



UDDANNELSESBOG  
FOR  
INDLEDENDE SØPRAKTIK

*TRAINING RECORD BOOK  
PRELIMINARY SEAGOING SERVICE*

**SKIBSOFFICERSUDDANNELSEN**  
***SHIP'S OFFICER TRAINEES***

PUBLISHED BY THE DANISH MARITIME AUTHORITY  
CENTRE FOR SEAFARERS AND FISHERMEN  
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**DATABLAD FOR ASPIRANTEN:**

(Udfyldes af aspiranten)

**Efternavn** \_\_\_\_\_

**Fornavne** \_\_\_\_\_

\_\_\_\_\_

**Cpr. nr.** \_\_\_\_\_

**Postadresse** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Tlf. nr.** \_\_\_\_\_

\_\_\_\_\_

**Søfartsbog nr.** \_\_\_\_\_ **Udstedt dato** \_\_\_\_\_

**Rederi** \_\_\_\_\_

**Adresse** \_\_\_\_\_

\_\_\_\_\_

**PARTICULARS OF THE TRAINEE:**

(To be filled in by the Trainee)

**Family name** \_\_\_\_\_

**First name** \_\_\_\_\_

\_\_\_\_\_

**Cpr. nr.** \_\_\_\_\_ **Date of birth** \_\_\_\_\_  
(*Danish citizens only*) (*Non Danish citizens only*)

**Home address** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Phone no.:** \_\_\_\_\_

\_\_\_\_\_

**Seamans book no.** \_\_\_\_\_ **Issue date** \_\_\_\_\_

**Company** \_\_\_\_\_

**Address** \_\_\_\_\_

\_\_\_\_\_

## Attestation for eftersyn og kontrol hos uddannelsesofficeren

Aspiranten skal jævnligt forevise uddannelsesbogen til uddannelsesofficeren for påtegning af udførte emner og discipliner.

| SKIBETS NAVN: | UDDANNELSESOFFICER: | MØNSTRINGS-DATO: |  | BEMÆRKNINGER<br>(Herunder aspirantens indlæring og rutine) | DATO OG<br>UNDERSKRIFT: |
|---------------|---------------------|------------------|--|------------------------------------------------------------|-------------------------|
|               |                     |                  |  |                                                            |                         |
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## Certification of inspection and control by the Training Officer

The Trainee must frequently present the Training Record Book to the Training Officer for endorsement of completed subjects and disciplines.

| SHIP'S NAME: | TRAINING OFFICER: | PERIOD: |     | REMARKS:<br>(Including he trainee's learning process and routine) | DATE AND SIGNATURE |
|--------------|-------------------|---------|-----|-------------------------------------------------------------------|--------------------|
| STAMP        | CAPITAL LETTER    | FROM:   | TO: |                                                                   | TRAINING OFFICER   |
|              |                   |         |     |                                                                   |                    |
|              |                   |         |     |                                                                   |                    |
|              |                   |         |     |                                                                   |                    |
|              |                   |         |     |                                                                   |                    |
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|              |                   |         |     |                                                                   |                    |

## Attestation for eftersyn og kontrol hos skibsledelsen

Bogen skal forevises skibsledelsen til eftersyn/kontrol mindst en gang om måneden samt ved på- og afmønstring.

[illegible]

### Certification of inspection and control by the Senior Officers

The Training Record Book must be presented to the Senior Officers (Master or Chief Engineer) for review/control at least once every month and when joining/leaving the ship.

| SHIP'S NAME:<br>STAMP | REMARKS: | SENIOR OFFICER:<br>MASTER OR CHIEF<br>ENGINEER | DATE AND SIGNA-<br>TURE: |
|-----------------------|----------|------------------------------------------------|--------------------------|
|                       |          |                                                |                          |
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## Attestation for eftersyn hos rederiet

Bogen skal som minimum forevises rederiet til eftersyn/kontrol efter afslutningen på hver praktikperiode.

| REDERIETS NAVN:<br>STEMPEL | BEMÆRKNINGER: | NAVN:<br>MED BLOKBOGSTAVER | DATO OG UNDER-<br>SKRIFT: |
|----------------------------|---------------|----------------------------|---------------------------|
|                            |               |                            |                           |
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## Certification of inspection by the Company

The Training Record Book must as a minimum be presented to the company for review/control upon completion of the seagoing service.

| COMPANY'S NAME:<br>STAMP | REMARKS: | NAME:<br>CAPITAL LETTER | DATE AND SIGNA-<br>TURE: |
|--------------------------|----------|-------------------------|--------------------------|
|                          |          |                         |                          |
|                          |          |                         |                          |
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## Attestation for godkendelse på skolen/centret

Bogen skal forevises skolen for godkendelse efter afslutningen på begge praktikperioder til søs.

Efter indledende søpraktik (1. praktikperiode):

| SKOLENS NAVN:<br>STEMPEL | NAVN:<br>MED BLOKBOGSTAVER | DATO OG UNDER-<br>SKRIFT: |
|--------------------------|----------------------------|---------------------------|
|                          |                            |                           |

Evt. bemærkninger:

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## Certification of approval by the School/Centre

The Training Record Book must be presented to the School/Centre for review/control upon completion of both periods of seagoing service.

**After preliminary seagoing service (1st period of seagoing service):**

| SCHOOL'S NAME:<br>STAMP | NAME:<br>CAPITAL LETTER | DATE AND SIGNA-<br>TURE: |
|-------------------------|-------------------------|--------------------------|
|                         |                         |                          |

**Remarks:**

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## **Introduktion**

For at kunne fortsætte på skibsofficersuddannelsens teoridele skal aspiranten have fulgt et af Søfartsstyrelsen godkendt uddannelsesprogram for praktikperioderne.

Uddannelsesbogen, der udgives af Søfartsstyrelsen, skal udleveres og introduceres til aspiranten inden denne afslutter 1. teoridel.

Når aspiranten møder på skolen efter den indledende praktikperiode, skal uddannelsesbogen fremlægges på skolen, som vil kontrollere, at den er ført i overensstemmelse med denne vejledning herunder at der under emnerne (uddannelsesmålene) er kvitteret for udarbejdelsen af de obligatoriske arbejdsopgaver.

Aspiranten har selv ansvaret for at de obligatoriske arbejdsopgaver opbevares sammen med uddannelsesbogen.

Uddannelsesbogen udgives på både dansk og engelsk.

## **Formålet med uddannelsesbogen**

Formålet med uddannelsesbogen er, at den skal:

- styre den praktiske uddannelse under praktikperioden, så aspiranten, skibsledelsen og uddannelsesofficeren bliver vejledt om opfyldelse af målene for praktikperioden, og
- tjene som dokumentation for, at de stillede mål er nået.

Uddannelsesbogen er et vigtigt led i uddannelsen til skibsofficer. Uddannelsesbogen kræves gennemgået af alle aspiranter (skibsofficersstuderende) med henblik på at kunne dokumentere gennemførte uddannelsesmål som aspirant i den indledende praktikperiode, hvor den praktiske uddannelse har været i overensstemmelse med uddannelsesbogen.

Den fortsatte uddannelse vil være betinget af, at denne uddannelsesbog i udfyldt stand kan forevises. Uddannelsesbogen er aspirantens personlige ejendom, og det forventes, at bogen opbevares på en betryggende måde, således at den altid fremtræder i ordentlig stand.

## **Vejledning vedr. praktiktiden til søs**

- Søfartsstyrelsen opfordrer skibsledelsen, uddannelsesofficeren og rederiets uddannelsesansvarlige til løbende at evaluere aspirantens uddannelse om bord.
- Den skitserede uddannelse i uddannelsesbogen må ikke opfattes som ufravigelig, idet den alene forudsættes gennemført i den udstrækning, som skibets udrustning, indretning, ladning og fart gør det muligt. De generelle punkter, herunder arbejdsopgaver, skal dog gennemføres.

## **Introduction**

In order to continue to the theoretical modules of the ship's officer's trainee programme, the trainee must have completed practical training periods according to a training programme approved by the Danish Maritime Authority.

The Training Record Book, which is published by the Danish Maritime Authority, must be handed out and introduced to the trainee before he or she completes the 1<sup>st</sup> period of theory.

When the trainee attends school after the initial training period, he or she must present the Training Record Book to the school, which will check that it is in accordance with these guidelines, including whether completion of the mandatory tasks under the subjects (training objectives) in the Training Record Book have been signed off.

The trainee is responsible for keeping the mandatory tasks together with the Training Record Book.

The Training Record Book is published in both Danish and English.

## **The purpose of the Training Record Book**

The purpose of the Training Record Book is to:

- manage the practical training during the trainee's practical training period, so that the trainee, the ship's management and the training officer are properly informed about meeting the objectives of the practical training period, and
- serve as documentation that the objectives have been met.

The Training Record Book is an important element in the training programme for ship's officer. All trainees (ship's officer students) must complete the Training Record Book in order to document the training objectives completed as trainee in the preliminary training period under conditions where the practical training has been in compliance with the Training Record Book.

The trainee will not be able to continue his training if he or she is unable to present the Training Record Book in completed form. The Training Record Book is the trainee's personal property, and it is expected that the book is kept in a safe manner, so that it is in good condition at all times.

## **Guidelines concerning seagoing service**

- The Danish Maritime Authority encourages the ship's management, the training officer and the company's head of training to evaluate the trainee's onboard training on a continuous basis.
- The training outlined in the Training Record Book should not be considered mandatory, in that the only condition is that training be completed to the extent the ship's equipment, design, cargo and trade so allow. The general items, including tasks, however, must be completed.

- Uddannelsesbogen skal jævnligt forevises og drøftes med uddannelsesofficeren samt for godkendelse af arbejdsopgaver. Bogen skal endvidere forevises skibsledelsen til eftersyn og kontrol mindst en gang om måneden samt ved på/afmønstring
- Aspiranten har et medansvar for, at praktiktiden udnyttes på bedste måde, så der herved sikres den bedst mulige baggrund for den fremtidige gerning som skibsofficer.

Uddannelsesofficeren skal udelukkende kvittere med dato/sign for arbejdsopgaverne når aspiranten har opnået en tilfredsstillende rutine.

Man skal dog være opmærksom på, at selvom aspiranten har opnået en tilstrækkelig rutine til, at der kan kvitteres for gennemført opgave/emne i bogen, betyder det ikke, at aspiranten absolut skal fritages for videre indlæring eller deltagelse i de enkelte emner. Som eksempel kan nævnes, at aspiranten i lighed med resten af besætningen skal fortsætte med at deltage i alle former for øvelser i sikkerhedsberedskabet under hele udmønstringsperioden, for at aspiranten opnår den størst mulige erfaring og rutine.

Skibsledelsen/Uddannelsesofficeren kan endvidere tilføje yderligere relevante arbejdsopgaver og uddannelsesmål ved at foreslå yderligere obligatoriske skriftlige arbejdsopgaver.

- Det er vigtigt, at skibsledelsen/uddannelsesofficeren omhyggeligt anfører bemærkninger i uddannelsesbogen om den opnåede indlæring og rutine i udførelse af de praktiske arbejdsopgaver om bord.

Uddannelsesbogen kan derved benyttes som en skriftlig overlevering ved udskiftning af skibsledelse/uddannelsesofficer om bord, eller hvis aspiranten skifter til andre skibe. Den korte praktikperiode gør det nødvendigt, at der sker en grundig overlevering mellem uddannelsesofficererne, således at der bevares kontinuitet i uddannelsesforløbet, så det sikres, at oplæring i eventuelle svage punkter fortsættes i praktikperioden.

Det er vigtigt, at de anførte arbejdsopgaver i den indledende praktikperiode udarbejdes. Ellers vil uddannelsesbogen ikke kunne godkendes ved optagelse på skibsofficersuddannelsens efterfølgende teoridele.

#### **Aspiranten skal huske,**

- at udfylde uddannelsesbogens datablad,
- at få kvitteret for gennemført "Safety Familiarization" hurtigst muligt efter hver påmønstring, når den fornødne rutine er opnået,
- at få udfyldt skemaet 'Particulars of the Ship' i begyndelsen af udmønstringen,
- at gennemføre minimum 2 mdr.'s brovagtstjeneste for udstedelse af vagtholdsbevis i forbindelse med de første 6 måneder af den samlede søpraktik,
- at læse rederiets interne vejledning vedr. praktiktiden til søs,
- at uddannelsesofficeren skal kvittere for gennemførte emner samt eftersyn af bogen,
- at forevise uddannelsesbogen til skibsledelsen mindst en gang om måneden for eftersyn og kontrol,

- The Training Record Book must be presented to and discussed on a regular basis with the training officer, who must approve the tasks. Furthermore, the Book must be presented to the ship's management for review and check once a month and in connection with sign-on/sign-off.
- The trainee is responsible for exploiting the practical training periods in the best possible way, so that he gets the best possible basis for his future work as a ship's officer.

The training officer only has to sign for the work tasks with the date and his signature when the trainee has obtained satisfactory routine.

Note that even though the trainee has obtained enough routine for the training officer to sign for completed tasks/subjects in the book, this does not mean that the trainee is necessarily exempted from further learning or participation in the individual subjects. For example, just as the rest of the crew, the trainee must continue participating in all forms of safety emergency exercises during the entire period of seagoing service, so that the trainee may obtain the greatest possible experience and routine.

The ship's management/training officer can also add more relevant tasks and training objectives to the Training Record Book by suggesting further mandatory written tasks.

