed commence lift on the submarine. When the submarine is approximately 10 feet off the bottom send a diver to the submarine to inspect the tightness of the lift bridles and the carpenter stoppers. Insure that none of the slippage or slack taken is not of such magnitude to prevent the lift being high enough to raise properly alongside the CURRENT. If the lift has indicated slippage the submarine will have to be set back down on the bottom and the necessary adjustments made to the lift gear prior to any further lift. When all is well for a lift continue to raise the submarine to a position alongside the CURRENT. Moan the distance lines and insure that the lift is made by a parallel rise.



When the submarine is on the surface, with the sail out of the water, and alongside the CURRENT rig two (2) preventer wire cradles ( 1-5/8" beach gear wire ) to carpenter stoppers on deck of the CURRENT.

When the submarine is safely cradled for transit and PORT CONTROL has indicated a clear channel CURRENT underway for point PAPA HOTEL and thence to the berth assigned for the transfer of the submarine to a barge. When the submarine is transferred to the IC custody of the submarine then passes to CONSUBPAC.

#### FOURTH PHASE

#### DELIVERY

Moor port side to the ID 121 and in such a position that the crane boom will plumb over the lift point on the submarine.

Aid and/or place the ID lift slings under the submarine hull at such a position designated by the rigger loadingman.

Be prepared to shift fuel from tank A-308-F to A-309-F to correct for the list created by removing the weight of the submarine. This list might cause the CURRENT to come in contact with the crane unless it is corrected as soon as possible.

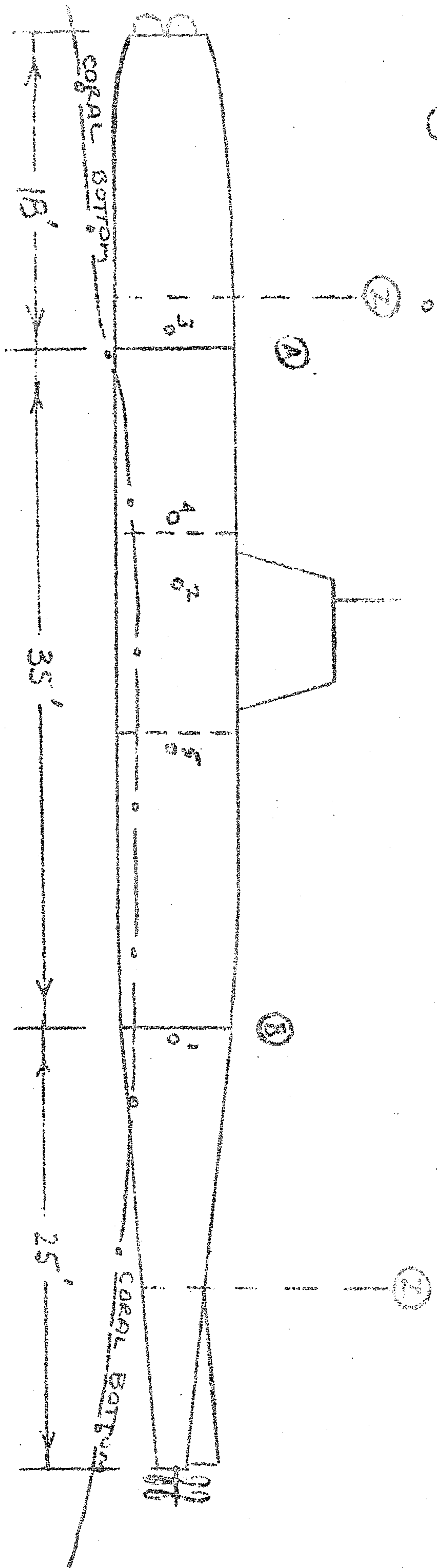
When the submarine is setting in place on board the IC then rig holding down lines or assist the riggers as necessary in the rigging of the holding down lines.

Be prepared to provide a pump and hose to dewater the submarine hull if requested.

After transfer is complete and the CURRENT is no longer needed move to a berth assigned by Port Control and commence cleaning and storage of all salvage gear.

#### FIFTH PHASE

Write a complete report of the salvage operations in accordance with existing directives.



