

ΕΞΕΤΑΣΤΙΚΗ ΠΕΡΙΟΔΟΣ ΙΟΥΝΙΟΥ 2018
ΜΑΘΗΜΑ ΝΑΥΤΙΚΑ ΑΓΓΛΙΚΑ IV, Δ ΕΞΑΜΗΝΟΥ
ΘΕΜΑΤΑ

EXERCISE 1. Answer one (1) of the following questions in full: (1,5 p.)

- i. Write five recommendations to avoid the risks of an accident when working on deck in heavy weather.
- ii. Write five principles/ points related to the safe conduct of pilotage

EXERCISE 2. Fill in the missing words. The first letter is given. (1 p.)

Risk assessment is about evaluating the risk, taking into account the l.....(1)of harm and the potential c.....(2). What we must do is try to m.....(3) the risk to a t.....(4) level, which is called ALARP, As Low as R.....(5) Practicable.

The anchor gear: the anchor chain is stored in the chain locker and runs through the s... (6)pipe, via the g... (7)wheel of the windlass through the h...(8) pipe to the anchor. The f...(9) are the ones which offer grip into the seabed.

As per ISM, the Master has the o... (10) authority to make decisions with respect to safety and pollution prevention.

EXERCISE 3. Write the term. (1 p.)

1. An accident that almost happened
2. The person who provides a link between the company and the ship, as per ISM.
3. Paint used for underwater hull protection
4. A systematic and documented evaluation of the effectiveness of a safety activity and its component parts
5. The capacity of the anchor to remain fixed to the sea bottom.

EXERCISE 4. Match the synonyms/ definitions (1 p.)

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|-----------------|--|
| 1. Next of kin | A. Continue to do something despite difficulties or opposition |
| 2. Prompt | B. Relevant for the particular case |
| 3. Detrimental | C. That can be recognized |
| 4. Applicable | D. Damage or deterioration sustained by continuous use |
| 5. Identifiable | E. The closest living relative |
| 6. Sufficient | F. A slight hollow in a hard even surface made by pressure or a blow |
| 7. Wear | G. Cause someone to take a course of action |
| 8. Dent | H. Harmful, damaging |
| 9. Persist | I. Swelling on the surface of the skin filled with liquid |
| 10. Blister | J. Adequate |

EXERCISE 5. Fill in the missing words. Use the words given. There are extra words. (2 p.)

wide berth, predecessor, implementation, competence, morale, remitted, litigation, unattended, itinerary, confiscated, reimbursed, manifest

1. The ISM Code provides guidelines for the proper ... of safety and pollution prevention management.
2. Never leave baggage
3. Mine clearing operation in vicinity of your position. ...requested.
4. Wages for seafarers are ... to their bank account.
5. The DPA's ... included a visit to two vessels in Rotterdam.
6. Your expenses will be ... by the company. All you need to do is keep the receipts.
7. The package contained liquid and was ... at the airport.
8. The Master took command following a short handover from his
9. After the occupational accident, which resulted in the Bosun's injury, the crew is suffering from low
10. An STCW Certificate of is required for an OOW to work on the bridge.

EXERCISE 6. Fill in the correct prepositions. (1 p.)

- I've worked eight years ... (1) sea, mainly ... (2) bulk carriers, for different companies, (3) a temporary basis.
- Your country is exempt ... (4) the visa requirements.
- The main engine was ... (5) tenminutes notice. The Master veered more cable ... (6) receipt of a gale warning.
- Check the radar ... (7) frequent intervals. The ECDIS is ... (8) your disposal.
- The safety committee made recommendations ... (9) behalf of the crew, to comply ... (10) ISM requirements.

EXERCISE 7. READING COMPREHENSION (2,5 p.) Read the text and do the exercises below.

(“The Hazards of Ice”, The Swedish Club, Letter 2-2003, abridged)

Introduction

The Swedish P&I Club annually deals with a large number of ice-related claims. The Club’s experience is that masters and shipowners on many occasions seem to be surprised by the force, strength and toughness that ice constitutes and the severe damage it might inflict on a vessel. In the past winter, among other areas, the Gulf of Finland and the approach to St. Petersburg witnessed a lot of incidents where ships were not entirely fit for the purpose, masters not sufficiently trained for the task and shipowners did not seem to take the issue of ice seriously enough. The main reasons are lack of knowledge and experience of ice, no doubt coupled with commercial reasons and considerations. This article highlights some of the factors and dangers that seafarers are exposed to when navigating through ice.

