

Engineers Oral Exam

A. Holmes

Approx. 50 Minutes

Looked at discharge book and workbook

questions in no particular order:

blow down gauge glass

What is caustic brittleness?

How is it caused?

Oil in condensate tank, how do find out where it comes from?

Boiler water pH? why that level?

Boiler water tests

Where would chlorides come from?

When would you want economiser circ. pumps running?

when would you want to add an extra one in operation?

what are the main causes of an economiser fire?

what can an economiser fire lead to?

what is free surface effect?

how can it be overcome?

What is an angle of loll?

how do you correct it?

You have to do a HFO tank inspection, Describe what you would do? (enclosed space entry)

What do you do with your purifier if you are using fuels of different S.G.

What should the pump rate/capacity of a purifier?

Steering gear tests (procedure)

How does CPP work?

Parallel a generator

describe alternator/switchboard safeties

Reverse power trip

preferential trips

What should remain on after preferential trips have activated

What is wrong if a motor is running in reverse

difference between high voltage and low voltage

fresh water generation

describe how an evaporator works

full procedure for preparing engines for sailing

full bunker procedure

what do you have to agree with bunker supplier

what is in your SOPEP manual?

how does an O.W.S. work?

What type of pump? why?

How does an O.M.D. work? (limits)

What is better, Double insulated neutral or neutral to earth? why?
What is COSWP and what is in it?
What documents does your ship carry?
Explain "M" notices
What is ISM?
What is a DPA, what are their responsibilities and what are they able to do?
Crankcase deflections
How would you know if you had a fuel leak on your main engine?
Explain how a CO2 system works?
Describe procedure for activating?
Describe high mist system, how does it work?
What types of fire extinguishers are there?
What can you use them for?
Cooking oil fire in Galley, what can you use?
difference between cast iron and mild steel
what is bronze made of?
what is brass made of?
you are a OOTW and a new engineer joins, what do you do?
Apart from purifiers what other filters or things do you have to help purify fuel?
What is MARPOL?
What is an O.R.B.
What do you put in it?
Describe a refrigeration system (you may draw it to help explain if you want)
What is wrong if your refrigeration compressor is running more than normal?
What do you not want in your air conditioning system?
What can this lead to?
What do you do if you see somebody being electrocuted?
What starting methods do you get for motors?
What would you use to start a big motor? why?
Crankshaft construction
What is better forged or built up? why?

These are not all the questions as there are a few I can't remember. The questions I can't remember are ones that I got wrong which there were about 3 or 4 however on getting them wrong he said don't worry I won't fail you for that it is a second's question. It felt like throughout the exam after I got questions correct he was looking to test how much I knew and was looking for some higher technical knowledge. At the end after he said I had passed, he gave some feedback saying that when it comes to doing my second's which I should aim for, I should really focus on improving my knowledge on electrical, materials and documents and legislation. he also mentioned at some points that I don't think your college teaches you some of the stuff he asked me about which I think suggests that the examiners discuss what people struggle on and weaknesses seem to be in the same areas. Also, if you weren't getting to the point he wanted he would guide you to it and on some questions he would cut me off when i said what he wanted to hear.