(A) (B) Points at which the Lift Bridle legs will be attached to the submarine. (Securing will be required for the after position in order to place the bridle leg under the submarine hull.)

(1) (2) 1" holes drilled in the submarine hull to afford a means of venting the air to the submarine hull in completely flooded prior to lift attempt. Figure #6 shows the manner of venting.

(3) Distance lines. These lines are clearly marked every three (3) feet and are tanded from the deck of the CURRIE during the period of time that the lift is in process.

Figure #1



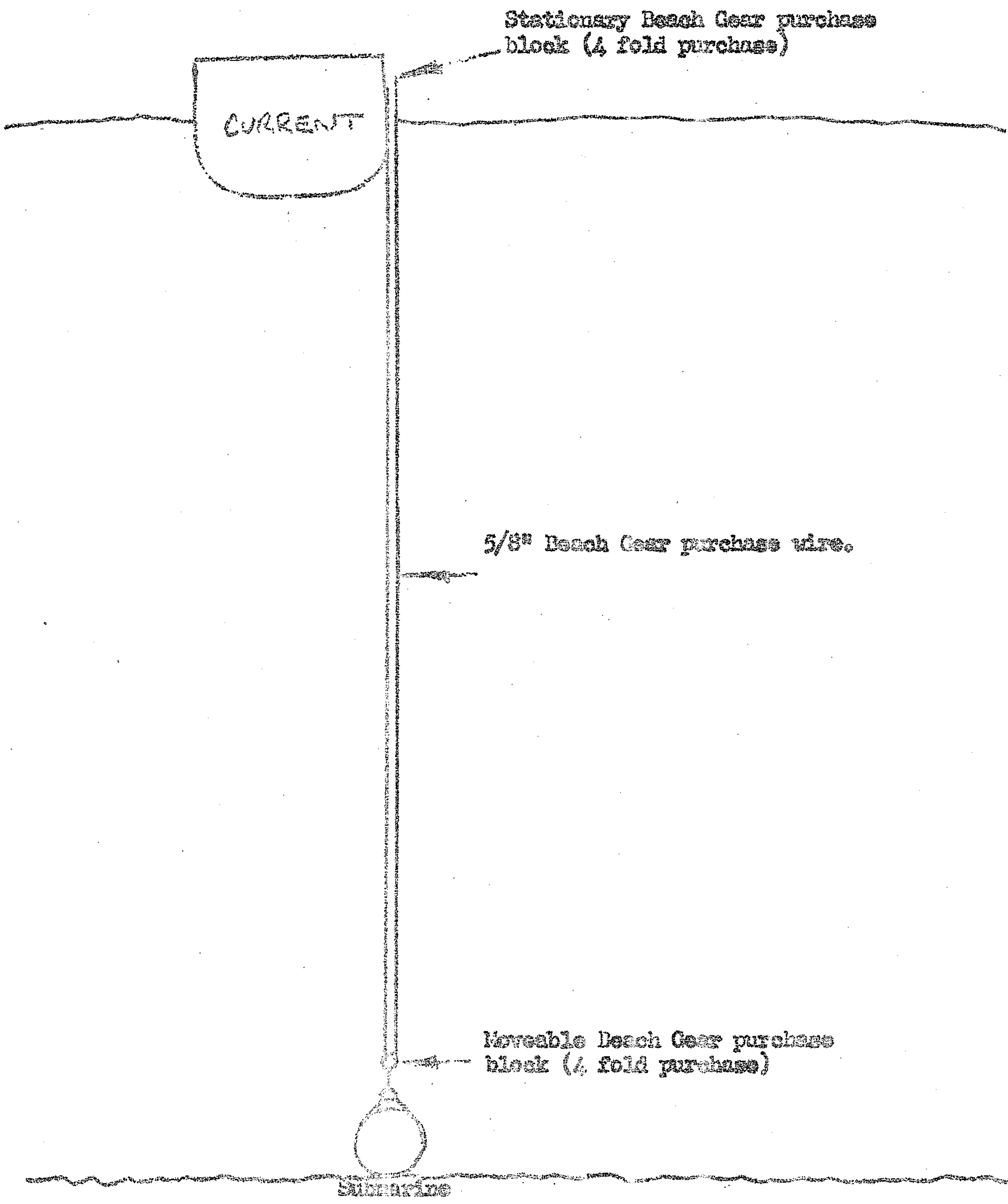


Figure #2

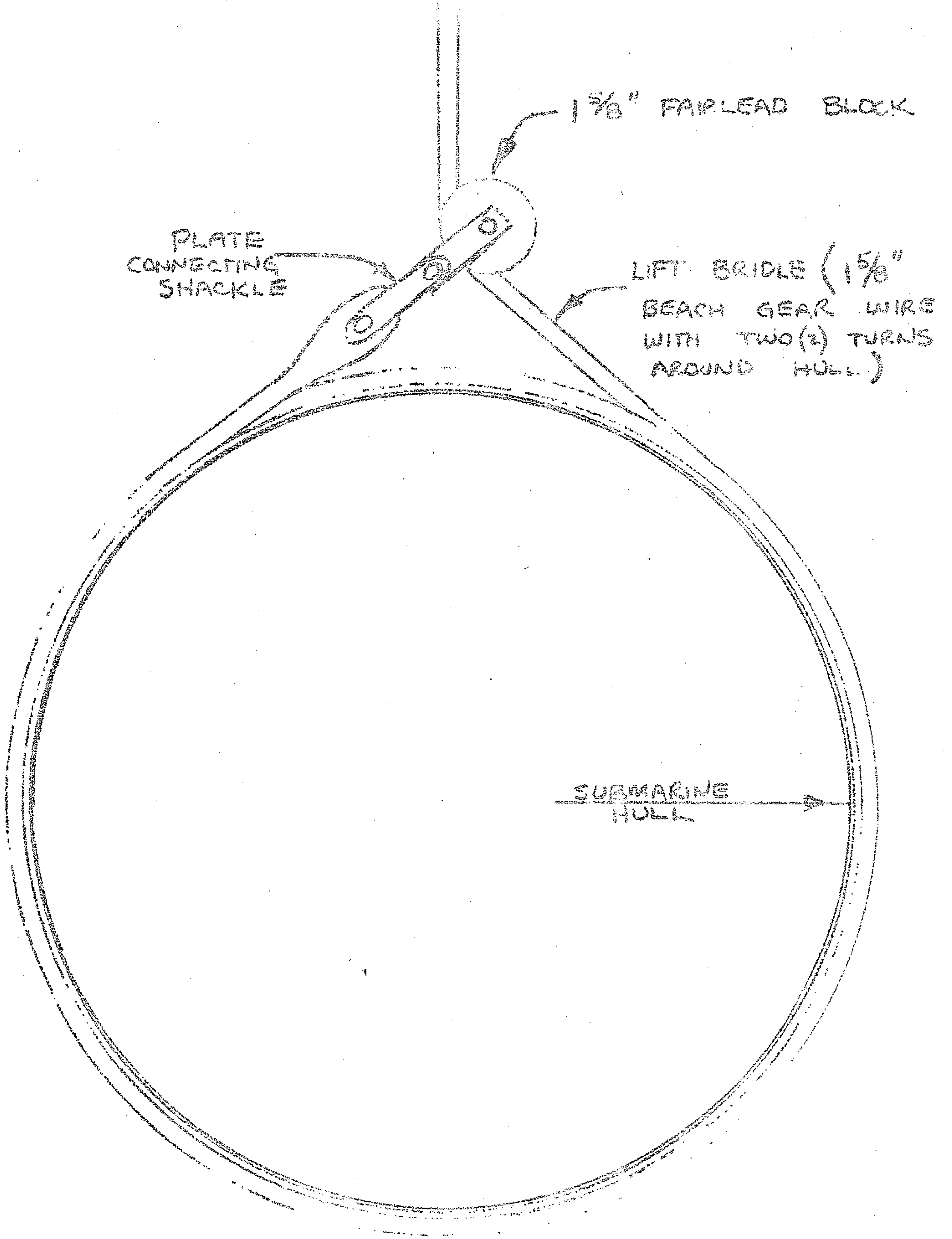
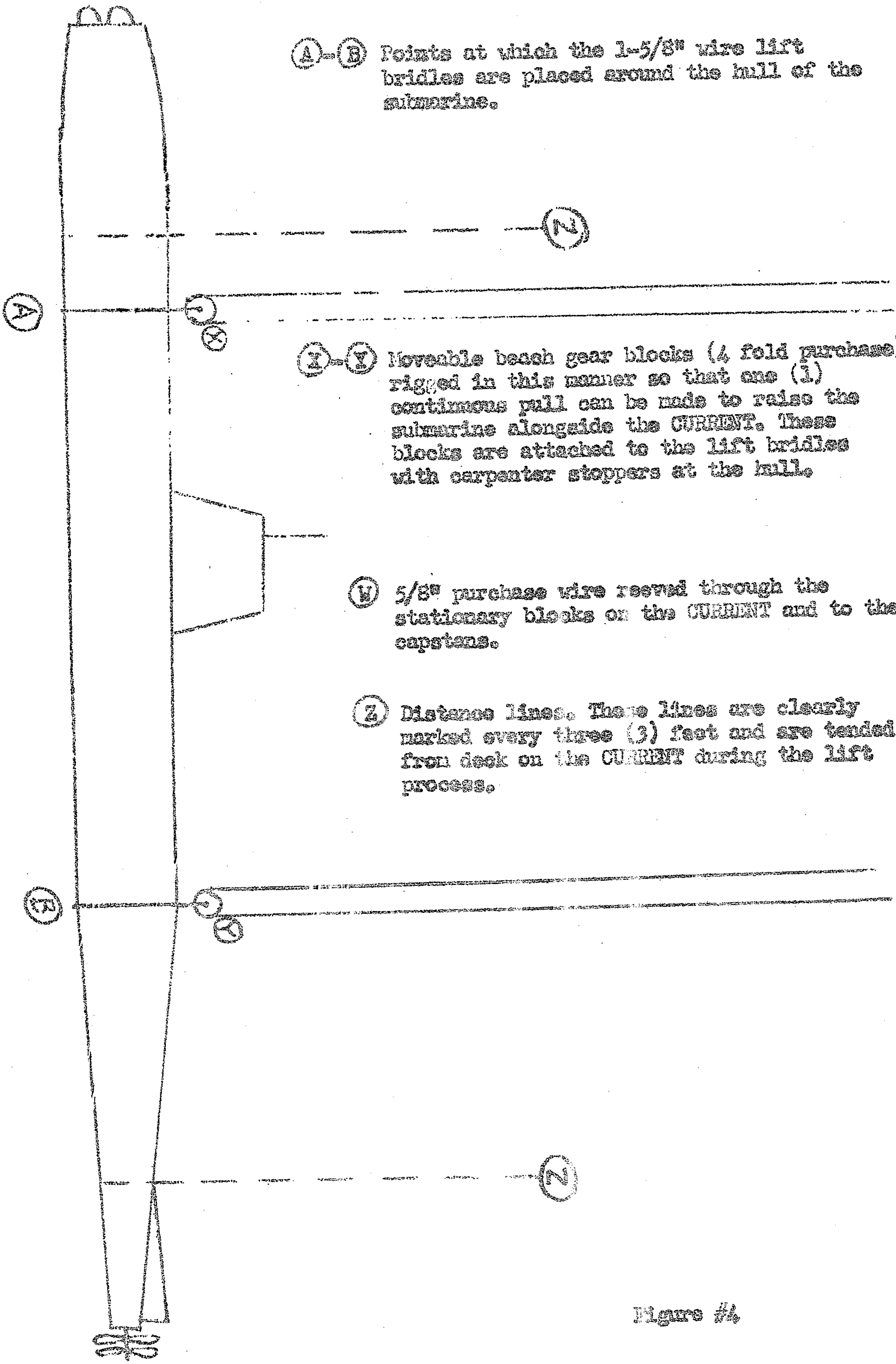