Navigation

Navigation through ice-infested waters is always a difficult and delicate task. Poor visibility caused by fog and/or snowfall is often related to icy waters. Sight must be given very careful consideration, for false horizons are frequently observed in ice. One important aid is the radar, which has been found to be a most valuable tool for safe navigation when used judiciously. It is necessary to optimise the radar settings in order to be able to detect icebergs, or ice walls in ice-covered waters. Other valuable aids are the various electronic positioning fixing systems, such as the GPS. Good searchlights should also always be available during the hours of darkness.

Beset

The vessel’s speed in ice requires careful consideration by the master. If a vessel goes too slowly, she risks being beset, if too fast she risks damage from collision with floes. Experience has shown that vessels that are not ice-strengthened, and that do not maintain a speed of about 12 knots in open water, often become firmly beset even in light ice conditions. Furthermore, ships operating in ice should be ballasted and trimmed so that the propeller is completely submerged and as deep as possible, but without excessive stern trim which reduces manoeuvrability. When operating in ice, the first principle for making a successful passage is to maintain freedom of manoeuvre. Once a ship becomes trapped, she will go wherever the ice goes. In ice concentration, three basic ship handling rules apply, namely, keep moving, even if very slowly, try to work with the ice movement and not against it, and, do not forget that excessive speed leads to ice damage. Every opportunity should be taken to use leads through ice. When not accompanied by an icebreaker, it is unwise to follow a shore lead with an onshore wind blowing, as moving ice may force a vessel aground. The most serious danger in connection with ice is from the pressure of the ice, which may crush the hull and tear off the ship’s bottom. A ship beset in ice can drift with the ice against shoals and the shore. Every precaution should therefore be taken to avoid this situation. Anchoring should as a matter of course be avoided in a heavy concentration of ice. If the ice is moving, its tremendous force may break the cable. If several vessels are to be assisted at the same time, a convoy is to be formed.

Ice accumulation

Ice accumulation on ships is another serious danger of water in its frozen form. This can be a threat to the ship, cargo and crew when it accumulates on the hull and superstructure of a ship. Ice accumulation may occur from fog, freezing drizzle, rain or wet snow, or spray or seawater breaking over the ship (when the air temperature is below the freezing point of seawater (-2°C). The ice on deck and on the rigging is liable to endanger those on deck by falling down or simply because of the plain slipperiness of it. Ice may also damage radio aerials and radar and satellite equipment. This is a subsequent danger to the further advance of the vessel. However, by far the most dangerous situations are when a ship encounters heavy weather and rough sea, with heavy seas breaking over the vessel, while the temperature is running low. This can alter a ship’s GM (the metacentric height, which is a measure of ships stability) to critical points. In extreme cases this has led to the capsizing of vessels. The dangerous conditions are those in which strong winds are experienced, above force 6, and the air temperature falls below -2°C.

(a) Match the two halves of the sentences that summarize the points of the article. (0,5)

- | | |
|--|---|
| 1. Trim by the stern | a. ... can underestimate the potential damage of ice. |
| 2. Masters and shipowners | b. ... can reduce manoeuvrability |
| 3. Excessive speed | c. ... can break the anchor cable. |
| 4. The strength of ice when it moves | d. ... can be the most dangerous situation. |
| 5. The combination of rough sea and freezing temperature | e. ... can lead to ice damage. |

(b) Explain the following terms in English by giving a definition or synonym. (1,5 p.)

- (1) claims, (2) beset, (3) floes, (4) submerged, (5) ice concentration,
(6) leads, (7) shoals, (8) convoy, (9) ice concentration, (10) liable

(c) Answer the following questions: (0,5 p.)

1. What is the “false horizon” effect/ phenomenon and how can it be avoided?
2. How can moving ice cause a vessel to run aground?

Οι εισηγήτριες,
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