- It is important that the ship's management/training officer are careful to note down any comments in the Training Record Book on the level of learning and routine achieved by the trainee in his or her performance of tasks onboard ship.

The Training Record Book can thus be used as written communication and documentation in case the ship's management/training officer is replaced, or if the trainee changes to another ship. Since the duration of the practical training period is short, thorough transfer of information between training officers is very important in order to provide continuity in the training programme, so that training in any of the trainee's weak areas may be continued in the practical training period.

It is important that all tasks for the initial practical training periods are completed. Otherwise the Training Record Book cannot be approved when seeking admission to the theoretical modules of the training programme for ship's officer.

#### **The trainee should remember to**

- fill out the data sheet in the Training Record Book,
- have someone sign for his or her completion of "Safety Familiarization" as quickly as possible after each sign-on, once the necessary routine has been obtained;
- fill in the form "Particulars of the Ship" at the beginning of his seagoing service,
- complete at least two months' bridge watch keeping duty in order to have a watch keeping certificate issued in connection with the first 6 months of the complete period of seagoing service;
- read the shipping company's internal guidelines concerning onboard training;
- have the training officer sign off any completed subjects and reviews of the book;
- present the Training Record Book to the ship's management at least once every month for review and check;

- at forevise uddannelsesbogen til rederiet for eftersyn,
- at forevise uddannelsesbogen til skolen/centret efter afsluttet praktikperiode,
- at udarbejde de anførte arbejdsopgaver,
- at få godkendt arbejdsopgaverne inden afmønstring.

## Uddannelsesmål

Til beskrivelser af formål og mål i uddannelsen til skibsofficer er der så vidt muligt anvendt den samme klassifikation af uddannelsesmål.

Uddannelsesmålene skal ses som en rettesnor for den daglige indlæring, og som en hjælp til planlægningen af dagligdagen for aspiranten.

Som supplement til uddannelsesmålene ligger arbejdsopgaverne, som indeholder dele af uddannelsesmålene.

Når aspiranten har gennemført arbejdsopgaven/emnet og dermed opfylder de anførte uddannelsesmål på tilfredsstillende vis, skal uddannelsesofficeren/skibsledelsen kvittere ved at udfylde kvitteringsfeltet med dato/signatur i det dertilhørende skema.

## Logbog

Aspiranten skal under hele udmønstringen under både den indledende samt den afsluttende 2. praktikperiode løbende skrive om sine erfaringer og iagttagelser han/hun møder om bord på skibet i forbindelse med følgende emner:

- Vedligehold og reparation
- Vagthold (brovagt, maskinvagt, radiovagt og dæksvagt)

Dette gøres i en logbog, som skal benyttes som aspirantens dokumentation og kontrol af at målbeskrivelserne for emnerne vedligehold og reparation samt vagthold som angivet i uddannelsesbogen bliver opfyldt. Endvidere skal logbogen benyttes som disposition og notater i forbindelse med udarbejdelse af relevante arbejdsopgaver.

**Logbogen skal bruges som dokumentation for målopfyldelse indenfor emnerne vedligehold og reparation samt vagthold samt til overlevering mellem uddannelsesofficererne således, at man kan planlægge uddannelsen om bord. Uddannelsesofficeren kvitterer for gennemgang og godkendelse af logbogen i forbindelse med hver afmønstring af enten uddannelsesofficer og/eller aspirant. Logbogen skal ligesom uddannelsesbogen forevises på skolen/centret efter afsluttet praktikperiode.**

Logbogen skal føres i henhold til følgende vejledning:

- Aspiranten skal under udmønstringen løbende skrive om sine erfaringer med og iagttagelser af den praksis han/hun møder under vagttjeneste og vedligehold. Disse skriverier bliver til en refleksionsbog (*et hæfte, mappe eller ringbind*), som man også kan kalde en logbog. Denne kan føres elektronisk, men udprintes og gemmes sammen med uddannelsesbogen.
- I logbogen skal aspiranten skrive,
  - hvad en skibsofficer foretager sig under vagt på broen, i maskinen eller på dækket, hvorfor det gøres, og hvilken betydning det har for sejladsen.

- present the Training Record Book to the shipping company for review;
- present the Training Record Book to the school/training centre after completion of the seagoing service;
- complete all tasks listed in the Training Record Book;
- have the tasks approved before signing off the ship.

## Training objectives

For the description of the purpose and objectives of the training required to become a ship's officer the same classification of training objectives has been used as far as possible.

The training objectives are to be seen as a guideline for the daily learning and as a help for the planning of the daily work of the apprentice.

As a supplement to the training objectives, the work tasks contain parts of the training objectives.

When the trainee has completed a task/subject satisfactorily and thus complies with the training objectives, the training officer/ship's management must sign for the task/subject by filling in the signature field of the relevant form with date/signature.

## Logbook

The trainee must, throughout his or her entire seagoing service, including both the initial and the final (second) practical training period, document his or her onboard experience and observations in relation to the following subjects:

- maintenance and repairs,
- watchkeeping (bridge watch, engine room watch, radio watch and deck watch).

This is to be done in a logbook that should serve to document and monitor that the objectives described for the subjects maintenance and repairs and watch keeping, as stated in the Training Record Book, are met. Furthermore, the logbook should serve as an outline and notes in connection with completion of relevant tasks.

**The logbook should be used as documentation that the objectives within the subjects of maintenance and repairs and watch keeping have been met, and to ensure proper passing on of information between training officers so that onboard training can be planned. The training officer signs for review and approval of the logbook whenever a trainee or the training officer signs off the ship. The logbook shall like the Training Record Book be presented to the school/training centre after completion of the seagoing service.**

The logbook must be kept in accordance with the following guidelines:

- Throughout his or her seagoing service, the trainee must write regularly about his experience and observations of the practices he or she is introduced to during watch keeping duty and maintenance. These entries should become a book of reflections, (*a note book, a folder or a loose-leaf book*) a logbook. The logbook can be kept electronically, but a printed version must be stored together with the Training Record Book.
- The trainee should write about the following in the logbook:
  - the tasks of ship's officers during bridge watch, when in the engine room or on deck, why they are performed, and what significance they have for sailing and navigation;

- hvad der foretages i forbindelse med vedligehold- og reparationsarbejder om bord, hvorfor, og hvilken betydning det har for skibets sikkerhed og drift.
- Logbogen bliver derved et redskab i aspirantens læreproces og får aspiranten til at tænke over det, der sker.
- Logbogens sider skal have overskrifter, der inkluderer skibsnavn, dato og det emne eller problem fra praktiske situationer, som aspiranten deltager i. Han/hun kan f.eks. skrive om:
    - søkortene ved en sejlads. Hvilke søkort der er, hvordan de er forskellige, hvordan man vælger søkort, hvilke oplysninger søkortet indeholder, hvilke oplysninger der er vigtige at kende i søkortet, hvilke problemer der er ved anvendelse af søkort, hvordan man arbejder bedst med søkort m.m.
    - arbejdet med malingstyper. Hvilke typer maling der benyttes, hvordan de benyttes samt sikkerheden i forbindelse med malerarbejdet.
  - Aspiranten skal altså med egne ord beskrive, hvordan de enkelte elementer af vagthold, vedligehold og reparation anvendes om bord på skibet – helst med udgangspunkt i virkelige situationer og opgaver. Logbogen skal udføres under vejledning fra skibets officerer, og kan indeholde både teoretiske og praktiske betragtninger, som måtte være nødvendige for at beskrive emnet.
  - Denne måde at lære og evaluere sin læring vil ligeledes motivere aspiranten for efterfølgende praktik og uddannelse samt udvikle vedkommende til selvstændigt at kunne tilegne sig viden og være aktiv i egen læreproces.
  - Aspiranten skal arbejde med kritisk refleksion, som betyder at han/hun skal tænke over forskellige arbejdsmønstre og holdninger, og vurdere forskellige måder at gøre tingene på i forskellige situationer. Aspiranten kan på den baggrund efterhånden danne sig et grundlag for egen forståelse og oprettelse af en god og fornuftig sikkerhedskultur samt evnen til at analysere og vurdere forholdsvist komplekse situationer i forbindelse med vagthold, vedligehold og reparation.

## Skriftlige opgaver

Under sin praktiktid i den **indledende praktikperiode** skal aspiranten som minimum udføre de opgaver der er tilknyttet denne praktikperiode.

### Proceduren ved opgaveaflevering er, at:

- Arbejdsopgaverne skal benyttes som dokumentation for gennemført uddannelse om bord. Hvis uddannelsesofficeren/skibsledelsen finder det mere formålstjenligt, kan en arbejdsopgave om nødvendigt erstattes af eller kombineres med en praktisk handleprøve i emnet.
- Uddannelsesofficeren eller en specielt udpeget officer fungerer som vejleder i forbindelse med arbejdsopgaverne,
- besvarelsen præsenteres for uddannelsesofficeren (eller til den udpegede officer), der evaluerer og kommenterer besvarelsen,
- hvis besvarelsen kan godkendes, påtegnes den af officeren med dato/sign.,
- uddannelsesofficeren registrerer godkendelsen i oversigten over arbejdsopgaver,
- i tilfælde af, at besvarelsen ikke kan godkendes, må aspiranten rette denne eller udfærdige en ny besvarelse efter anvisning fra uddannelsesofficeren.

- the tasks related to maintenance and repair work onboard, why they are performed and what significance they have for the safety and operation of the ship.

The logbook thus becomes an instrument in the trainee's learning process, prompting the trainee to reflect on what goes on around him.

- The pages of the logbook shall have headings including ship's name, date and the subjects or problems in practical situations the trainee meets. The trainee could, for example, write about:
  - the charts used in navigation. Which charts are used? How do they differ from one another? How is the correct chart selected? What information can be read from a chart? Are there any problems one should know about when using charts? What is the best way to work with charts? Etc.
  - work with different types of paint. What types of paint are used? How is the paint used, and what are the safety procedures when working with paint?
- So, the trainee should use his or her own words to describe how the individual elements of a watch, maintenance and repair task are employed onboard ship, preferably based on real situations and tasks. The logbook should be prepared under guidance of the ship's officers and could contain both theoretical and practical considerations necessary for a full description of the subject.
- In this way, learning and evaluating one's own learning process will also motivate the trainees for their subsequent practice and training, as well as develop their ability to acquire knowledge independently and be active in their own learning process.
- The trainee must use critical reflection, which means that he or she must reflect on different working patterns and attitudes and assess different ways of doing things in different situations. On this basis, eventually the trainee will be able to form his or her own basis for understanding and for establishing a good and sound safety culture, as well as the ability to analyse and assess comparatively complex situations in connection with watch keeping, maintenance and repairs.

## Written tasks

During the **preliminary practical training period**, the trainee must, as a minimum complete the work tasks attached to this seagoing service.

## Handing in tasks

- The tasks are to serve as documentation of completed training onboard. If the training officer/ship's management finds it more advisable, tasks could, where necessary, be replaced by or combined with a practical test in the subject.
- The training officer or an appointed officer serves as a counsellor in connection with the tasks.
- Tasks are presented to the training officer (or the appointed officer), who will evaluate and comment on these.
- If the tasks can be approved, the officer signs them off with date and signature.
- The training officer registers approval in the task list.
- Where a task cannot be approved, the trainee must amend it or prepare a new one following the training officer's instructions.

## **Formålet med arbejdsopgaver**

- Gennem udarbejdelsen af arbejdsopgaverne skal aspiranten kunne demonstrere planlægning og udførelse af almindelige sikkerhedsrutiner og arbejdsprocesser om bord.
- Det er ikke meningen, at aspiranten skal komme med vidtgående tekniske betragtninger og der anbefales derfor, at der aftales et sideantal inden udarbejdelse af hver arbejdsopgave.

## **Vejledning i udførelse af arbejdsopgaven**

Arbejdsopgaverne består af en teoretisk og praktisk del. Den teoretiske del består i planlægning og senere beskrivelse af det udførte arbejde eller sikkerhedsrutine. Uddannelsesofficeren kvitterer for den gennemførte og godkendte arbejdsopgave i oversigten over arbejdsopgaver.

## **Brovagts- og maskinrumstjeneste**

Brovagts- og maskinrumstjenesten bør tilrettelægges således, at aspiranten også får lejlighed til at gå vagt ved kanalpassager, sejlads i trafikerede farvande samt under manøvrer, og der skal lægges stor vægt på forståelse af nødvendigheden af at overholde god disciplin på broen og i maskinen, jævnfør STCW konventionens kapitel VIII.

### **Vagtholdsbeviset skal erhverves i de første 6 måneder af søpraktikken.**

Aspiranten skal indgå i brovagten – hvor det er relevant for oplæringen og uddannelsen - under opsyn af en kvalificeret officer i minimum 2 mdr. under de første 6 måneder af den samlede søpraktik for at erhverve et 'Vagtholdsbevis' iht. STCW konventionens reglement II/4.

Nederst på Vagtholdsbeviset attesterer skibsføreren ved sin underskrift, når aspiranten på tilfredsstillende måde har gennemført to måneders brovagtstjeneste under opsyn, hvorefter aspiranten er fuldt kvalificeret efter reglement II/4.

Aspiranten kan under oplæringen ikke erstatte udkiggen om bord.

### **The purpose of tasks**

- By completing the tasks, the trainee demonstrates the ability to plan and prepare normal safety routines and work processes onboard ship.
- The trainee is not required to include extensive technical considerations and it is therefore recommended that a fixed scope (number of pages) is agreed before starting on the task.

