



EXAMINER'S REPORT NOVEMBER 2018

LINER TRADES

General comments.

We can only emphasise the importance of keeping pace with the current issues in liner trades. Whilst the fundamentals of the liner shipping industry through the syllabus remain similar what sets students apart in this exam continues to be those that answer the paper with an ability to look beyond rote learning and have a passion for this industry both for those working in the industry or just studying.

The below summary we hope will guide students for those either re-sitting this exam or taking it for the first time. Well done to many of you who passed

1. a) Draw a profile and cross-section of a feeder (up to 3000 Teu) vessel and include within the drawing the main features of the vessel and its dimensions.

b) Describe TWO trade routes (including load and discharge ports where this vessel would operate and the likely developments which could affect its deployment in the next few years noting the recent consolidation in feeder market.

Use the world map provided to support your answer.

As usual a good drawing is expected, and we would expect clear lines as well as proper measurements etc (these are highlighted clearly in the course books). Three types of vessel are Sub Panamax 2,700 Teu or 2,000 Teu and Handy size 1,700 Teu. Many have cargo gear making them versatile units in less resourced ports.

They have heavy use in Intra-Asia trades as well as many Asia feeder networks. They are also heavily used in intra Europe both for feeders and stand-alone trades (North Europe – East Med etc.). Short route services into numerous markets where volumes can sustain this type of vessel (SE Asia – East Africa / Gulf etc.).

Likely developments depend to large extent on the cascade of Panamax post canal widening and what happens to excess vessels. Students could mention the recent acquisition of Unifeeder by DPW and more could happen whilst larger carriers increasingly take control of feeding and heavily influence the way independent feeder companies work. Students who displayed an understanding of the current dynamics of this market secured good marks.

Drawings require measurements and clear labels. We can only reiterate the importance of good drawings and trade lane understanding. So many marks can be secured relatively easy on such a question.

2. Answer both parts of the question.

a) Explain in detail what vessel operating costs are and the revenue sources which should cover these costs.

b) Discuss how costs can be reduced by the carrier in situations where revenue does not cover costs.

The first part of the question was simply looking for students to itemise and show an understanding of the cost items of running a service [ships, fuel, port charges – i.e. fixed costs and variable costs like containers etc.]. The revenue element is straightforward isolating freight charges [all types] and THC's, surcharges and inland tariffs. Many students covered this part of the question well but in several cases simply stopped at that point and excluded themselves from 50% of the question marks. There is still confusion in this type of question comparing notably bulk carrier costing vs. how liner looks at this. The two are very different so marks were lost there also.

The second part of the question simply looks for an understanding of cost cutting that can take place (slow steaming, ship idling, partnerships like VSA, void sailings scrapping, scale, port rationalisation). The key fundamental of the entire question is the understanding of supply/demand which carriers globally have not managed to achieve in the last 12-18 months and despite consolidation.

3. Rising bunker prices are affecting carrier costs. The new MARPOL2020 global low sulphur fuel regulation is going to further affect price and availability of bunker fuel. Discuss these changes and the measures carriers will need to employ to combat this.

This was such an important question in today world and notably from 1st January 2020.

This was a two-part question and focused on what carriers did in June/July 2018 in respect of emergency fuel surcharges in the face of rising bunker costs. Students could have charted these events how carriers implemented this.

- Emergency Bunker Surcharge by container / Teu / trade / reefer
- Only applied where existing bunker surcharge not applied
- Some lines had calculations which would remove if barrel price went below certain level.
- Backlash from cargo interest
- Correcting supply/demand
- Why not apply existing bunker mechanism etc?

The second part was important as it was looking for student's knowledge on MARPOL 2020 and why with options for carriers:

- IMO rregulation applied globally reducing low sulphur limit to 0.5% from 3.0%
 - WEF 1/1/2020 already an issue with longer term contracts due to the expected massive price increase per tonne of fuel
 - Options = Hybrid Oil, Scrubber conversion, LNG
 - Low sulphur gas oil [LSGO] is currently US\$ 150-200 per tonne higher than standard bunkers but price increase will be enormous once demand supply kicks in [an uncertain final figure as well]
 - MARPOL2020 is a game changer in terms of how many lines will operate their fleets and get customers to pay for the higher prices.
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4. Using the world map provided, describe TWO of these trade routes showing these trades and their key ports of call. Describe size of trade, size of vessels used and key cargoes moving in both directions.

