

**AM**

**Oral Exam Questions**

**Liverpool**

**Examiner : P Lewis**

**Time : 1 hour 10 minutes**

Was taken in at 1:15, he introduced himself before going into the exam room. Asked for my discharge book and passport, had a look through both and then had a chat about my sponsoring company for a couple of minutes. He then explained he would be working from my task book and MGN 69.

Would be worth while having a re-read of your task book to be fully familiar with it as he will read and pick out reports. These are in the best order I can remember, he did jump around a bit

1. Draw a line diagram for a sewage system and sewage treatment plant
2. Explain the diagram
3. You are going to carryout maintenance on a piece of pipework in the system what are you going to do?
4. What are the associated dangers with working on this system? (human waste, disease etc)
5. What legislation is there for sewage – marpol annex 4
6. Talk me through your refrigeration system
7. Talk me through your air conditioning system
8. What are the dangers of an ac system
9. Boiler mountings
- 10.Boiler running checks
- 11.Boiler trips and alarms
- 12.Boiler feed water tests
- 13.Why we do these testes
- 14.How the tests are carried out
- 15.What temp for hotwell, why
- 16.How else we get rid of oxygen – chemical scavenger
- 17.Purpose of header tanks
- 18.Move to generators, what are you checking
- 19.Generator trips
- 20.How do you test mechanical overspeed
- 21.Are there any other ways
- 22.What are the dangers of testing this
- 23.Talk to me about L.O.
- 24.Properties in engine, why?

25. How the temperature is measured and fed back to the mimic panel in the ECR – wanted to know what was inside the device itself, what the measuring unit consisted of. I said temperature probes inside he just kept asking about how it worked and what was inside it. I had no clue.
26. What do we compare the temperature in the engine room to? Ambient air outside, he asked how I said there are thermometers in the engine room
27. How we know we are using correct L.O.? delivery notice manufacturers instructions.
28. How do we measure L.O. was looking for viscosity and I said TBN, also wanted specific gravity which I got after a few seconds
29. What happens on start up for generator? Pre lube pump start
30. How are the bearing lubricated
31. What happens when there is no lubrication
32. Asked the same for shaft bearings
33. Main engine trips
34. L.O. low pressure what stages are there – alarm and trip after set point and time
35. Safeties on engine
36. How OMD works
37. Purifier principle
38. How it seals
39. Fire detection systems in engine room
40. How heat detector worked
41. Dangers of air start line, safety's on it
42. Safety's on air bottle
43. Looked at my bilge system and asked if I had ever pumped bilges alone on my last vessel, I said no but always went with the 3<sup>rd</sup> when it was done to see the process and help but never alone
44. Pumping bilges from steering gear to FWD bilge holding tank, you can't get suction what is wrong
45. Type of bilge pumps
46. Different types you could have – positive displacement, roto dynamic
47. Difference between them
48. What would be on the outlet of a positive displacement pump – tried to avoid saying safety valve in case he was leading me into something but had to say it
49. Can you operate these pumps with the discharge valve shut – said yes to both, but would never do so with a positive displacement as the safety

- v/v would lift and spray bilges everywhere and can do for roto dynamic to build pressure but I can cause cavitation
50. How a seal is made on a pump – said mechanical and he wanted more was drawing a blank he said packed gland
  51. Asked how packed glands are fitted
  52. How tight they should be
  53. What are the dangers of over tightening
  54. What is a pump impellar made of
  55. What is brass, bronze
  56. You had HT and LT cooling talk me through it
  57. So how was lube oil cooled?
  58. Was sea water an fw ever in contact
  59. How were they separated
  60. Difference in HV, LV
  61. Did I ever work on the HV system
  62. 440v system
  63. Electric motor isolation
  64. Test the motor
  65. Readings
  66. Draw me a star circuit
  67. Where are you testing across and why
  68. Readings again

I really made a balls up of the testing, but he guided through and tried not to confuse me about it, thought I had failed at this point but he must have been happy with the isolation process

69. You had PEMS, type of motors
70. How they work
71. Sync a generator
72. Read my FW production report, talk me through evap and RO plant
73. Operation what was BTT? What else are you changing on the panel
74. How is FW treated before it is drinkable
75. What the FW tests are
76. BA checks
77. Emergency duties
78. Was I ever aprt of fire team for drill
79. Fixed fire fighting in engine room
80. Fixed fire fighting in accom.
81. How to test sprinkler heads

- 82.Explain sprinkler system – top up pump, mian pump etc
- 83.Explain CO2, how to operate
- 84.Explain water mist, how to operate, how to test
- 85.What is section valve
- 86.How is pressure maintained in the system
- 87.What happens when pressure drops
- 88.How is pressure drop measured
- 89.Principle of CO2 and Water mist
- 90.Where were life jackets kept
- 91.Features of life jacket
- 92.Talk to me about M notices
- 93.What are MGNs
- 94.What have you read recently – MLC
- 95.Tell me about MLC
- 96.Hours of Work and Rest

This is all I can remember at the moment, if I remember anymore I will pass them on. Got a bit of a grilling on most of the stuff I really wasn't confident on but the guy was patient and did help guide you to the point he was looking for. Good Luck.