Figure #3



Ⓐ-Ⓑ Points at which the 1-5/8" wire lift  
bridles are placed around the hull of the  
submarine.

Ⓧ-Ⓨ Moveable beach gear blocks (4 fold purchase)  
rigged in this manner so that one (1)  
continuous pull can be made to raise the  
submarine alongside the CURRENT. These  
blocks are attached to the lift bridles  
with carpenter stoppers at the hull.

Ⓦ 5/8" purchase wire reeved through the  
stationary blocks on the CURRENT and to the  
capstans.

Ⓩ Distance lines. These lines are clearly  
marked every three (3) feet and are tended  
from deck on the CURRENT during the lift  
process.

Figure #4



Layout for the delivery of the submarine to the barge.

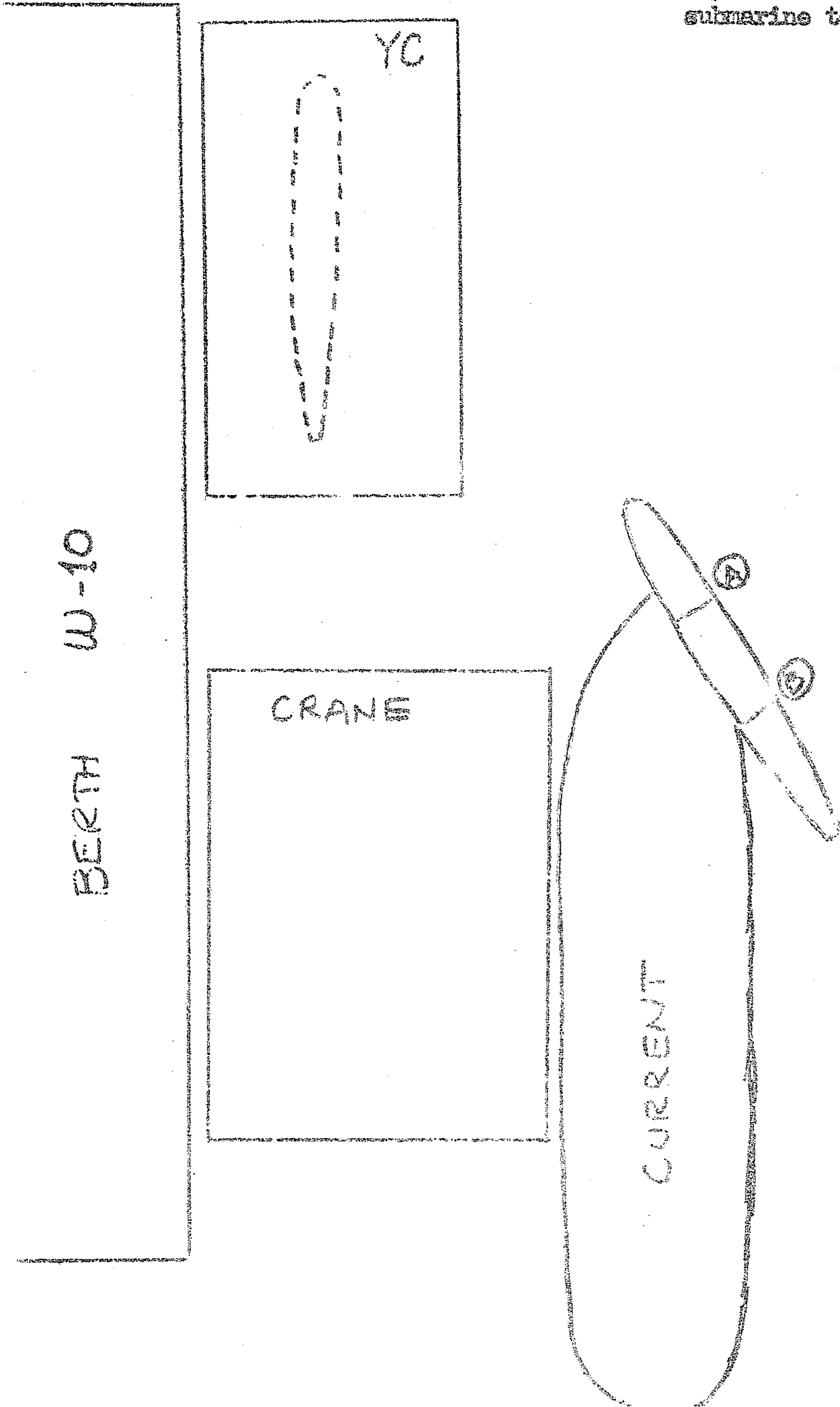


Figure #5

A 1/2" pipe probe will be placed through the 1" drilled opening and the end moved to a position at the top of the hull. Any air trapped in the hull will be vented to the surface permitting the the hull to flood completely. The flooded hull will eliminate free surface effect during the lift and the transit to the delivery position.