### **Guidelines for completion of tasks**

The tasks consist of a theoretical and a practical part. The theoretical part consists of planning and, later, describing the work or the safety routine performed. There are optional tasks in connection with both the initial and the final practical training periods. The training officer signs for the completed and approved task in the task list.

### **Bridge and engine room watch keeping duties**

Bridge and engine room watch keeping duties should be coordinated so that the trainee stands watch during channel/canal passage, during navigation in busy shipping lanes and while manoeuvring. Emphasis should be on understanding the necessity of complying with good discipline on the bridge and in the engine room, cf. Part VIII of the STCW Convention.

### **The watch keeping certificate during the first 6 months of seagoing service**

In order to acquire a watch keeping certificate in accordance with Regulation II/4 of the STCW Convention, the trainee must, where relevant for the training and his or her learning process, take part in bridge watch keeping duty under supervision of a qualified officer for at least two months during the first 6 month of seagoing service.

The master of the ship signs at the bottom of the Watchkeeping Certificate when the trainee has satisfactorily completed two months of bridge watchkeeping duty under supervision. Now the trainee is fully qualified according to Regulation II/4.

The trainee cannot replace the look out onboard ship during his training.

# **TRAINING RECORD BOOK - FOR SHIP'S OFFICER TRAINEES:**

## **STCW CODE - TABLE A-II/4**

Specification of minimum standard of competence for ratings forming part of a navigational watch

| Column 1                                                                | Column 2                                                                                                                                                                                                                                                                                                                                                                                          | Column 3                                                                                                                                      | Column 4                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| COMPETENCE                                                              | KNOWLEDGE, UNDERSTANDING AND PROFICIENCY                                                                                                                                                                                                                                                                                                                                                          | METHODS FOR DEMONSTRATING COMPETENCE                                                                                                          | CRITERIA FOR EVALUATING COMPETENCE                                                                                                                                                                                                                                                                                                  |
| Steer the ship and comply with helm orders also in the English language | Use of magnetic and gyro compasses.<br><br>Helm orders.<br><br>Change-over from automatic pilot to hand steering and vice-versa.                                                                                                                                                                                                                                                                  | Assessment of evidence obtained from:<br><br>.1 practical test, or<br>.2 approved in-service experience or approved training ship experience. | A steady course is steered within acceptable limits having regard to the area of navigation and prevailing sea state. Alterations of course are smooth and controlled.<br>Communications are clear and concise at all times and orders are acknowledged in a seamanlike manner.                                                     |
| Keep a proper look-out by sight and hearing                             | Responsibilities of a look-out, including reporting the approximate bearing of a sound signal, light or other object in degrees or points.                                                                                                                                                                                                                                                        | Assessment of evidence obtained from:<br>.1 practical test, or<br>.2 approved in-service experience or approved training ship experience.     | Sound signals, lights and other objects are promptly detected and their appropriate bearing in degrees or points is reported to the officer of the watch.                                                                                                                                                                           |
| Contribute to monitoring and controlling a safe watch                   | Shipboard terms and definitions.<br>Use of appropriate internal communication and alarm systems.<br>Ability to understand orders and to communicate with the officer of the watch in matters relevant to watchkeeping duties.<br>Procedures for the relief, maintenance and hand-over of a watch.<br>Information required to maintain a safe watch.<br>Basic environmental protection procedures. | Assessment of evidence obtained from approved in-service experience or approved training ship experience.                                     | Communications are clear and concise and advice/clarification is sought from the officer on watch where watch information or instructions are not clearly understood.<br><br>Maintenance, hand-over and relief of the watch is in conformity with accepted practices and procedures.                                                |
| Operate emergency equipment and apply emergency procedures              | Knowledge of emergency duties and alarm signals.<br>Knowledge of pyrotechnic distress signals, satellite EPIRBs and SARTs.<br>Avoidance of false distress alerts and action to be taken in event of accidental activation.                                                                                                                                                                        | Assessment of evidence obtained from demonstration and approved in-service experience or training ship experience.                            | Initial action on becoming aware of an emergency or abnormal situation is in conformity with established practices and procedures.<br>Communications are clear and concise at all times and orders are acknowledged in a seamanlike manner.<br>The integrity of emergency and distress alerting systems is maintained at all times. |

STCW CODE - 24.07.1995

# TRAINING RECORD BOOK - FOR SHIP'S OFFICER TRAINEES:

## STCW CODE - TABLE A-II/4

Specification of minimum standard of competence for ratings forming part of a navigational watch

| Column 1                                                                | Column 2                                                                                                                                                                                                                                                                                                                                                                                          | Column 3                                                                                                                                      | Column 4                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| COMPETENCE                                                              | KNOWLEDGE, UNDERSTANDING AND PROFICIENCY                                                                                                                                                                                                                                                                                                                                                          | METHODS FOR DEMONSTRATING COMPETENCE                                                                                                          | CRITERIA FOR EVALUATING COMPETENCE                                                                                                                                                                                                                                                                                                  |
| Steer the ship and comply with helm orders also in the English language | Use of magnetic and gyro compasses.<br><br>Helm orders.<br><br>Change-over from automatic pilot to hand steering and vice-versa.                                                                                                                                                                                                                                                                  | Assessment of evidence obtained from:<br><br>.1 practical test, or<br>.2 approved in-service experience or approved training ship experience. | A steady course is steered within acceptable limits having regard to the area of navigation and prevailing sea state. Alterations of course are smooth and controlled.<br>Communications are clear and concise at all times and orders are acknowledged in a seamanlike manner.                                                     |
| Keep a proper look-out by sight and hearing                             | Responsibilities of a look-out, including reporting the approximate bearing of a sound signal, light or other object in degrees or points.                                                                                                                                                                                                                                                        | Assessment of evidence obtained from:<br>.1 practical test, or<br>.2 approved in-service experience or approved training ship experience.     | Sound signals, lights and other objects are promptly detected and their appropriate bearing in degrees or points is reported to the officer of the watch.                                                                                                                                                                           |
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STCW CODE - 24.07.1995

### **Brovagtstjeneste under praktikperioden.**

For at opfylde STCW Reglement II/1 skal aspiranten have gennemgået minimum 6 mdr. brovagtstjeneste – hvor det er relevant for oplæringen og uddannelsen - under opsyn af en kvalificeret officer.

### **Maskinrumstjeneste under praktikperioderne.**

For at opfylde STCW Reglement III/1 skal Aspiranten have gennemgået minimum 6 mdr. maskinrumstjeneste – hvor det er relevant for oplæringen og uddannelsen under opsyn af en kvalificeret officer.

### **Vedligeholdelsesarbejder og sømandskundskaber.**

- Aspirantens deltagelse i de almindeligt forekommende vedligeholdelsesarbejder om bord bør begrænses til det uddannelsesmæssigt nødvendige, og ved tildeling af arbejdsopgaver om bord skal der være et klart sigte mod den fremtidige officersgerning.
- Uddannelsen i de almindelige sømandskundskaber skal være en naturlig fortsættelse af den indlæring, der er sket på skolerne, og aspiranten skal deltage i arbejder som fortøjning, oprigning og eftersyn af lossegrejer, lastbehandling, søklaring, vedligehold og reparation i maskinen såvel som på dækket, idet der samtidig må lægges stor vægt på den sikkerhedsmæssige oplæring. Det er specielt vigtigt, at man prioriterer den praktiske indlæring meget højt herunder fokuserer på emner og discipliner, der kun kan indøves om bord.

### **Skibsspecifikke afsnit**

Aspiranten skal huske skibsspecifikke arbejdsopgaver i emner indenfor f.eks. olie-, gas- og kemikalietankere.

Der er ikke krav om, at uddannelsen skal foregå på bestemte skibstyper, men med sigte på en effektiv udnyttelse af uddannelsestiden skal skibsspecifikke emner på skibe, der faktisk indgår i praktiktiden, betragtes som obligatoriske. Ved tilrettelægning af sådan uddannelse bør skibsledelsen være opmærksom på, at aspiranten muligvis kun får en enkelt udmønstring i den pågældende specielle skibstype.

### **Godkendelse af rederiet**

Etablering af en uddannelsesordning for aspiranter i et rederi forudsætter, at der forinden foreligger en godkendelse af dette rederi fra Søfartsstyrelsen.

Vejledning om godkendelse af rederier:

1. For at opnå godkendelse, skal skriftlig ansøgning indsendes til Søfartsstyrelsen

### **Bridge watchkeeping duty during the seagoing service periods**

In order to comply with Regulation II/1 of the STCW Convention, the trainee must have completed at least six months of bridge watchkeeping duty, wherever relevant for the training and his or her learning process, under supervision of a qualified officer.

### **Engine room watchkeeping duty during the seagoing service periods**

In order to comply with Regulation III/1 of the STCW Convention, the trainee must have completed at least six months of engine room watchkeeping duty, where relevant for the training and his or her learning process, under supervision of a qualified officer.

### **Maintenance work and seaman skills**

- The trainee's participation in routine maintenance work onboard ship should be limited to what is necessary for his or her training. When delegating work tasks onboard ship, there should be a clear aim toward the trainee's future duties as a ship's officer.
- Training in ordinary seaman skills must be a natural continuation of the theoretical teaching the trainee received during theoretical training at the school, and the trainee must take part in work such as mooring, rigging and inspection of cargo gear, handling of cargo, preparations for departure, as well as maintenance and repairs in the engine room and on deck. At the same time there should be great emphasis on training in safety aspects. It is especially important that learning by doing is given high priority, including focusing on subjects and disciplines which can only be practiced onboard.

### **Ship-specific section**

The trainee must remember ship-specific tasks within subjects relating to e.g. oil, gas and chemical tankers.

It is not required that training take place onboard certain types of ship. However, in order to ensure efficient use of the training period, subjects specific to the ships actually involved in the seagoing practice should be considered mandatory. When organising such training, the ship's management should be aware that the trainee might get only one service period onboard the specific type of ship.

### **Approval of the company**

Establishing a training scheme for trainees in a company requires prior approval of the company by the Danish Maritime Authority.

Guidelines for approval of companies:

1. To obtain approval, a written application must be submitted to Danish Maritime Authority.

2. Det er en forudsætning for godkendelse, at rederiet påviser, at det kan gennemføre en alsidig uddannelse på handelsskibe. Den samlede fartstid skal være på 12 måneder i skibe med en bruttotonnage på 500 eller derover, heraf 6 måneder udenfor kystfart. Hovedparten af fartstiden skal foregå i lastførende handelsskibe. Der er ikke krav om fartstid på bestemte typer af sådanne skibe, men der bør lægges vægt på størst mulig alsidighed.
3. Rederiet skal etablere en organisation, såvel på land som om bord, der sikrer og kontrollerer, at uddannelsen afholdes i overensstemmelse med programmet i denne uddannelsesbog. I denne organisation skal være udpeget en person i land med særligt ansvar for uddannelsens koordinering og gennemførelse.
4. Rederiet skal udarbejde skriftlig instruks til skibet om de retningslinier, hvorefter uddannelsen om bord skal foregå, og i organisationen om bord skal være udpeget kvalificeret officer, uddannelsesofficeren, med direkte ansvar for aspirantens uddannelse om bord.
5. Rederiet skal endvidere udarbejde særlig skriftlig vejledning til aspiranten om rederispecifikke forhold af betydning for dennes gennemførelse af uddannelsen i rederiet.
6. Uddannelsesofficeren skal kunne kommunikere med aspiranten i et sprog, begge forstår, og uddannelsesofficeren skal sikre, at der sker en kvalificeret bedømmelse af, at aspiranten når de uddannelsesmål, som fremgår af denne uddannelsesbog.
7. Ansøgning om godkendelse skal mindst indeholde:
  - En beskrivelse af den organisation i land og om bord, som man vil etablere.
  - En fortegnelse over de skibstyper, man vil anvende til uddannelsen.
  - En kopi af den uddannelsesaftale, der indgås mellem rederiet og aspiranten.
8. Rederier, der er godkendt pr. 1. august 2005 i det hidtidige uddannelsessystem er fortsat godkendt, hvis de har den samme principielle opbygning af deres organisation, som da godkendelsen blev givet.
9. Rederiet skal underrette Søfartsstyrelsen om væsentlige ændringer i det grundlag, på hvilken en godkendelse er givet.
10. Et rederi, som har opnået godkendelse, men som på grund af særlige forhold finder vanskeligheder ved at følge ovenstående retningslinier, skal rette henvendelse til Søfartsstyrelsen herom. Søfartsstyrelsen vil herefter nærmere drøfte med pågældende rederi, om særlige forhold tilsiger ændrede retningslinier for opretholdelse af godkendelse for dette rederi.

