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SHARING KNOWLEDGE

# *Practical Loading of Merchant Vessels*

## Questions

### Chapter 1. Getting to know the vessel

QUESTION 1: Give three examples of sources for information to acquire details of the vessel.

QUESTION 2: Why is it important to check information acquired by others (give examples), and how do we check on-board loading computers?

QUESTION 3: Give eight examples of information that is useful to obtain upon joining a vessel and will be helpful to get acquainted with it?

QUESTION 4: What is meant by light ship, and what is included/excluded?

QUESTION 5: What is regarded as ‘the constant‘ of a vessel? Give examples. In addition clarify how this constant may change over time or depending on the situation.

QUESTION 6: Explain the TPC (tons per centimetre) and why this is specific for each vessel yet different for each loaded condition.

QUESTION 7: Explain what MCT or MCTC is and how we use this information while loading or discharging a vessel.

QUESTION 8: Explain and give examples as to why each vessel could have different trim requirements.

QUESTION 9: Draw three different types of ballast tanks you might find on a vessel.

QUESTION 10: Explain why it is important to understand the tank top and deck load with regards to loading of a vessel. Which factors may influence this and why might it be different from vessel to vessel?

QUESTION 11: Name three different types of hatch cover systems. Give a positive and a negative effect that each type might have on operations on board.

QUESTION 12: With regards to lashing equipment on board, which information would be important to be aware of?

QUESTION 13: Which documents would you consult when cargo needs to be lashed, and what key points would you take into account?

## Chapter 2. Receiving loading orders

QUESTION 1: What does it mean when a vessel is in charter and what types of charters can you mention?

QUESTION 2: Describe the different responsibilities or functions of a charterer and operator.

QUESTION 3: Name the two most used markets in the shipping industry and the difference between them.

QUESTION 4: Give an explanation of the following terms often used in loading order:

- TO LOAD FULL AND COMPLETE
- MOLOO
- SHEX/SSHING
- LAYCAN

QUESTION 5: How is a lumpsum cargo different to a regular cargo?

QUESTION 6: What is demurrage and in what regard is it linked to the notice of readiness and statement of facts?

QUESTION 7: What does a vessel’s agent do and which party should he represent?

## Chapter 3. Calculations and preparations

QUESTION 1: Describe the chain of thought regarding the preparation of the loading progress by a series of questions one should ask in setting up a stowage plan.

QUESTION 2: Which books and documents should be consulted in particular when preparing for a cargo loading/discharging operation?
QUESTION 3: Can a vessel load on its summer draft mark when a winter zone is expected during transit?

QUESTION 4: What role does the density of outboard water play in the loading process? Secondly, how may the density of water play a role?

QUESTION 5: How do we calculate the quantity of cargo (weight) that can be loaded at a certain port?

## Chapter 4 . Draft Survey

QUESTION 1: What can influence the different outcomes of a draft survey?

QUESTION 2: What roles do different surveyors play in the process?

QUESTION 3: What is the role of a P&I surveyor?

QUESTION 4: Give three examples of information to be gathered in preparation for a draft survey.

QUESTION 5: Define the steps taken in a draft survey.

QUESTION 6: How can you determine the density of the water and at what stage would you check it?

QUESTION 7: What is the best time to read the draft when there is a swell in a port?

QUESTION 8: How do we determine the means of mean?

QUESTION 9: Why do we need to correct the drafts taken towards the perpendiculars?

QUESTION 10: Why do we need to correct for the trim of the vessel, and can you explain why we do not do this in two situations.

## Chapter 5. Stowage plan and hold preparations

QUESTION 1: Why do we make a stowage plan?

QUESTION 2: What information could be relevant in a stowage plan of the crew of the vessel, and which vessel would be relevant for the shore crew?

QUESTION 3: Name a couple of guidelines/rules to take into consideration for constructing a stowage plan (and actually loading the vessel accordingly).

QUESTION 4: Describe the different stages (different types) in stowage plans.

QUESTION 5: What is a loading plan, and give examples of what might be described in it?

QUESTION 6: Describe the thought process (steps) of making a stowage plan.

QUESTION 7: What is an advantage and disadvantage of loading computer or programs with regards to stowage plans?

## Chapter 6. Stability calculations

QUESTION 1: What types of stability do we have, and can you explain how they work?

QUESTION 2: Why does a vessel stay afloat even though it is made from many tons of steel?

QUESTION 3: Why does a vessel increase in draft when a cargo is loaded?

QUESTION 4: What is the most important point in intact, dynamic and longitudinal stability and how is it used in the different types of stability?

QUESTION 5: How do we determine the VCG or LCG of a vessel?

QUESTION 6: How do the intact and dynamic stability relate to each other?

QUESTION 7: When does FSM (free surface moment) come into play, and what effect will it have on the stability?

QUESTION 8: Explain the terms upright torque and remaining upright torque. Explain how they relate to the GM and GZ?