- **Europe to East Coast South America**
- **Europe to South Africa**
- **Asia to East Coast North America**

As always with such a question a good map of the two trade routes with clear details / ports etc will secure good marks. It displays to the examiner that the student really knows the trade well. A summary of the trades would be as below and a little expansion on this would score well with the maps:

Europe to ECSA Trade – Balanced trade with 950,000 Teu southbound and 850,000 Teu northbound. Capacity deployed exceeds demand quite heavily with southbound utilisations 50-55% (trade improved southbound recently) whilst northbound (reefer dom) is 65-75% utilisation due to heavy nature of cargo in the northbound leg. Ship system size now quite large [average deployment 7500-9000 teus range. Aside from ports / cargo the large realignment to take place because of HSD/MSK dominance. Example Maersk off-loading Mercosul line to CMA-CGM. Cargo SB (auto / finished goods / chems / CKD and trucks). Cargo NB includes coffee, reefer, poultry sugar, cotton, paper and soya.

Europe to South Africa Trade – The technical non-dominant leg [northbound] is the dominant leg due to high volume reefer and price. Southbound trade is approx 450,000 teus and growing marginally at present. Northbound trade is 375,000 teus which includes 150,000 teus of reefer (fruit). Utilisations good in both directions due to only two strings and barrier to entry high with both strings deploy high reefer capacity as well as large units (8000-9000 teus capacity). Southbound cargo like ECSA has high auto content due to motor manufacturers in South Africa as well as chemicals, food stuffs, retail consumer goods. NB is fruit (grapes / apples / pears and citrus), paper products, wine, canned goods, minerals (chrome ore / copper) and auto cars.

Asia to US West Coast Trade – approx 16.5 million teus East Bound (to USA) and 6-7 million teus West Bound (from USA). Important that students highlight trade dynamics due to the Panama Canal so there are three effective routes in Asia – USWC / Asia – USEC via Panama and Suez. The latter now declining due to vessel size allowed through Panama Canal so service too WC and EC running 8000 – 13000 teus.

Most of this structure is clearly detailed in liner trades books and there were some good answers.

5. Choose TWO of the following cargoes. Identify TWO major trades on which they are shipped detailing the main ports of loading and discharge. Explain the types of container equipment used and any special requirements or precautions that may need to be taken to protect the cargo.

- a) Avocados
- b) Bulk non-hazardous Chemicals
- c) Coffee
- d) Wine
- e) Scrap Metal

Students were required to cover two cargoes and show good knowledge of the trades. It is important that students build up a good knowledge of cargo and routes as whilst it can be argued the box covers up what is in the container, commodities and markets drive the trades and carriers marketing teams need to have good knowledge of what drives trades to shape the product.

A summary of commodities is detailed below:

a) Avocados are a massively growing trade with large volumes being exported from Kenya, South Africa, Mexico (massive), Peru, Chile and numerous other markets. Trade size is more than 2 million tonnes and consumption is feeding demand. Requires 40ft HCR and with controlled atmosphere capability to put fruit to sleep (climacteric fruit). There are other forms of chemical CA in use as well.

b) Chemicals can use a variety of equipment 20fts and 40fts as well as tank containers where chemicals are liquid depending on packaging and trade requirements. The move generally from advanced economies to less developed countries (but can also increasingly move from less developed economies as companies locate to lower cost base). The trade is vast and pretty much any trade lane can be used to describe this.

c) Coffee is largely shipped in 20ft containers with vents (important from hot regions such as Brazil, Vietnam / East Africa etc...) and trades on an LCL/FCL contract making the importance of cargo checking procedures to avoid claims.