2. A precondition for approval is that the company provides documentation that it is able to carry out an all-round training programmes onboard merchant ships. The overall duration of seagoing service must be 12 months onboard ships with a gross tonnage of 500 or more, including six months without near-coastal voyages. The majority of the service must be onboard merchant ships that carry cargo. There are no requirements on the duration of seagoing service on specific types of ship; however emphasis should be on as much variation as possible.
3. The shipping company must establish an organisation, on shore as well as onboard, which ensures and supervises that the training programme is in compliance with the programme in this Training Record Book. This organisation should include an appointed person on shore with special responsibility for coordination and execution of the training programme.
4. The shipping company must prepare a written instruction to the ship about the guidelines which onboard training should follow, and the onboard organisation should include an appointed, qualified officer (the training officer), who will have direct responsibility for training the trainees onboard ship.
5. Furthermore, the shipping company must prepare special, written guidelines for the trainee concerning any company-specific conditions of significance for the trainee's completion of the training programme with the shipping company.
6. The training officer must be able to communicate with the trainee in a language that they both understand, and the training officer must ensure that the trainee receives a qualified assessment of whether he or she has met the training objectives in this Training Record Book.
7. The application for approval should as a minimum contain:
  - a description of the organisation on shore and onboard, which the company plans to establish,
  - a list of the types of ship the company will employ in the training,
  - a copy of the training agreement to be entered into between the shipping company and the trainee.
8. Companies which have been approved on 1 August 2005 under the training system applying at that time will still be approved, if they have the same principal structure in their organisation as when they received their original approval.
9. The company must notify the Danish Maritime Authority about any significant changes in the basis on which their approval was given.
10. A shipping company which has obtained approval, but due to special conditions finds it difficult to comply with the guidelines above, must contact the Danish Maritime Authority. The Danish Maritime Authority will then discuss in more detail with the company in question whether any special conditions require changes to guidelines in order to maintain the approval of the company.

11. Søfartsstyrelsen vil, forinden sådanne ændrede retningslinier indføres, indhente udtalelse fra de berørte organisationer for redere og søfarende. Tilsvarende fremgangsmåde som nævnt under pkt. 9 og 10 vil, hvis Søfartsstyrelsen finder tilstrækkeligt grundlag herfor, blive fulgt i tilfælde, hvor Søfartsstyrelsen modtager indberetning fra søfarende om manglende overholdelse af ovenstående retningslinier eller klager over uddannelsens gennemførelse.
12. Søfartsstyrelsen vil løbende meddele på [www.fuldskrue.info](http://www.fuldskrue.info), hvilke rederier der er godkendt ifølge ovenstående.

Før aspiranten fremlægger uddannelsesbogen ved optagelse på skibsofficers-uddannelsens teoridele, skal rederiet sikre sig, at praktikperioderne er blevet gennemført efter disse retningslinier.

### **Uddannelsesofficeren**

- **Skibsledelsen skal udpege en uddannelsesofficer** blandt skibets officerer. Uddannelsesofficeren skal være aspirantens kontaktperson om bord, og vedkommende skal sikre, at retningslinierne for uddannelsesbogen bliver overholdt af alle parter. Uddannelsesofficeren skal i samråd med skibsledelsen tilrettelægge uddannelsen om bord, så der specielt bliver taget hensyn til aspiranternes forskellige baggrund, sejltilid, alder m.v.
- Aspiranten skal jævnligt forevise og drøfte uddannelsesbogen med uddannelsesofficeren. Bogen skal endvidere forevises skibsledelsen til eftersyn/kontrol mindst en gang om måneden samt ved på- og afmønstring.

### **Bemærkninger og overlevering**

- Det er vigtigt, at uddannelsesofficeren anfører bemærkninger i uddannelsesbogen om den af aspiranten opnåede indlæring og rutine i udførelse af de praktiske arbejdsopgaver om bord. Dette kan gøres på side 4.

Den korte og koncentrerede praktikperiode gør det nødvendigt med en grundig overlevering mellem uddannelsesofficererne, således at der bevares en kontinuitet i uddannelsesforløbet, så det sikres, at oplæring i eventuelle svage punkter fortsættes i praktikperioden.

Uddannelsesbogen tjener derved samtidig som en skriftlig overlevering ved udskiftning af skibsledelse/uddannelsesofficer om bord eller ved evt. skift til andre skibe i praktikperioden.

- På det enkelte skib kan det anbefales, at uddannelsesofficeren udarbejder en særlig checkliste med de punkter, der er specielle for det pågældende skib. En sådan liste vil være en stor hjælp ved afløsning af uddannelsesofficeren, idet afløseren herved lettere kan sættes ind i den enkelte aspirants uddannelsesmæssige status, og hvor der efterfølgende skal sættes ind.

11. Before such amended guidelines are implemented, the Danish Maritime Authority will request statements from the seafarers and shipping organisations involved. If the Danish Maritime Authority finds reasonable basis for it, a similar approach to that mentioned in 9 and 10 will be followed in situations when the Danish Maritime Authority receives a report from seafarers about non-compliance with the guidelines above, or complaints about execution of the training programme.
12. On an ongoing basis (and only in Danish), the Danish Maritime Authority will notify which shipping companies have been approved according to the above on [www.fuldskrue.info](http://www.fuldskrue.info).

Before the trainee presents his or her Training Record Book in connection with his or her admission to the theoretical modules in the training programme for ship's officer, the shipping company must ensure that the practical training periods have been completed according to these guidelines.

### **The training officer**

- **The ship's management must appoint a training officer** from among the ship's officers. The training officer must be the trainee's contact person onboard ship, and he or she is responsible for ensuring that all parties comply with the guidelines for the Training Record Book. In consultation with the ship's management, the training officer must organise onboard training so that special account is taken of the trainees' individual background, time at sea, age etc.
- The trainee must present and discuss the Training Record Book on a regular basis with his or her training officer. He or she must also present the book for review/check to the ship's management at least once a month and in connection with sign-on/sign-off.

### **Comments and hand over**

- It is important that the training officer makes comments in the Training Record Book regarding the trainee's learning process and routine in execution of the practical tasks onboard. This can be done on page 4.

The short and intensive practical training period necessitates a thorough transfer of information between training officers, so that it is possible to maintain continuity of the training and ensure that the trainee is provided with continuous training in any weak areas throughout the training period.

At the same time, the Training Record Book also serves as written briefing in connection with a change of the ship's management/training officer onboard, or if the trainee moves to another ship during the training period.

- On some ships, it may be advisable that the training officer prepares a check list of items special to the ship in question. Such a list will be of great help if someone has to take over from the training officer, in that the substitute will then have less difficulties understanding the training status of the individual trainee and where to direct efforts.

## **Uddannelsesstruktur for skibsofficersuddannelsen**

### **Fællesuddannelse af aspiranter til skibsofficer.**

Professionsbachelorordelen er en fællesuddannelse. Uddannelsen opbygges som en vekselvirkning mellem teoretiske studier og praktiktid til søs i handelsskibe. Teoridelen er opdelt i tre perioder, og praktikdelen er opdelt i to perioder svarende til 12 måneders effektiv fartstid. Den samlede uddannelsesstruktur fremgår af diagrammet i bilag 3. Det er vigtigt at gøre sig klart, at aspiranternes teoretiske forudsætninger er begrænsede i den indledende praktikperiode, og at de fleste emner derfor må videreudvikles i den afsluttende praktikperiode, hvor aspiranten naturligvis møder med bedre teoretiske forudsætninger. Dette bør der tages hensyn til ved vurdering af det niveau, hvori de forskellige uddannelsesmål opfyldes efter første henholdsvis efter anden praktikperiode.

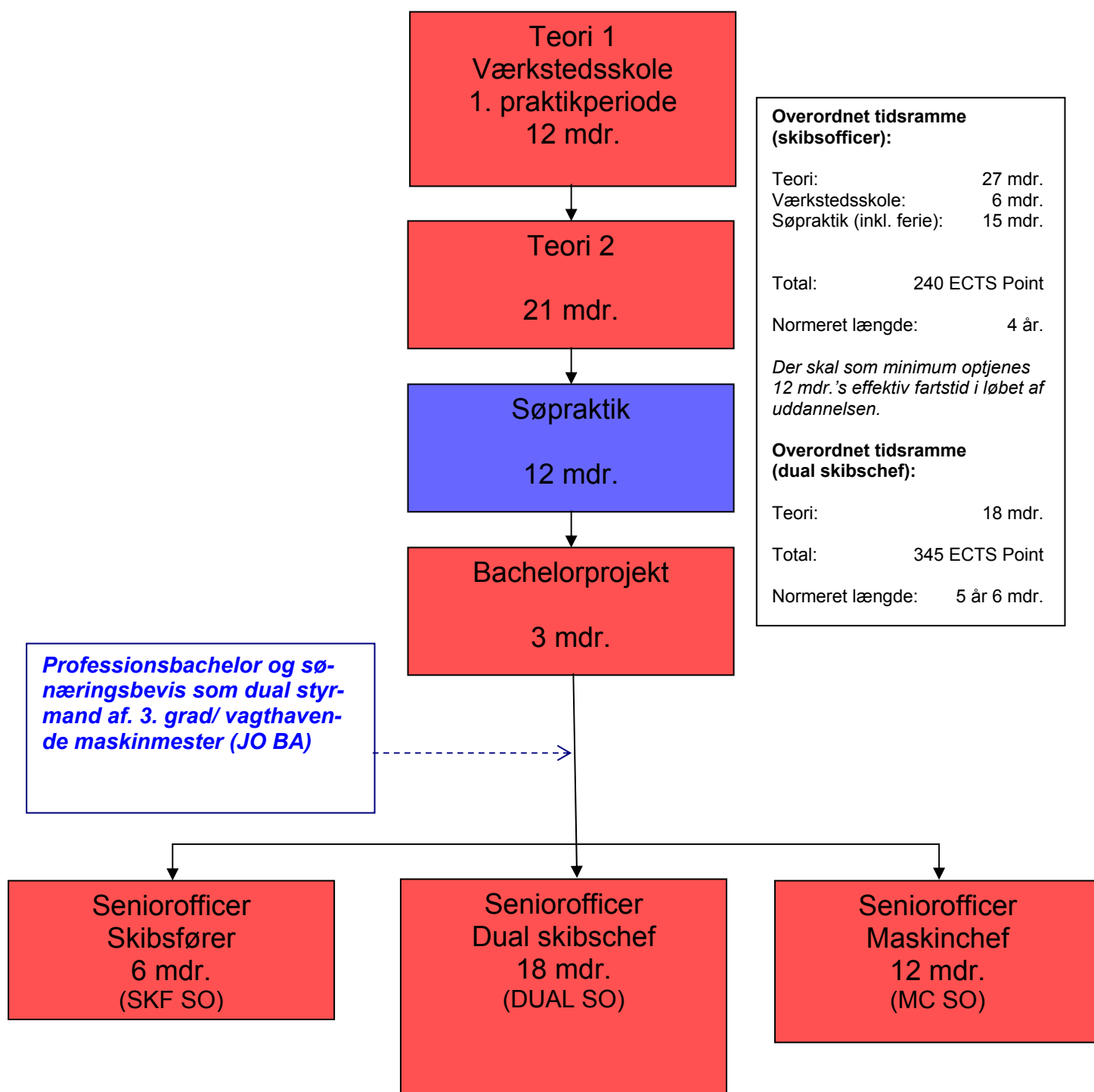
## **Training programme structure**

### **Common training of ship's officer trainees**

The bachelor part of the training programme for ship's officer is a common training programme. The training alternates between theoretical studies and seagoing service onboard merchant ships. The theoretical part falls into three periods and the practical part falls into two periods, corresponding to 12 months of actual seagoing service. The overall structure of the training programme is shown in the diagram. It is important to be aware that the trainee's theoretical skills will be limited during the initial practical training period, and that most of the subjects therefore will have to be elaborated during the final practical training period, where the trainee will have acquired an improved theoretical knowledge. This should be taken into consideration when assessing the level at which the different training objectives are to be met after the first and the second practical training period respectively.

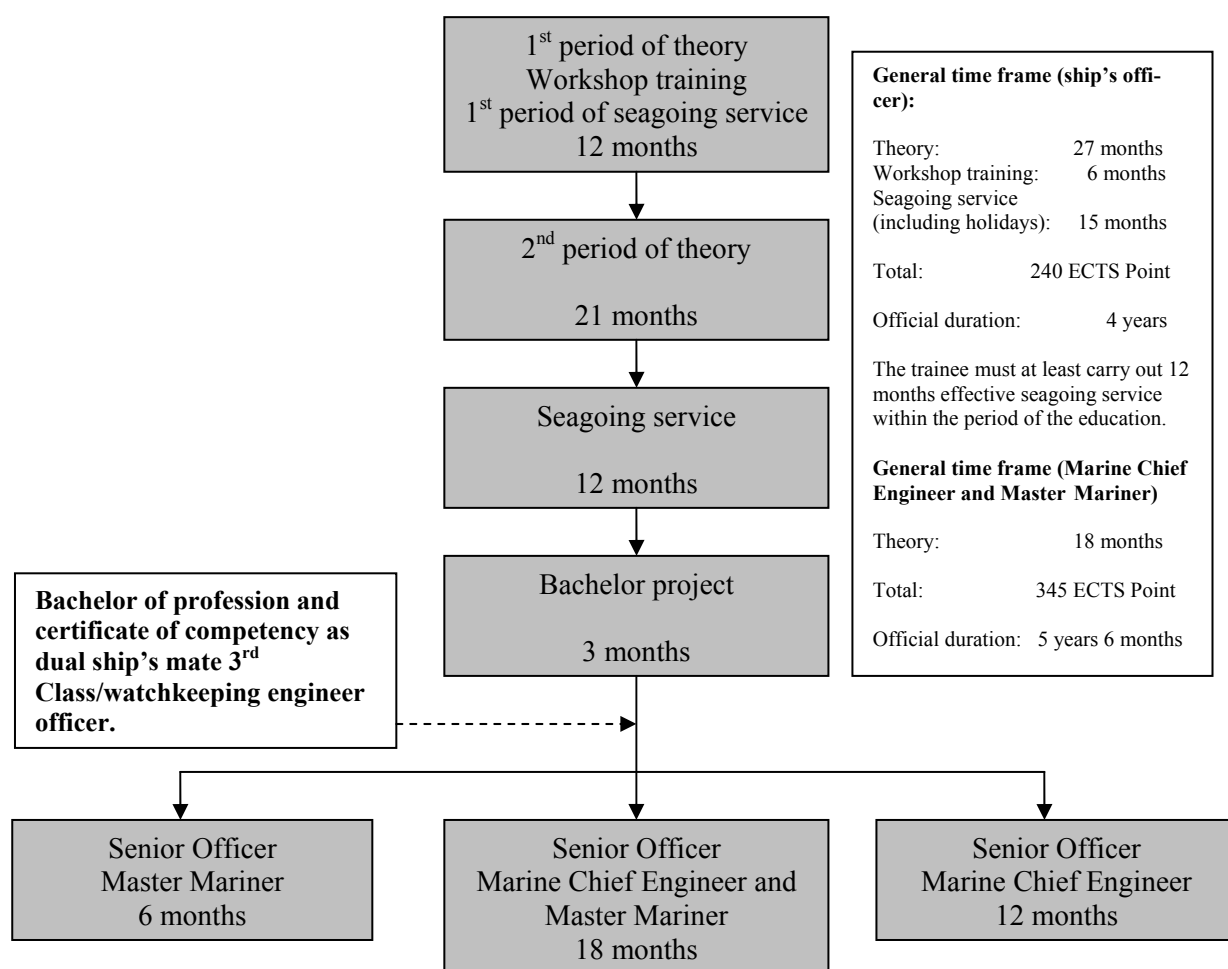
## Seniorofficersuddannelsen.

