



GENERAL HISTORY

Drydock #4 was built in 1942 - 1943 by the Navy after acquiring property from the Bethlehem Ship Building Company. The first ship docked was the SS MONTEREY on 19 June 1943 for the Bethlehem Company. Drydock #4 is one of the largest graving docks in the world.

Pumping Equipment and Operation

Pumping equipment consists of three S. Morgan Smith, 173,000 GPM, axial flow pumps powered by 1500 H.P., 2300 volt G. E. synchronous motors. Pumps may be manually or automatically controlled as may the hydraulically operated, variable pitch impellers. The drain pumps are Byron-Jackson, 150 H.P., deep well, turbine type pumps with a capacity of 15,000 GPM each. They are either manually or automatically controlled.

Sewage is disposed of through 2 - 250 GPM sewage ejectors.

This drydock can be flooded without a vessel in dock in one hour and can be unwatered in two hours and thirty minutes utilizing all three main pumps operating at full capacity. Flooding is accomplished through two - 8' flooding valves located in the port and starboard sides aft.

It is interesting to note that the main pumps are of the same type as those used at Flood Control points on the Mississippi River and the same type as water wheels at Bonneville Dam.

Caisson

The caisson was built at Hunters Point in 1942 - 1943. Mechanical equipment consists of two 75 H.P., 8,000 GPM Ponoma deep well type unwatering pumps, two - 24" pump discharge valves (motor operated), two - 24" flooding valves (motor operated), and four - 8" trimming valves which are hand operated. The caisson is divided into three compartments consisting of one ballast tank and two trim tanks. Displacement at light load draft is approximately 3200 tons. There are no capstans on this caisson and it must be handled from shore.

The caisson can be unwatered in fifteen minutes and flooded in ten minutes. Not over 32' of water should be left in the dock for any length of time as the caisson will not seal off tightly against the seat and the dock will fill to tide level.

The two - eight foot flooding valves for the dock are located in manholes near the caisson seat on each side of the dock and are controlled from the pumphouse. Indicators show the degree of opening of each of these valves.

General Dimensions

Length.....	1100'
Width at Coping.....	171'
Width of Entrance at Coping.....	141'8"
Depth over Keel at Mean High Water.....	44.54'
Depth over Keel at Mean Low Water.....	36.54'

MAXIMUM NO. OF SHIPS THAT CAN BE DOCKED SIMULTANEOUSLY

1-BB or 1-CVA or 2-CI or 1-CVI or 1-ARA or 2-APA or 2-DD or 9-DE or 12-SS

Added note on Max. no. of ships		1/3/55	JHK
SYMBOL	DESCRIPTION	DATE	APPROVAL
REVISIONS			
PWD DRAWING NO. 16020-156	DEPT. OF THE NAVY NAVAL SHIPYARD	BUREAU OF YARDS & DOCKS SAN FRANCISCO, CALIF.	
DES. DRWN. TR. CHK. SUPV. DESIGN S.	DRYDOCK NO. 4 GENERAL		
APPROVED	DATE		
PUBLIC WORKS OFFICER			
SATISFACTORY TO	SCALE	SPEC	
DATE	SHEET ___ OF ___ NO.		Y & D DRAWING NO.