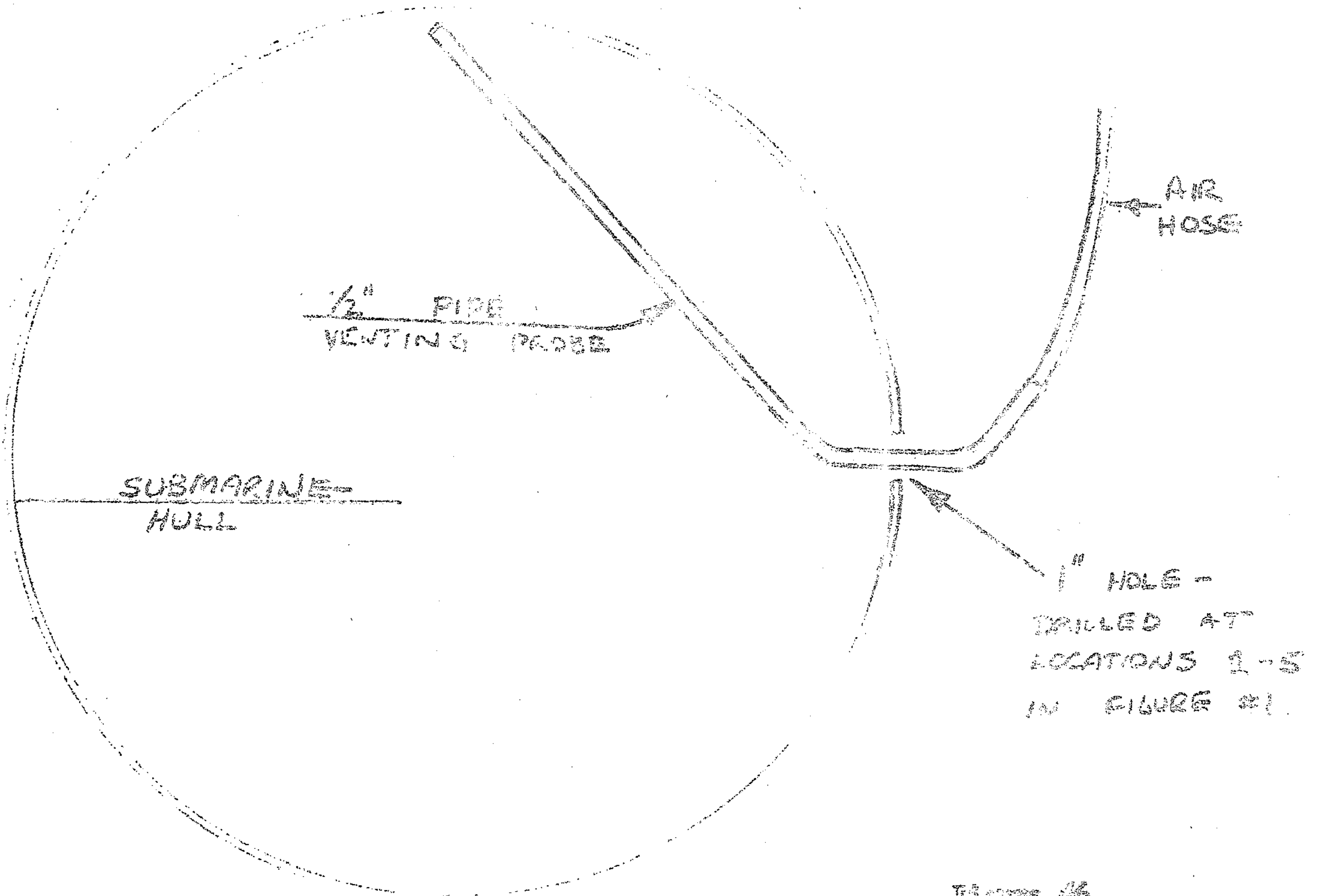


Figure #6