Uddannelsen afsluttes med en teoretisk del, hvor aspiranten kan vælge at specialisere sig inden for maskin- eller navigatørlinien eller kombinere de to linier til dual seniorofficer. Undervisningen er projektorienteret og beskæftiger sig mere med ledelsesmæssige og administrative fag, ligesom der også her vælges nogle tilvalgsfag efter egen interesse. Rammen for uddannelsesforløbet for hele skibsofficersuddannelsen er som følger:



## The training programme for Senior Officers

The training programme is finalised with a theoretical part where the trainee chooses to specialise in either the engine or the navigator line or to combine both lines and become a dual senior officer. The teaching is project-oriented and deals with management aspects and administration subjects, and optional subjects may be elected according to the trainee's interest. The framework for the entire training programme for ship's officer is as follows:



## **Evaluering af uddannelsesbogen**

Søfartsstyrelsen vil i samarbejde med skolerne, erhvervet og aspiranterne løbende tilstræbe at udvikle uddannelsesbogen for at forbedre dens kvalitet. I denne forbindelse er det vigtigt, at brugerne af den giver informationer om de erfaringer, man har haft med brug af bogen og med uddannelsen om bord. Alle forslag til forbedringer, kritik, bemærkninger o.s.v. er derfor meget velkomne, og Søfartsstyrelsen er især interesseret i at få besvaret følgende spørgsmål:

- uddannelsesbogens og opgavernes omfang i forhold til længden af praktikperioderne (1. og 2.)
- uddannelsesbogens opbygning og indhold
- uddannelsesbogens brug af målbeskrivelser og taksonomi
- værdien/indholdet af arbejdsopgaverne
- den praktiske uddannelse til søs
- aspiranternes teoretiske og praktiske forudsætninger før praktikken til søs

**Skibsledelsen og/eller uddannelsesofficeren** anmodes om at evaluere uddannelsesbogen.

**Rederiet**, som jo skal sikre sig, at uddannelsen finder sted efter de angivne retningslinier, opfordres til, at man - gennem sin uddannelsesafdeling - løbende evaluerer brugen af uddannelsesbogen, den praktiske uddannelse til søs og officerernes motivation for træning og uddannelse af aspiranterne.

Forbedringsforslag, evalueringer mv. kan afleveres på skolen eller fremsendes direkte til Søfartsstyrelsen, Center for Søfarende og Fiskere.

## **Evaluation of The Training Record Book**

The Danish Maritime Authority in collaboration with the schools, the industry and the trainees will endeavour on a continuous basis to develop the Training Record Book in order to improve its quality. In this connection it is important that the users of the book provide information about their experience with using the book and with the onboard training programme. All suggestions for improvements, critique, comments etc. are therefore very welcome, and the Danish Maritime Authority is especially interested in answers to the following issues:

- the scope of tasks and the Training Record Book in relation to the duration of the practical training periods (first and second)
- the structure and content of the Training Record Book
- the use of training objectives and taxonomy (classification) in the Training Record Book
- the value/content of assigned tasks
- the practical training at sea
- the theoretical and practical knowledge of the trainees before seagoing practice.

**The ship's management and/or the training officer** are requested to evaluate the Training Record Book.

**The shipping company** in charge of executing the training programme according to the guidelines is encouraged to evaluate regularly how the Training Record Book is used, the practical training at sea and the officers' motivation for training and educating the trainees via the company's training department.

Suggestions for improvements, evaluations etc. may be submitted to the school or directly to the Danish Maritime Authority, Centre for Seafarers and Fishermen.

## Familiarization - Particulars of the Ship

|                         |          |                                           |    |
|-------------------------|----------|-------------------------------------------|----|
| <b>M.V.</b>             |          |                                           |    |
| <b>Port of Registry</b> |          |                                           |    |
| <b>Type of Ship</b>     |          |                                           |    |
| <b>Call Sign</b>        |          | <b>IMO Number</b>                         |    |
| <b>Period from:</b>     |          | <b>Period to:</b>                         |    |
|                         |          |                                           |    |
| <b>Dimensions</b>       |          | <b>Lifesaving equipment</b>               |    |
| Lenght O.A.             | m        | Lifeboats (number)                        |    |
| Breadth                 | m        | Life-rafts (number)                       |    |
| Depth                   | m        | MOB-boat (type)                           |    |
| Summer Draft            | m        | Lifeboat dimensions                       |    |
| Summer Freeboard        | m        | Capacity per boat                         |    |
| Net Tonnage             |          | Capacity per life-raft                    |    |
| Gross Tonnage           |          | Davits (type)                             |    |
| Deadweight              | t        | Lifebuoys (number)                        |    |
| Light Displacement      | t        | Life jackets (number)                     |    |
| Fresh Water Allowance   | t        | <b>Firefighting equipment</b>             |    |
| Immersion at Load Draft | t/c<br>m | Fire Extinguishers (Number and capacity): |    |
| Cargo Capacity          | t        | Dry powder                                | kg |
| Ballast Capacity        | t        | CO <sub>2</sub>                           | kg |
| Fresh Water Capacity    | t        | Soda/Acid                                 | kg |
| <b>Engine Room</b>      |          | Foam                                      | l  |
| Main Engine(s) (type)   |          | Fire hoses (number and size)              | mm |
| Main Engine output      | kW       | Breathing app. (number)                   |    |
| at revs per min.        |          | Fire mans outfit (number)                 |    |
| Bunker Capacity         | t        | Fixed Fire Fighting system:               |    |
| Daily Consumption       | t        | Engine (type)                             |    |
| Service Speed           | knt<br>s | Deck (type)                               |    |
| Aux. Engine(s) (type)   |          | <b>Cargo handling gear</b>                |    |
| Boilers (type)          |          | Derricks/Cranes (number)                  |    |
| Steering Gear (type)    |          | Type and SWL                              | t  |
| <b>Bridge Equipment</b> |          | Winches (type)                            |    |
| Radar(s) (type)         |          | Other cargo equipment                     |    |
| ARPA (type)             |          | Cargo Pumps (number/Type)                 |    |
| Log (type)              |          | Cargo Tanks (number)                      |    |
| Gyro (type)             |          | Ballast Tanks (number)                    |    |
| Autopilot (type)        |          | <b>Radio Equipment</b>                    |    |
| Echo Sounder (type)     |          | GMDSS equipment (type)                    |    |
| ISC (type)              |          |                                           |    |

Udfyldes af aspiranten (to be completed by the Trainee).

## Familiarization - Particulars of the Ship

|                         |          |                                           |    |
|-------------------------|----------|-------------------------------------------|----|
| <b>M.V.</b>             |          |                                           |    |
| <b>Port of Registry</b> |          |                                           |    |
| <b>Type of Ship</b>     |          |                                           |    |
| <b>Call Sign</b>        |          | <b>IMO Number</b>                         |    |
| <b>Period from:</b>     |          | <b>Period to:</b>                         |    |
|                         |          |                                           |    |
| <b>Dimensions</b>       |          | <b>Lifesaving equipment</b>               |    |
| Lenght O.A.             | m        | Lifeboats (number)                        |    |
| Breadth                 | m        | Life-rafts (number)                       |    |
| Depth                   | m        | MOB-boat (type)                           |    |
| Summer Draft            | m        | Lifeboat dimensions                       |    |
| Summer Freeboard        | m        | Capacity per boat                         |    |
| Net Tonnage             |          | Capacity per life-raft                    |    |
| Gross Tonnage           |          | Davits (type)                             |    |
| Deadweight              | t        | Lifebuoys (number)                        |    |
| Light Displacement      | t        | Life jackets (number)                     |    |
| Fresh Water Allowance   | t        | <b>Firefighting equipment</b>             |    |
| Immersion at Load Draft | t/c<br>m | Fire Extinguishers (Number and capacity): |    |
| Cargo Capacity          | t        | Dry powder                                | kg |
| Ballast Capacity        | t        | CO <sub>2</sub>                           | kg |
| Fresh Water Capacity    | t        | Soda/Acid                                 | kg |
| <b>Engine Room</b>      |          | Foam                                      | l  |
| Main Engine(s) (type)   |          | Fire hoses (number and size)              | mm |
| Main Engine output      | kW       | Breathing app. (number)                   |    |
| at revs per min.        |          | Fire mans outfit (number)                 |    |
| Bunker Capacity         | t        | Fixed Fire Fighting system:               |    |
| Daily Consumption       | t        | Engine (type)                             |    |
| Service Speed           | knt<br>s | Deck (type)                               |    |
| Aux. Engine(s) (type)   |          | <b>Cargo handling gear</b>                |    |
| Boilers (type)          |          | Derricks/Cranes (number)                  |    |
| Steering Gear (type)    |          | Type and SWL                              | t  |
| <b>Bridge Equipment</b> |          | Winches (type)                            |    |
| Radar(s) (type)         |          | Other cargo equipment                     |    |
| ARPA (type)             |          | Cargo Pumps (number/Type)                 |    |
| Log (type)              |          | Cargo Tanks (number)                      |    |
| Gyro (type)             |          | Ballast Tanks (number)                    |    |
| Autopilot (type)        |          | <b>Radio Equipment</b>                    |    |
| Echo Sounder (type)     |          | GMDSS equipment (type)                    |    |
| ISC (type)              |          |                                           |    |

Udfyldes af aspiranten (to be completed by the Trainee).

## Familiarization - Particulars of the Ship

|                         |          |                                           |    |
|-------------------------|----------|-------------------------------------------|----|
| <b>M.V.</b>             |          |                                           |    |
| <b>Port of Registry</b> |          |                                           |    |
| <b>Type of Ship</b>     |          |                                           |    |
| <b>Call Sign</b>        |          | <b>IMO Number</b>                         |    |
| <b>Period from:</b>     |          | <b>Period to:</b>                         |    |
|                         |          |                                           |    |
| <b>Dimensions</b>       |          | <b>Lifesaving equipment</b>               |    |
| Lenght O.A.             | m        | Lifeboats (number)                        |    |
| Breadth                 | m        | Life-rafts (number)                       |    |
| Depth                   | m        | MOB-boat (type)                           |    |
| Summer Draft            | m        | Lifeboat dimensions                       |    |
| Summer Freeboard        | m        | Capacity per boat                         |    |
| Net Tonnage             |          | Capacity per life-raft                    |    |
| Gross Tonnage           |          | Davits (type)                             |    |
| Deadweight              | t        | Lifebuoys (number)                        |    |
| Light Displacement      | t        | Life jackets (number)                     |    |
| Fresh Water Allowance   | t        | <b>Firefighting equipment</b>             |    |
| Immersion at Load Draft | t/c<br>m | Fire Extinguishers (Number and capacity): |    |
| Cargo Capacity          | t        | Dry powder                                | kg |
| Ballast Capacity        | t        | CO <sub>2</sub>                           | kg |
| Fresh Water Capacity    | t        | Soda/Acid                                 | kg |
| <b>Engine Room</b>      |          | Foam                                      | l  |
| Main Engine(s) (type)   |          | Fire hoses (number and size)              | mm |
| Main Engine output      | kW       | Breathing app. (number)                   |    |
| at revs per min.        |          | Fire mans outfit (number)                 |    |
| Bunker Capacity         | t        | Fixed Fire Fighting system:               |    |
| Daily Consumption       | t        | Engine (type)                             |    |
| Service Speed           | knt<br>s | Deck (type)                               |    |
| Aux. Engine(s) (type)   |          | <b>Cargo handling gear</b>                |    |
| Boilers (type)          |          | Derricks/Cranes (number)                  |    |
| Steering Gear (type)    |          | Type and SWL                              | t  |
| <b>Bridge Equipment</b> |          | Winches (type)                            |    |
| Radar(s) (type)         |          | Other cargo equipment                     |    |
| ARPA (type)             |          | Cargo Pumps (number/Type)                 |    |
| Log (type)              |          | Cargo Tanks (number)                      |    |
| Gyro (type)             |          | Ballast Tanks (number)                    |    |
| Autopilot (type)        |          | <b>Radio Equipment</b>                    |    |
| Echo Sounder (type)     |          | GMDSS equipment (type)                    |    |
| ISC (type)              |          |                                           |    |

Udfyldes af aspiranten (to be completed by the Trainee).

