

How I Became a Marine Engineer (Part 3)

Date Published : 19 July 2010

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Specializing in Marine Automation (...continue from Part 2)

After being exposed to the hardware, I decided to devote time at Lloyds Register in London where I was given access to plans of several UMS ships. By studying the plans and by referring to the rules for the UMS notation and through pointers from Mr. D Gray (then Head of Dept), I acquired an overview of what control systems and arrangements were needed to be able to operate an unmanned engine room.

I then crossed over to Nuremberg in Germany to be with Siemens to study its Siematic N system, an electronic main engine control system. I learned how a transistor works and about OR, AND, NOR and NAND gates and the devices from which they were made such as adders, counters and amplifiers. That helped me understand an electronic control system at block diagram level stage. I must confess that my understanding of electronic control had remained stuck at that entry stage till today because I could not "see" what went on in an electronic circuit. I can understand most mechanical mechanisms e.g. a mechanical clock because I can see the movements. With electronics, I see only blinking lights!

I was in Siemens for 6 weeks and I remember the gourmet food at lunch. I could not drink at all (one drop of alcohol could give me a hangover!) then and could only watch with amazement at the amount of wine the others consumed. I still wonder today how the Germans could get back to work after such lunches. The other fond memory was of German food. I stayed in one of 6 rooms above a pub where I dined every night. The menu was in German and owner spoke no English. I decided to start at the beginning and 42 days later, I sampled ALL items. In the process I discovered "eisbein" (pork knuckles braised in sauerkraut) which I still enjoy.

From Germany, I proceeded to Oslo for my attachment with DNV. My purpose was to understand control systems used for the handling (loading, transport and unloading) of LNG. The processes are complicated by the need to load LNG at -160 deg C into pipes and tanks that are initially at room temperature. And I learned how it was done safely from Mr. Bulukin who headed the automation department. He was a colourful character with a dangerous hobby – gliding. Sadly, not long after I

left Norway, he died when his glider crashed. My fond memory of Norway was working flexi-time during summer. I chose to start at 6.00 am and end my work day at 2.00pm leaving me till at least 10pm to sail, visit the museums, explore Oslo, go orienteering and take long walks. Working was hence fun because everyday felt like a weekend!

“Cadetship” on Cardigan Bay

The last leg of my marine automation training was at sea and the best I had. With help from Mr. Jack Thomas, Chief Superintendent Engineer of Ocean Fleets Singapore Office, I got to sail on a UMS ship. I sailed from Southampton via the Cape to Port Klang and then home. The Suez Canal was closed then. The Cardigan Bay, a container ship powered by twin Foster Wheeler boilers and 40,000 shaft hp propellers cruised at 33 knots and took 19 days. I later found out that it was designed to be a troop ship in times of war and the cost of the extra speed, power and strengthening (one could run under deck around the ship) was paid for by the British Government. I was not surprised to learn that the ship was subsequently scrapped when oil prices went up. The twin boilers were burning 300 tons of fuel every 24 hours! And one of the deck officers was kept busy moving bunkers to maintain ship stability.

Looking over the bow was like riding on a speed boat! But I was not on board for the joy ride. I told the Chief Engineer, “I want to understand every automatic system installed on your UMS ship by the time we reach Singapore”. He replied, “Welcome and help yourself” and showed me where the machinery manuals were kept.

The manuals occupied one cabin! I borrowed a few, lugged them to my cabin and read all day and night. That night, the Captain complained of the glare from my reading light that affected his navigation! My blinds were not drawn properly. The next day, I wandered to just about everywhere in the engine room and elsewhere (e.g. the fin stabilisers) on the ship.

After 24 hours, the Chief Engineer tactfully said to me, “I like your enthusiasm to learn and you are welcome to explore. However, it will make me more comfortable if you know how to get out of here (the engine room) by the shortest route. Let’s meet here tomorrow at the same time and I will find out what you know.”

..... To be Continued in Part 4.....