QUESTION 9: Name the criteria for intact/dynamic stability, and explain what the rule of Simpson affects it?

QUESTION 10: From which point are all distances measured in regards to longitudinal stability?

QUESTION 11: Why do we need to apply trim corrections?

QUESTION 12: What can we do with the gravity displacement law?

QUESTION 13: Why additional calculations have to be made for grain or grain-like cargoes?

QUESTION 14: How can we minimize shifts (grain heeling moment) in the hold?

## Chapter 7. Bulk cargo

QUESTION 1: Which two books are important for bulk cargo?

QUESTION 2: What types of bulk cargo are there?

QUESTION 3: What is meant by liquefying of cargo, explain how that happens and if there is any criteria.

QUESTION 4: Give different reasons for why a cargo could combust?

QUESTION 5: What is a major safety issue with regards to oxidizing cargos and organic cargoes?

QUESTION 6: What is meant by the term cargo ratio of a vessel?

QUESTION 7: Give multiple reasons why and how we would separate cargo within a hold.

## Chapter 8. Breakbulk cargo

QUESTION 1: Which particular detail of the cargo would be of major interest in this kind of cargo?

QUESTION 2: What is the difference between tiers and layers of breakbulk cargo?

QUESTION 3: What types of break bulk cargo can you mention?

QUESTION 4: What do you take into account when loading round objects into the hold on multiple layers?

QUESTION 5: What is important with regards to break bulk cargo if we look at volume?

QUESTION 6: What do you take into account when loading heavy cargo like project cargo or steel?

QUESTION 7: What is of utmost importance when planning a heavy load?

QUESTION 8: What would you take into consideration if one needs to load for multiple ports or multiple different types of cargo?

QUESTION 9: What do you take into account with regards to the shore crew compared to the vessel’s crew while loading break bulk cargo?

## Chapter 9. Grain and grain-like cargoes

QUESTION 1: Why is grain cargo considered a dangerous cargo even though we eat it?

QUESTION 2: Why does grain shift under an angle?

QUESTION 3: Which documents and books should you consult before loading grain?

QUESTION 4: What are the extra stability criteria a vessel has to comply with?

QUESTION 5: What is maximum grain heeling moment/grain heeling moment of a vessel, and what does it depend on?

QUESTION 6: What do we do to reduce the grain heeling moment?

QUESTION 7: What impact would the stowage factor have on the loading of the grain?

## Chapter 10. Timber deck cargo

QUESTION 1: What is the main objective when preparing a stowage plan for timber deck cargo?

QUESTION 2: What do we mean by the term double negative?

QUESTION 3: What do you regard to be a good stability for deck cargos and why?

QUESTION 4: What is the danger with absorption with regards to timber deck cargo?

QUESTION 5: Besides keeping the deck cargo in place, what other function does the lashing play in the securing of the cargo?

QUESTION 6: What is a big disadvantage when using steel cables or chains for securing deck cargo?

QUESTION 7: Under what circumstances would you prefer trunk packages to be below decks and length packages on the deck? Under what circumstances would you have them vice versa?

QUESTION 8: Why is a break bulk cargo generally placed in a pyramid system?

## Chapter 11. Paper work

QUESTION 1: Explain who is responsible for the cargo in the whole chain of loading, transit and discharging?

QUESTION 2: When a clean bill of loading needs to be issued by the captain, what actions would you take with regards to damaged cargo that needs to be loaded?

QUESTION 3: What data would you record into the mate's receipt and which should be added on the bill of lading?

QUESTION 4: Which details will be or should be stated in the statement of facts?

QUESTION 5: Why is it important that the captain is informed in due time if a cargo weight is not the same as expected?

QUESTION 6: Name a couple of examples of remarks that could be made on the bill of loading, if so is the B/L regarded clean or dirty?

QUESTION 7: What is a rain letter and how does one proceed when one is received?

## Chapter 12. Dangerous goods

QUESTION 1: Which convention regulates the transport of dangerous goods?

QUESTION 2: Which certificate will indicate if and which dangerous goods can be carried?

QUESTION 3: How many classes are there and what are they?’

## Chapter 13. Container cargo

QUESTION 1: What does CSC stand for and why do we find it on containers?

QUESTION 2: What types of containers can you mention?

QUESTION 3: What is a Tare weight of a container and what is a payload?

QUESTION 4: In what regard is a position of a container expressed in a stowage plan?

QUESTION 5: Name different types of container lashings.

## Chapter 14. Hold cleaning and environment

QUESTION 1: Which regulation dictates the disposal of washing water, and why?

QUESTION 2: Name three ways of disposing of washing water?

QUESTION 3: What determines which of the 3 options is chosen?

QUESTION 4: Where can this information be found?.

QUESTION 5: What kind of document needs to be released by the shipper with this information?

QUESTION 6: Where should information on the disposals be indicated?

QUESTION 7: Can you name a couple of special areas?

QUESTION 8: Which convention regulates the ballast water and where is information regarding ballast water inserted?'