## Familiarization - Particulars of the Ship

|                         |          |                                           |    |
|-------------------------|----------|-------------------------------------------|----|
| <b>M.V.</b>             |          |                                           |    |
| <b>Port of Registry</b> |          |                                           |    |
| <b>Type of Ship</b>     |          |                                           |    |
| <b>Call Sign</b>        |          | <b>IMO Number</b>                         |    |
| <b>Period from:</b>     |          | <b>Period to:</b>                         |    |
|                         |          |                                           |    |
| <b>Dimensions</b>       |          | <b>Lifesaving equipment</b>               |    |
| Lenght O.A.             | m        | Lifeboats (number)                        |    |
| Breadth                 | m        | Life-rafts (number)                       |    |
| Depth                   | m        | MOB-boat (type)                           |    |
| Summer Draft            | m        | Lifeboat dimensions                       |    |
| Summer Freeboard        | m        | Capacity per boat                         |    |
| Net Tonnage             |          | Capacity per life-raft                    |    |
| Gross Tonnage           |          | Davits (type)                             |    |
| Deadweight              | t        | Lifebuoys (number)                        |    |
| Light Displacement      | t        | Life jackets (number)                     |    |
| Fresh Water Allowance   | t        | <b>Firefighting equipment</b>             |    |
| Immersion at Load Draft | t/c<br>m | Fire Extinguishers (Number and capacity): |    |
| Cargo Capacity          | t        | Dry powder                                | kg |
| Ballast Capacity        | t        | CO <sub>2</sub>                           | kg |
| Fresh Water Capacity    | t        | Soda/Acid                                 | kg |
| <b>Engine Room</b>      |          | Foam                                      | l  |
| Main Engine(s) (type)   |          | Fire hoses (number and size)              | mm |
| Main Engine output      | kW       | Breathing app. (number)                   |    |
| at revs per min.        |          | Fire mans outfit (number)                 |    |
| Bunker Capacity         | t        | Fixed Fire Fighting system:               |    |
| Daily Consumption       | t        | Engine (type)                             |    |
| Service Speed           | knt<br>s | Deck (type)                               |    |
| Aux. Engine(s) (type)   |          | <b>Cargo handling gear</b>                |    |
| Boilers (type)          |          | Derricks/Cranes (number)                  |    |
| Steering Gear (type)    |          | Type and SWL                              | t  |
| <b>Bridge Equipment</b> |          | Winches (type)                            |    |
| Radar(s) (type)         |          | Other cargo equipment                     |    |
| ARPA (type)             |          | Cargo Pumps (number/Type)                 |    |
| Log (type)              |          | Cargo Tanks (number)                      |    |
| Gyro (type)             |          | Ballast Tanks (number)                    |    |
| Autopilot (type)        |          | <b>Radio Equipment</b>                    |    |
| Echo Sounder (type)     |          | GMDSS equipment (type)                    |    |
| ISC (type)              |          |                                           |    |

Udfyldes af aspiranten (to be completed by the Trainee).

## Familiarization - Particulars of the Ship

|                         |          |                                           |    |
|-------------------------|----------|-------------------------------------------|----|
| <b>M.V.</b>             |          |                                           |    |
| <b>Port of Registry</b> |          |                                           |    |
| <b>Type of Ship</b>     |          |                                           |    |
| <b>Call Sign</b>        |          | <b>IMO Number</b>                         |    |
| <b>Period from:</b>     |          | <b>Period to:</b>                         |    |
|                         |          |                                           |    |
| <b>Dimensions</b>       |          | <b>Lifesaving equipment</b>               |    |
| Lenght O.A.             | m        | Lifeboats (number)                        |    |
| Breadth                 | m        | Life-rafts (number)                       |    |
| Depth                   | m        | MOB-boat (type)                           |    |
| Summer Draft            | m        | Lifeboat dimensions                       |    |
| Summer Freeboard        | m        | Capacity per boat                         |    |
| Net Tonnage             |          | Capacity per life-raft                    |    |
| Gross Tonnage           |          | Davits (type)                             |    |
| Deadweight              | t        | Lifebuoys (number)                        |    |
| Light Displacement      | t        | Life jackets (number)                     |    |
| Fresh Water Allowance   | t        | <b>Firefighting equipment</b>             |    |
| Immersion at Load Draft | t/c<br>m | Fire Extinguishers (Number and capacity): |    |
| Cargo Capacity          | t        | Dry powder                                | kg |
| Ballast Capacity        | t        | CO <sub>2</sub>                           | kg |
| Fresh Water Capacity    | t        | Soda/Acid                                 | kg |
| <b>Engine Room</b>      |          | Foam                                      | l  |
| Main Engine(s) (type)   |          | Fire hoses (number and size)              | mm |
| Main Engine output      | kW       | Breathing app. (number)                   |    |
| at revs per min.        |          | Fire mans outfit (number)                 |    |
| Bunker Capacity         | t        | Fixed Fire Fighting system:               |    |
| Daily Consumption       | t        | Engine (type)                             |    |
| Service Speed           | knt<br>s | Deck (type)                               |    |
| Aux. Engine(s) (type)   |          | <b>Cargo handling gear</b>                |    |
| Boilers (type)          |          | Derricks/Cranes (number)                  |    |
| Steering Gear (type)    |          | Type and SWL                              | t  |
| <b>Bridge Equipment</b> |          | Winches (type)                            |    |
| Radar(s) (type)         |          | Other cargo equipment                     |    |
| ARPA (type)             |          | Cargo Pumps (number/Type)                 |    |
| Log (type)              |          | Cargo Tanks (number)                      |    |
| Gyro (type)             |          | Ballast Tanks (number)                    |    |
| Autopilot (type)        |          | <b>Radio Equipment</b>                    |    |
|                         |          | GMDSS equipment (type)                    |    |
| ISC (type)              |          |                                           |    |

Udfyldes af aspiranten (to be completed by the Trainee).

## Familiarization - Particulars of the Ship

|                         |          |                                           |    |
|-------------------------|----------|-------------------------------------------|----|
| <b>M.V.</b>             |          |                                           |    |
| <b>Port of Registry</b> |          |                                           |    |
| <b>Type of Ship</b>     |          |                                           |    |
| <b>Call Sign</b>        |          | <b>IMO Number</b>                         |    |
| <b>Period from:</b>     |          | <b>Period to:</b>                         |    |
|                         |          |                                           |    |
| <b>Dimensions</b>       |          | <b>Lifesaving equipment</b>               |    |
| Lenght O.A.             | m        | Lifeboats (number)                        |    |
| Breadth                 | m        | Life-rafts (number)                       |    |
| Depth                   | m        | MOB-boat (type)                           |    |
| Summer Draft            | m        | Lifeboat dimensions                       |    |
| Summer Freeboard        | m        | Capacity per boat                         |    |
| Net Tonnage             |          | Capacity per life-raft                    |    |
| Gross Tonnage           |          | Davits (type)                             |    |
| Deadweight              | t        | Lifebuoys (number)                        |    |
| Light Displacement      | t        | Life jackets (number)                     |    |
| Fresh Water Allowance   | t        | <b>Firefighting equipment</b>             |    |
| Immersion at Load Draft | t/c<br>m | Fire Extinguishers (Number and capacity): |    |
| Cargo Capacity          | t        | Dry powder                                | kg |
| Ballast Capacity        | t        | CO <sub>2</sub>                           | kg |
| Fresh Water Capacity    | t        | Soda/Acid                                 | kg |
| <b>Engine Room</b>      |          | Foam                                      | l  |
| Main Engine(s) (type)   |          | Fire hoses (number and size)              | mm |
| Main Engine output      | kW       | Breathing app. (number)                   |    |
| at revs per min.        |          | Fire mans outfit (number)                 |    |
| Bunker Capacity         | t        | Fixed Fire Fighting system:               |    |
| Daily Consumption       | t        | Engine (type)                             |    |
| Service Speed           | knt<br>s | Deck (type)                               |    |
| Aux. Engine(s) (type)   |          | <b>Cargo handling gear</b>                |    |
| Boilers (type)          |          | Derricks/Cranes (number)                  |    |
| Steering Gear (type)    |          | Type and SWL                              | t  |
| <b>Bridge Equipment</b> |          | Winches (type)                            |    |
| Radar(s) (type)         |          | Other cargo equipment                     |    |
| ARPA (type)             |          | Cargo Pumps (number/Type)                 |    |
| Log (type)              |          | Cargo Tanks (number)                      |    |
| Gyro (type)             |          | Ballast Tanks (number)                    |    |
| Autopilot (type)        |          | <b>Radio Equipment</b>                    |    |
|                         |          | GMDSS equipment (type)                    |    |
| ISC (type)              |          |                                           |    |

Udfyldes af aspiranten (to be completed by the Trainee).

## Vejledende målbeskrivelser for praktikperioderne

### SAFETY FAMILIARIZATION

*(skal opfyldes i forbindelse med hver påmønstring under både den 1. og 2. praktikperiode – husk også at udfylde ovenstående "Particulars of the Ship" ved hver påmønstring)*

#### Formål

- umiddelbart efter påmønstring skal aspiranten ligesom enhver anden, der er beskæftiget om bord, modtage træning og instruktion i forholdsregler ved brand, evakuering af skibet og skibets øvrige nødprocedurer. Kaptajnen eller en specielt udpeget officer skal påtegne oversigtsskemaet over arbejdsopgaver, efter at aspiranten har modtaget den nødvendige træning og/eller instruktioner for at kunne udføre de anførte opgaver og pligter.

#### Aspiranten skal

- kunne slå alarm og handle iht. skibets nødprocedurer.
- kunne anvende skibets sikkerhedsudstyr herunder personlige værnemidler.
- kunne virke iht. skibets sikkerhedsorganisation og kunne indgå i skibets båd-, brand-, MOB- og øvrige sikkerhedsruller på funktionsniveau (under hensyntagen til, at vedkommende er overtallig).
- have kendskab til skibets sikkerhedsprocedurer og rutiner.

#### Sikkerhedsinstruktion

Aspiranten skal:

- kunne kommunikere med de andre besætningsmedlemmer og øvrige ombordværende vedr. sikkerhed
- forstå og benytte skibets sikkerhedsruller, sikkerhedsinformationer, -afmærkninger, flugtveje og alarmsignaler
- vide, hvad der skal gøres, hvis en person falder over bord, hvis der opdages brand eller røg, eller hvis brandalarm eller alarm for at forlade skibet lyder
- vide hvordan affald om bord skal behandles for at undgå miljøforurening, og hvordan man skal forholde sig, hvis miljøforurening observeres
- vide, hvad der umiddelbart skal gøres, hvis et ulykkestilfælde iagttages
- kunne lokalisere samlingsstationer og udskibningssteder samt nødudgange
- kunne lokalisere redningsveste og tage redningsvest korrekt på
- kunne afgive brandalarm og have grundlæggende kendskab til brug af transportable ildslukkere
- kunne lukke og åbne branddøre og vej- og vandtætte døre, som det pågældende skib er udstyret med, bortset fra åbninger i skroget

#### “Shipboard Familiarization”

- Aspiranten skal snarest muligt efter påmønstring modtage udførlig træning og instruktion i skibets nødprocedurer, indretning, arbejds- og vagtrutiner, organisation mv.
- Aspiranten skal rundvises på broen, maskinrummet, bakken, hoveddækket, poopdækket og andre arbejdsområder.

## **Indicative objectives for the seagoing service**

### **SAFETY FAMILIARIZATION**

*(must be fulfilled in connection with every signing on both at 1<sup>st</sup> and 2<sup>nd</sup> period of seagoing service – remember to fill in the list above ‘Particulars of the Ship’ at every signing on)*

#### **Objectives**

- Immediately after joining the ship the trainee must - as everybody else on board - receive training and instructions regarding fire precautions, abandoning ship and ship's safety procedures. The Master or a designated officer must endorse the checklist below, when the trainee has received the necessary training and/or instructions.

#### **The trainee must**

- be able to raise the alarm and act in accordance with the ship's safety procedures.
- be able to use the ship's safety equipment including personal safety equipment.
- act in accordance with the ship's safety organization and in accordance with the boat-, fire, MOB, and other safety related muster lists at a functional level (taking into consideration that the trainee is supernumerary).
- have knowledge of the ship's safety procedures and routines.

#### **Safety instructions**

The Trainee must:

- communicate with crew members and other persons on board on safety matters.
- understand and use the safety musters, safety information, -symbols, -signs, emergency escape routes and alarm signals.
- know what to do if a person falls over board, if fire or smoke is detected, if the fire alarm or alarm for abandon ship is sounded.
- know how garbage is to be handled to avoid pollution of the environment, and how to react in case pollution is observed.
- take immediately action, in case of an accident or other medical emergency.
- identify muster and embarkation stations and emergency escape routes.
- locate and don life jackets.
- raise the fire alarm and have a basic knowledge of using portable fire extinguishers.
- close and open fire doors and weather- and watertight doors fitted in the ship, other than those for hull openings.