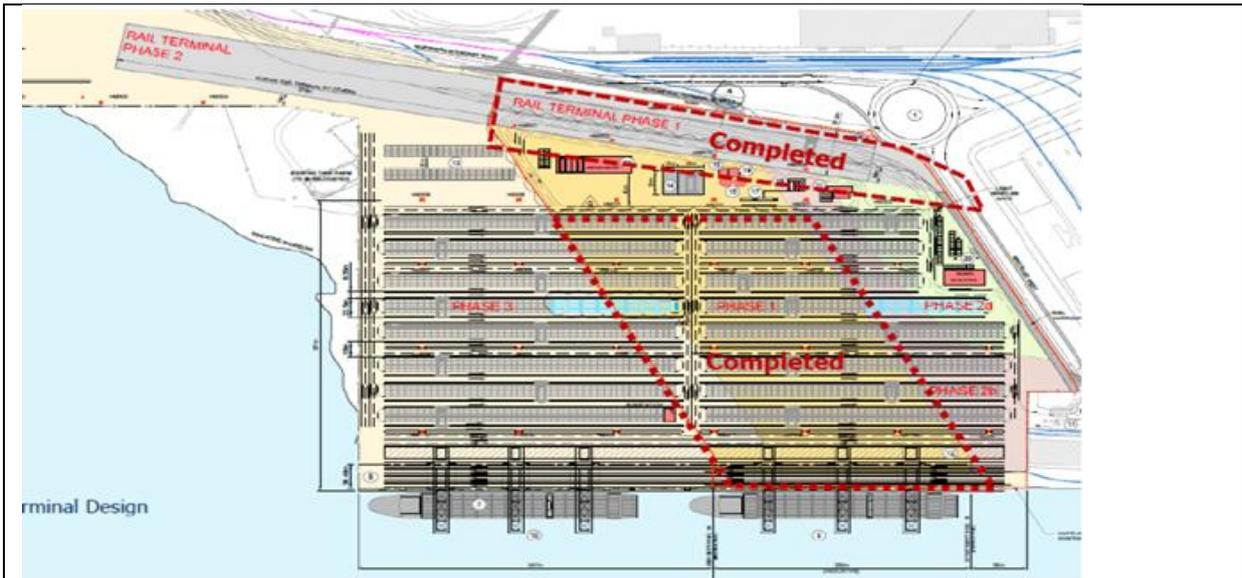
d) Wine moves on several new world wine routes (ANZ / RSA / USA / Chile etc.) using 20ft and 40ft dry containers as well as tank containers and increasing use of Flexi-tank bags in 20ft containers and 20ft and 40ft refrigerated containers for high value product to protect quality. Old world wines would move intra Europe and exported deep sea as well.

e) Scrap metal is a global trade over 110 million tonnes per annum and quite a lot of this moves in containers (20ft GP's only). Large trade into Turkey, China, India and Vietnam from Africa, USA, Europe (USA = 25% of world trade). Key cargo care aspects are packaging (baled vs. loose the former preferred to avoid container damage), some carriers require plywood lining for protection and care must be taken to accept registered exporters avoiding oil residue (engines) etc.

6. You are the owner of a small container and multipurpose port on a major trade lane with good hinterland and other port connections with land available for expansion. Describe how you could improve the ports ability to manage a larger share of cargo moving on the trade lane and support your answer with a port development plan layout diagram.

The question required a good drawing of a port plan. Below is that of Maputo (operated by DPW) phase 2 expansion which adds a lot of stacking space as well as lengthening of berth to accommodate extra services.

A drawing similar to the below quality would score high



The narrative to this question must be reasonably expansive and outline:

- Engaging with existing port operators/carriers. Also, practitioners and potential users to devise a port master plan for development
- An investment plan for increasing berth lengths and dredging for larger capacity vessels
- An investment plan for increasing plug points [reefer cargo] gantry cranes, reach stackers
- Promoting also use of port with increased stacking area to promote hub for transshipment cargo into other feeder services
- Discussion with country railway network /customs internally and over country borders to promote greater use and attractiveness of transit cargoes through the port to compete with other regional ports.

It is always interesting on well answered questions to see student's local knowledge of their own ports plans and the passion this growth generates.

Q7. Explain the background and requirements of the IMDG code. Identify each of the classes within the code and comment specifically on TWO of these classes in respect of the importance of segregation.

A good summary of the code and background to IMO, SOLAS, MARPOL etc were essential and most students displayed a solid knowledge of this subject. Elsewhere correct class summary was generally answered well as well as expansive detail on 2 specific classes related to segregation. Generally, those students who lost marks lost them on this part.

8. Round the World, Hub and Spoke, End to End and Pendulum are all terms used to describe types of service. Using the world map provided to support your answer describe TWO of these services explaining their advantages and disadvantages.

Students were required to cover two services and show good understanding of each.

Whilst the RTW type of service is the least used of these services it is increasingly developing because of the wider Panama Canal. It therefore did attract several attempts but regrettably only the history [US Lines / Evergreen] and not currently evolving RTW-Pendulum styles. All four types of

service have strengths and weaknesses and none of them are better than the other but are simply styled to suit the operator / service required for the trade. Students should be able to highlight both strengths and weaknesses of both selections.

The second part supported by service map should be the easier part provided the student correctly identified the correct summary for a selected service. This was a relatively open question for a student that had researched strings and services well.