

INNOCUOUS DOUBLE BOTTOM INITIATIONS

***No Apprentices Were
Ever Harmed...***

by Bill Lee



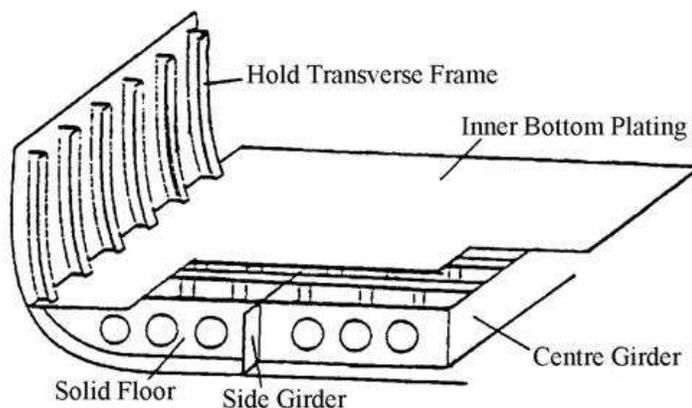
Sixty years ago: I was in my first year of apprenticeship at Newport News Shipbuilding (NNS). In the summer of 1955, as the USS FORRESTAL (CVA-59) was nearing completion, I spent a couple of weeks assigned to the Hull Outfitting Division (X-30) staff onboard that aircraft carrier. While on that assignment, I was subjected to a little fun and games at my expense.

My task, curiously enough, given my current propensity to write, was to tag along during US Navy/NNS final compartment inspections and record ***[PRINT NEATLY, LEE!]*** a summary of navy inspectors' comments and X-30 staff proposed resolutions of any unsatisfactory conditions discovered.

Inspections of major ship compartments often involves dozens of people and results in hundreds of comments...not to mention some disputes about what, exactly, the ship specifications require. But I was relegated to accompany a relatively small team that was responsible for inspecting double bottom tanks; a fairly routine activity and often accomplished without incident. Almost always...

Shipbuilding 101: The double bottom of a large ship, such as an aircraft carrier, consists of a honeycomb of tanks formed between the outer shell of the vessel's hull and its inner bottom plating...also called, appropriately enough...the tank top.

The sketch on the right also indicates the curious name...to landlubbers...for the structural members that run perpendicular to the keel in a ship's double bottom. 'Floors' help form double bottom tanks, along with what are called side girders...or more often longitudinals at NNS... which run parallel to the keel.



I never tire of telling people that ships have floors...but you can't walk on them.

But I digress...

The Inspection Process: When all work in a compartment was done, US Navy inspectors and the X-30 staff were notified. Depending on the size and complexity of the space involved, final inspections could take anywhere from a few minutes to hours...even days.

For double bottom tanks, which were largely empty at time of inspection, except for any piping running to or through them, about fifteen minutes per tank was enough; especially when no problems were found. Consequently, several tanks were scheduled for inspection, one right after the other.

Access to each tank was typically through a man hole that measured only 15x23 inches. The tanks were just four feet high and had no installed lighting. After all work was done, the tanks were 'buttoned up', using manhole covers, gaskets and several nuts screwed down tight on studs welded to the tank top.



The X-30 staff would prepare a list of tanks to be inspected each morning, and craftsman would back off the nuts until they were barely on the studs. After lunch, navy inspectors would go to the X-30 staff office onboard FORRESTAL and composite teams would spread out to perform the inspections.

These teams would remove the loose nuts and the man hole cover associated with each tank and enter. After completing an inspection, using flashlights for illumination, they would reverse that process. If no work was required, craftsmen would again secure the manhole covers; often to go undisturbed for years.

Initiation Instigation: When initially briefing me on what to do...and not do...during such evolutions, one of the X-30 staff members...a gregarious, ever-smiling apprentice graduate named Harry Brendle (Electrician - 1937)...'warned' me of a 'very real danger' associated with going into double bottom tanks.

With feigned seriousness, he told me of shipbuilders being inadvertently trapped in such spaces, when someone mistakenly replaced a loose manhole cover. He painted a lurid tale of ship breakers finding a skeleton in one of the GREAT EASTERN's tanks when she was scrapped. A tale I later learned was pure fable.

But it got my attention. I was not the only one. Some of the men that I worked with in later days would only go into a tank after putting the nuts in their pockets and taking the heavy cover plate into the tank. Others insisted on using drop cord lights for illumination...and to prevent closing of a cover while they were in a tank.

What Harry didn't tell me was that he always placed a 'men inside' sign next to the open manhole of a tank they were inspecting and that someone in X-30 would come looking for us, if we did not return in a reasonable period of time.

My First Tank Entry: I freely admit that I was a mite nervous as we made our way down several ladders to the lowest level of the ship. After all, in class at the Apprentice School, we had been told that shipbuilding was the third most dangerous occupation in America.

Of course, others in that inspection party were aware of what Harry had done, and embellished his sea story, talking of similar incidents when TITANIC and the Hoover Dam were built. I should have realized they were too knowledgeable...

When we got to the first tank to be inspected that day, and after the nuts and manhole cover had been removed, I was 'invited' to be the first to enter the tank and illuminate the way. That entailed dropping four feet down...there was no ladder...while carrying a clipboard in one hand and a flashlight in the other.

While I didn't want those men to think I was afraid, I didn't want to go first, either. I had visions of them clapping the manhole cover in place for 'fun'. As I hesitated, one of the navy guys took pity on me and went in first as the others laughed at me. So it turned out to be a fairly innocuous initiation, after all.

I was not the first apprentice to be faced with that dilemma...nor the last.

History Semi-Repeats: Almost twenty years later, it was my turn to torment. During NIMITZ construction, a young apprentice...deliberately not named here... accompanied me from the office to the ship. We went to inspect a pipe in the double bottom area that the waterfront people thought needed additional support, and to take a photo for use in making an analysis...a common practice.

As we strolled along the waterfront, I assumed good old Harry's role and related the tale of terror that I had been fed in 1955. When we got to the ship, an old friend and graduate apprentice, Harvey Mashburn (Pipefitter - 1954) led us down several ladders to an open manhole.

I told my intended victim to ignore what I had just told him about men being trapped in such places and get into the tank....as Harvey turned away and tried not to laugh. The neophyte not only hesitated...as I had done, he flatly refused, spoiling my fun. But the joke...if you want to call it that...was really on me. The poor guy was claustrophobic!

He was more afraid of being in tight quarters than of what I had told him. Harvey and I, carrying extra pounds accumulated through age, squeezed through the manhole and illuminated the area of interest. My underling stuck his head into the tank just long enough to snap a Polaroid picture.



Harry and Harvey are no longer with us. I lost contact years ago with the young apprentice I tried to trick. But I wonder if he has ever had to have an MRI...