#### **‘Shipboard Familiarization’**

- As soon as possible after joining the ship, the trainee must receive detailed training and instruction in ship's safety procedures, arrangements, work- and watchkeeping routines, organization etc.
- The Trainee must be familiarized with the bridge, engine room, forecastle, poop deck, main deck and other working areas.

### **Aspiranten skal**

- læse og demonstrere forståelsen af skibets sikkerheds- og nødprocedurer.
- kunne demonstrere et nøje kendskab til skibets indretning og almindelige arbejds- og vagrutiner.
- udfylde skemaet 'Particulars of the Ship' under den første del af udmønstringen.

### **Instruktion efter påmønstring**

Aspiranten skal kunne:

- orientere sig overalt på skibet
- kommunikere med de andre besætningsmedlemmer og øvrige ombordværende vedr. sikkerhed og almindelige arbejdsrutiner
- lokalisere og benytte førstehjælpsudstyr
- lokalisere og benytte alarmpunkter, brandslukkere, brandhydranter, brandslanger
- forstå skibets instrukser for forebyggelse mod forurening herunder procedurer for håndtering af affald mv.
- forstå skibets specielle instrukser/procedurer for rygning, påklædning, spiritus, narkotika mv.
- forstå skibets instrukser vedr. arbejdstid, udpurring, spisetider, slopkisten mv.

**The Trainee must**

- read and be able to demonstrate understanding of ship's safety- and emergency procedures.
- demonstrate thorough knowledge of the ship arrangements and ordinary work- and watch keeping routines.
- fill in the scheme 'Particulars of the Ship' during the first part of his or her assignment on board

**Introduction after joining the ship**

The Trainee must:

- familiarize oneself everywhere on the ship.
- communicate with others on board regarding safety and ordinary work routines.
- locate and use first aid equipment.
- locate and use alarm activating points, alarm bells, fire extinguishers, hydrants, fire hoses.
- understand ship's instructions for prevention of pollution together with procedures on how to handle garbage etc.
- understand special instructions/procedures regarding smoking, dressing, alcohol, drugs etc.
- understand instructions regarding work hours, wake-up calls, eating time, slop chest etc.

## **INDLEDENDE PRAKTIKPERIODE**

### **SIKKERHED, ARBEJDSMILJØ OG MILJØBESKYTTELSE**

#### **Formål**

- Have forståelse for de praktiske og administrative sikkerhedsmæssige forhold, der er nødvendige for at kunne tilrettelægge og udføre forekommende arbejdsopgaver om bord i skibe under hensyntagen til skibets drift og naturen.
- Være en aktiv del af udviklingen af sikkerhedskulturen om bord.
- Bevidstgøre egne holdninger til sikkerheden om bord.

#### **Uddannelsesmål**

- anvende og deltage i brandrullen på funktionsniveau
- demonstrere brandsikring
- demonstrere brug, eftersyn og vedligehold af brand- og slukningsudstyr herunder brand-varslingsystemer
- anvende og deltage i båd/MOB-rullen på funktionsniveau
- demonstrere brug, eftersyn og vedligehold af skibets redningsudstyr
- demonstrere skibets generelle sikkerhedsprocedurer vedr. grundstødning, kollision mv. herunder planlægning og afholdelse af øvelser om bord
- anvende personlige værnemidler og sikkerhedsudstyr
- anvende skibets dokumentation, procedurer, instruktioner mv., vedr. sikkerhed og arbejdsmiljø

### **VEDLIGEHOOLD OM BORD**

#### **Formål**

Have forståelse for skibets vedligeholdelsesprogram samt deltage aktivt i udførelsen af de planlagte vedligeholdelsesaktiviteter.

#### **Uddannelsesmål**

- demonstrere behandling af ståloverflader før maling samt redegøre for de malingstyper, der anvendes om bord
- forklare brugen af smøreplaner samt demonstrere smøring af bevægelige dele på dæk og i maskinen
- forklare betydningen af og demonstrere rengøring af skibet (aptering, lastrum, maskinrum, stores rum mv.)
- deltage i og redegøre for inspektion af forskellige typer tanke, lastrum, void-space, cofferdam mv.
- demonstrere surring, opklaring og søklaring
- anvende forskellige håndværktøjer, svejseudstyr og værktøjsmaskiner i forbindelse med reparations- og vedligeholdsarbejde

## **PRELIMINARY SEAGOING SERVICE**

### **SAFETY, WORK ENVIRONMENT AND ENVIRONMENTAL PROTECTION**

#### **Objectives**

- have general understanding of the practical and administrative environmental conditions regarding safety and labour, there is necessary to organize and carry out common work tasks on board ship's in consideration of operation of the ship and the nature.
- be a active part of the development of the safety culture on board.
- make aware of own attitude to the safety on board.

#### **Training objectives**

- apply and participate in the fire muster at a functional level.
- demonstrate fire protection.
- demonstrate use, inspection and maintenance of fire- and extinguishing equipment including fire warning systems.
- use and participate in the boat/MOB muster at a functional level.
- demonstrate use, inspection and maintenance of safety equipment on board.
- demonstrate general safety procedures regarding grounding, collision etc. including planning and conduct of drills on board.
- Use personal safety equipment
- comply with ship's documentation, procedures, instructions etc. regarding safety and work environment.

## **MAINTENANCE ON BOARD**

#### **Objectives**

Have general understanding for the ship's maintenance programme and take an active part in the execution of the planned maintenance activities.

#### **Training objectives**

- demonstrate treatment of steel surfaces before painting and describe the types of paint to be used on board.
- explain the use of plans for lubrication and demonstrate lubrication of moving parts on deck and in the engine room.
- Explain the use of and demonstrate cleaning up onboard the ship (superstructure, holds, engine room, stores room etc.
- participate in and describe inspection of misc. types of tanks, cargo, void-space, cofferdam etc.
- demonstrate lashing and clearing up.
- use of misc. hand tools, welding equipment and machine tools in connection with repair- and maintenance work.

## VAGTTJENESTE

### Formål

opnå viden om grundlæggende principper og gældende bestemmelser for vagthold om bord i skibe (bro, dæk og maskine)

### Uddannelsesmål

#### Vagthold (bro, maskine, dæk)

- redegøre for 'bekendtgørelse om vagthold skibe'
- kunne anvende og forstå de internationale søvejsregler, hvad angår nødsignaler, dagsignaler, skibsllys og vigeregler
- kunne opfylde STCW-konventionens reg. II/4 i løbet af de første 6 måneder af den samlede søpraktik ved at indgå i brovagten under opsyn af kvalificeret officer i minimum 2 måneder.
- kunne forstå søkortets opbygning, indhold og anvendelse
- kunne føre bestik og bestemme skibets position ved terrestriske og radiotekniske observationer
- opnå forståelse for den praktiske betjening af elektroniske navigationsinstrumenter, herunder betjening af radar til navigationsformål
- opnå kendskab til brug af radar/ARPA til kollisionsforebyggelse
- kunne føre skibsdagbog og anvende checklister
- have kendskab til rettelse af søkort og håndbøger
- forklare forståelse af 'god broprocedure'
- maskinrummets alarmsystemer
- placering og brug af brandslukningsudstyr i maskinrummet
- procedure vedr. skift fra bemandet til ubemandet maskinrum
- registreringer (logbog, oliejournal, maskinjournaler mv.) i forbindelse med skift af vagten
- procedure vedr. maskinrumsrundering
- krav til vagten under alm. drift, under manøvre, ankring, lodssejlads, nedsat sigt mv.
- særlige driftsformer (ugunstige forhold, nødstyring mv.)

## FORTØJNING OG ANKRING

### Formål

Have forståelse for planlægningen og den praktiske del vedrørende alment fortøjningsarbejde og ankring, der er knyttet til et handelsskib. Ydermere få praktisk indsigt indenfor tilrigning af lodslejder, lodshejs, gangway etc.

## **WATCH DUTIES**

### **Objectives**

Obtain basic knowledge of principles and existing rules regarding watchkeeping duties on board ships.

### **Training objectives**

#### **Watch duties (bridge, engine deck)**

- describe the 'bekendtgørelse om vagthold i skibe'.
  - use and understand the international regulations for preventing collisions at sea regarding distress signals, day signals, lights and sailing rules.
  - fulfil requirements of the STCW-convention regulation II/4 during the first 6 month of seagoing service by taking part in bridge watchkeeping duty for at least two months under supervision of a qualified officer
  - understand the composition and contents of nautical charts and application.
  - carry out dead reckoning and fix of positions by terrestrial observations and radio technical observations.
  - obtain knowledge of practical use of electronic navigational equipment including radar for navigational purpose.
  - obtain knowledge of use of radar/ARPA for the prevention of collision.
  - demonstrate correction of charts and nautical handbooks.
  - explain understanding of 'good bridge procedure'.
- 
- describe alarm systems in the engine room.
  - describe location and use of fire fighting equipment in the engine room.
  - describe change-over from manned to unmanned machinery space.
  - describe logging of data related to taken over the watch (log book entries).
  - describe procedure for routine checking of engine room.
  - describe watch keeping requirements in normal operating conditions and during manoeuvres, anchorage, pilot on board, reduced visibility etc.
  - describe watch keeping requirements in special operating conditions (unfavourable conditions, emergency steering etc.)

## **MOORING AND ANCHORING**

### **Objectives**

Have general understanding for planning of the practical part relating to common mooring and anchoring, attached to a merchant ship. Furthermore achieve practical knowledge within rigging pilot ladder, pilot hoist, gangway etc.

## **LASTNING OG LOSNING**

### **Formål**

Have forståelse for anvendelse af skibets udstyr til lastning, losning og sikring af ladningen, og kunne relatere til det på en sikkerhedsmæssig forsvarlig måde.

### **Uddannelsesmål**

#### **Laste- og lossegrejer**

- demonstrere proceduren omkring vedligehold, certificering og klargøring af udstyr til håndtering, sikring og surring af ladningen
- demonstrere søklaring af skibet.

## **RØRSYSTEMER OG TANKE**

### **Formål**

Have forståelse for nødvendigheden og omfanget af de til et større skib og dets fremdrivningsanlæg hørende rørsystemer, deres indbyrdes sammenhæng, samt hvorledes de under drift påvirker hinanden herunder:

- Ballast systemet
- Ferskvandssystemet
- Lensesystemet
- Fremdrivningsanlæggets rørsystemer
- Tørtanke, herunder void-spaces og cofferdamme

## **MASKINANLÆG**

### **Formål**

Have forståelse for opbygning og indretning af et større maskinanlæg, samt have indsigt i anlæggets væsentligste aggregater/komponenter, deres formål og primære funktion samt at have indblik i anlæggets drift og vedligehold.

### **Uddannelsesmål**

- redegøre for opbygning og virkemåde af både hovedmotor og hjælpemotorer
- demonstrere hvorledes redningsbådsmotoren startes og betjenes
- redegøre for hjælpeaggregaternes funktion, opbygning og virkemåde herunder turboladere, startluftkompressor, centrifuger, kedler, ferskvandsgeneratoren, styremaskinen, pumper, køleanlægget, thrustere og dæksmaskineri.
- redegøre for klargøring, opstart, drift og afbakning af hovedmotoren og hjælpemotor samt nødkørsel med hovedmaskineriet.
- redegøre for de almindeligst forekommende typer filtre og afspærringsmidler.
- redegøre for port inspektioner, stempeltræk og udskiftning af cylinderforing.
- redegøre for eftersyn af bolte, udstødsventiler, af bevægelige dele, lejer.

## **LOADING AND DISCHARGING**

### **Objectives**

Have general understanding of application of cargo gear to loading, discharging and protection of cargo, and be able to handle it in a safe way.

### **Training objectives**

#### **Cargo gear**

- demonstrate the procedure about maintenance, certification, preparation of equipment to handling, securing and lashing of cargo
- demonstrate knowledge of how to make the ship ready for a voyage

## **PIPING ARRANGEMENT AND TANKS**

### **Objectives**

Have general understanding of the necessity for and extent of the piping arrangements for a larger ship and its propelling machinery and their interrelationship during normal operations including:

- Ballast system
- Freshwater system
- Bilge system
- Propulsion machinery piping arrangement
- Dry tanks, including void-spaces and cofferdams

## **MACHINERY**

### **Objectives**

Have general understanding of the structure and arrangements of a larger machinery, and knowledge of the main parts/components including their purpose and primary function. Besides have insight in the operation and maintenance of the machinery.

### **Training objectives**

- describe the construction and operation of the main engine and the auxiliary engine.
- demonstrate start-up and operation of the lifeboat motor.
- describe the function, construction and operation of the auxiliary units including turbo charger, starting air compressor, purifiers, boilers, fresh water generator, steering gear, pumps, refrigerating plant, thrusters and deck machinery.
- describe the preparation, start-up, operation, maintenance and stopping of the main engine and the auxiliary engine including emergency operation of the main engine.
- describe the most common types of filters and shut-off devices.
- describe inspection through scavenge ports, overhaul of a piston and replacement of a cylinder liner.
- describe inspection of bolts, exhaust valves, moving parts and bearings.

## ELFORSYNING- OG HOVEDFORDELINGSANLÆG

### Formål

Have forståelse for skibets el-forsyningsanlæg, herunder generatorer, hovedfordelingsanlæg og forbrugere samt have indblik i farerne ved omgang med skibets el-forsyningsanlæg, således at aspiranten i praktikperioden ikke udsættes for personlig risiko eller forårsager driftsforstyrrelser.

### Uddannelsesmål

- beskrive generatoren og nødgeneratoren og deres funktioner
- beskrive hovedtavlen opbygning ud fra et etstregsdiagram og forklare dens funktion
- redegøre for de forskellige beskyttelsesmidler i hovedfordelingsanlægget
- redegøre for de væsentligste forbrugere og deres funktion
- forklare forekommende systemspændinger samt redegøre for årsagen til anvendelse af jævnstrøm, en- og tre-fasede anlæg, batterier og sikkerheds-spænding
- redegøre for foranstaltninger til forebyggelse af personlig fare herunder beskrive de områder der kan udgøre en personlig fare ved omgang med spændingsførende anlæg og forklare hvorledes der kan afbrydes for disse.

## SKIBSSPECIFIKKE AFSNIT

### Formål

Have forståelse for det aktuelle skibs udstyr på en **sikkerhedsmæssig** forsvarlig måde både med hensyn til sig selv, besætningen, skib, miljø og ladning.

Endvidere skal aspiranten have:

- arbejdet med håndbøger og publikationer, som er aktuelle for besætning, skib, miljø og ladning på den pågældende skibstype.
- have deltaget i flere typer af aktuelle arbejdsopgaver og kunne beskrive proceduren omkring vedligehold, survey, certificering og klargøring af lastrum.
- have arbejdet med de forskellige typer af alarmer, sikringer og udstyr til sikring under lastning/losning, som findes ombord, og kende procedurene relateret hertil både ved afprøvning og ved hændelser.
- have deltaget i flere typer af aktuelle arbejdsopgaver omkring og kunne beskrive proceduren omkring håndtering af ladningen samt overvågning og kontrol af denne.
- på passagerskibe have deltaget i og kunne beskrive proceduren omkring håndtering af passagerer og ladningen samt overvågning og kontrol af disse.
- på forsynings- og ankerhåndteringsskibe have deltaget i flere typer af aktuelle arbejdsopgaver omkring og kunne beskrive proceduren omkring håndtering af ladningen, ankre, kæder, bøjer m.v. samt overvågning og kontrol af disse.

## **ELECTRICAL POWER SUPPLY AND MAIN SWITCHBOARD**

### **Objectives**

Have general understanding of the ship's electrical power supply including generators, main switch board and consumer units plus possess insight in dangers when handling the ship's electrical supply units, in order for the trainee during on-board service to avoid personal risks and also avoid causing interruption in the operation of such units.

### **Training objectives**

- describe the generator and the emergency generator and their functions.
- Describe the construction of the main switchboard from a blueprint and explain the way it works
- describe the various protection devices in the main switchboard .
- describe essential consumer units and their functions.
- describe the main voltages and describe the reasons for using direct current, two- and three-phase plants, batteries and safety voltage.
- describe precautions to prevent danger to personnel and describe the areas of personal risk and danger when using power plants, and how they are switched off.

## **SHIP SPECIFIC SECTION**

### **Objectives**

Have general understanding of the actual ship's equipment in a secure way with respect to oneself, the crew, the ship, environment and cargo.

Besides the trainee must:

- work with handbooks and publications for crew, ship, environment and cargo on the relevant type of ship.
- have participated in more types of work tasks and be able to describe the procedure about survey, certification and preparation of cargo holds.
- have worked with different types of alarms, securing and equipment to protection in connection with loading/discharging and know the procedures related to this both by test and by accidents.
- have participated in more types of work tasks and be able to describe the procedure about handling of cargo including monitoring and control.
- on passenger ship's, have participated and be able to describe the procedure concerning handling of passengers and cargo including monitoring and control.
- on supply- and anchor handling ships have participated in more types of work tasks and be able to describe the procedure concerning handling of cargo, anchors, chains, buoys etc including monitoring and control.

## ARBEJDSOPGAVER TIL DEN INDLEDENDE SØPRAKTIK

### Opgave 1.1: Dagligdag om bord.

#### Formål

Formålet med opgaven er at give aspiranten indsigt i skibets dagligdag og jobbet som skibsofficer. Opgaven vil blive brugt i den efterfølgende teoretiske undervisning. Efter at have gennemført familiarisation, skal aspiranten beskrive hverdagen om bord med udgangspunkt i nedenstående spørgsmål:

1. Hvad er formålet med en familiarisation checkliste?
2. Hvad nyt lærte du, da du udfyldte checklisten?
3. Hvem er om bord, og hvad laver de (hvilke ansvarsområder har de)?
4. Lav en generel oversigt over de enkelte personers arbejdstid og fritid.
5. Hvilke regler (skrevne som uskrevne) findes med hensyn til færden om bord?
6. Beskriv en ankomst til og afgang fra havn med udgangspunkt i spørgsmål 3.

#### Godkendelse af opgaven:

- Besvarelsen forberedes mundtligt og/eller skriftligt, og fremlægges i en samtale med en relevant officer.
- Aspiranten vurderer med baggrund i samtalen med officeren, om formålet med opgaven er opfyldt. Vurderingen skal dokumenteres skriftligt i logbogen.

## **WORK TASKS TO THE PRELIMINARY SEAGOING PRACTICE**

### **Assignment 1.1: Everyday life on board.**

#### **Purpose:**

The purpose of the assignment is to give the apprentice an insight in the everyday life on a ship and the job as a ship officer. The assignment will be used in the subsequent theoretical education. After having completed familiarisation the apprentice must make a description of the everyday life on board starting from the questions below:

1. What is the purpose of a familiarisation checklist?
2. What was new to you filling out the checklist?
3. Who is on board and what do they do (which areas of responsibility do they have)?
4. Make a general overview of the different people's work time and spare time.
5. Which rules (written as well as unwritten) with regards to activities on board exist?
6. Describe an arrival to and departure from port starting from question 3.

#### **Approval of the assignment:**

- The solution to the assignment is prepared in written and/or oral form, and is presented in a conversation with a relevant officer.
- In the light of this conversation, the apprentice will evaluate whether the purpose of the assignment has been fulfilled. The evaluation must be documented in writing in the logbook.

## Opgave 1.2: Sikkerhed og arbejdsmiljø

Formål:

Formålet med denne opgave er at give aspiranten indsigt i, hvordan generel arbejdssikkerhed håndteres ombord.

1. Hvorledes håndteres de daglige arbejdsopgaver ombord med hensyn til:
  - Instruktion i arbejdets udførelse?
  - Vurdering af risici ved arbejdet?
  - Arbejdets sikre udførelse?
  - Kontrol og tilsyn under arbejdet?
  - Nødvendig dokumentation for korrekt udførelse af arbejdsopgaver?

Godkendelse:

Opgaven besvares med udgangspunkt i en konkret vedligeholdelsesopgave, som aspiranten skal udføre.

2. Hvad forstås der ved begrebet ”at gøre søklar”?
  3. Hvordan gøres der søklar på dit skib?
- Besvarelsen forberedes mundtligt og/eller skriftligt, og fremlægges i en samtale med uddannelsesofficeren.
  - Aspiranten vurderer med baggrund i samtalen med uddannelsesofficeren, om formålet med opgaven er opfyldt. Vurderingen skal dokumenteres skriftligt i logbogen.
  - Bilag udfyldt i forbindelse med udførelsen af opgave 1 vedlægges i logbogen.

## Assignment 1.2: Safety and work environment

### Purpose:

The purpose of this assignment is to give the apprentice an insight in how the general work safety is handled on board.

1. How are the daily tasks on board handled with regards to:
  - Instruction in the execution of the task?
  - Assessment of risk?
  - The safe execution of the task?
  - Control and supervision during the task?
  - Necessary documentation for correct execution of work tasks?

### Approval:

The assignment is solved starting with a specific maintenance task which the apprentice has to perform.

2. Explain the term “to make the ship ready for sea prior to departure”
3. How is your ship made ready for sea prior to departure?
  - The solution to the assignment is prepared in written and/or oral form, and is presented in a conversation with the training officer.
  - In light of this conversation, the apprentice will evaluate whether the purpose of the assignment has been fulfilled. The evaluation must be documented in writing in the logbook.
  - Supplements filled out in connection with the performance of question 1 must be enclosed in the logbook.

### Opgave1.3: Vagttjeneste.

#### Formål

Formålet med opgaven er at give aspiranten indsigt i skibets forskellige vagtrutiner under hensyntagen til skibets driftstilstande. Opgaven vil blive brugt i den efterfølgende teoretiske undervisning.

Det er vigtigt, at underspørgsmålene løses i den givne rækkefølge.

1. Hvordan er bro-/ og maskinvagten sammensat på dit skib, når skibet er:
  - Under oceanpassage
  - Sejlads i snævre farvande
  - Til ankers
  - Langs kaj i havn
2. Hvem har sammensat de forskellige vagtsystemer ombord?
3. Hvem formulerer de stående ordrer for bro-/ og maskinvagten, og hvad er formålet med dem?
4. Hvordan er checklisterne udformet og hvordan bruges de?
5. Beskriv, på baggrund af dine egne iagttagelser, forløbet for overlevering af bro-/ og maskinvagten – før, under og efter overtagelsen af vagten.
6. Foretag et interview med en vagthavende omkring både bro-/ og maskinvagtens overdragelse og gennemførelse.

#### Godkendelse af opgaven:

- Besvarelsen forberedes mundtligt og/eller skriftligt, og fremlægges i en samtale med uddannelsesofficeren.
- Aspiranten vurderer med baggrund i samtalen med uddannelsesofficeren, om formålet med opgaven er opfyldt. Vurderingen skal dokumenteres skriftligt i logbogen.

### **Assignment1.3: Watch duties**

Purpose.

The purpose of this assignment is to give the apprentice an insight in the different watch keeping routines taking the operational conditions of the ship into consideration. The assignment will be used in the subsequent theoretical education.

It is important that the questions below are solved in the given order.

1. How is the bridge and engine room watch made up on your ship when the ship is:
  - On an ocean passage.
  - Navigating in narrow waters.
  - At anchor.
  - Berthed in a port.
2. Who has made up the different watch keeping systems on board?
3. Who makes the standing orders for the bridge and engine room watch, and what is the purpose of them?
4. How are the checklists drawn up and used?
5. In the light of your own observations, describe the sequence of passing over the bridge and engine room watch – before, during and after the watch.
6. Make an interview with a watch-keeping officer about the transfer and keeping of both the bridge and engine room watch.

Approval of the assignment:

- The solution to the assignment is prepared in written and/or oral form, and is presented in a conversation with the training officer.
- In light of this conversation, the apprentice will evaluate whether the purpose of the assignment has been fulfilled. The evaluation must be documented in writing in the logbook.

## Opgave 1.4: Fortøjning og ankring samt dæksudstyr

### Formål

Formålet med opgaven er at give aspiranten generel indsigt i skibets dæksudstyr samt hvorledes dette bliver brugt. Opgaven vil blive brugt i den efterfølgende teoretiske undervisning.

### Fortøjning / ankring:

1. Hvilke arbejdssikkerhedsmæssige risici er der i forbindelse med fortøjnings- og ankringsarbejde og hvorledes håndteres disse?

Forslag til praktiske øvelser i brug af fortøjnings-/ankerspil, der kan foretages ombord:

- Betjening af spil
- Brug af spilkop.
- Brug af tovværksstopper.
- Fastgøring af trosse på pullert
- Betjening af ankerspil
- Brug af slæbetrosse

### Kraner/løfteudstyr:

1. Hvilke arbejdssikkerhedsmæssige risici er der i forbindelse med brug af kraner og hvorledes håndteres disse?
2. Hvilke typer kraner/løfteudstyr forefindes ombord og hvad bruges de primært til?

Forslag til praktiske øvelser i brug af kraner, der kan foretages ombord:

- Løft af gods i slæng.
- Løft af gods på palle.
- Løft af gods i wirer / stropper.
- Løft af tromler med brug af tilhørende løfteværktøj.
- Løft af gas- og iltflasker med brug af tilhørende løfteværktøj.

### Gangway / lodslejder / lodshejs:

1. Hvilke arbejdssikkerhedsmæssige risici er der i forbindelse med tilrigning og brug af gangway samt udstyr til ombordtagning af lods og hvorledes håndteres disse?
2. Beskriv tilrigning af gangway samt tilrigning af udstyr til ombordtagning af lods.

### Godkendelse af opgaven:

- Besvarelsen forberedes mundtligt og/eller skriftligt, og fremlægges i en samtale med uddannelsesofficeren.
- Aspiranten vurderer med baggrund i samtalen med uddannelsesofficeren, om formålet med opgaven er opfyldt. Vurderingen skal dokumenteres skriftligt i logbogen.
- De praktiske øvelser udføres i det omfang det er muligt, og erfaringerne kommenteres af aspiranten i logbogen.

## **Assignment 1.4: Mooring, anchoring and deck equipment**

### **Purpose.**

The purpose of the assignment is to give the apprentice a general insight in the deck equipment of the ship as well as how to use it. The assignment will be used in the subsequent theoretical education.

### **Berthing/anchoring:**

1. Which work safety related risks are connected to the tasks of berthing and anchoring and how do you deal with them?

Suggestions for practical exercises in the use of berthing and anchor winches which can be executed on board:

- Operation of winch.
- Operation of capstan.
- Operation of stopper.
- Securing of hawser on bitt.
- Operation of windlass.
- Use of towing hawser.

### **Cranes/lifting equipment:**

1. Which work safety related risks are connected to the use of cranes and how do you deal with them?
2. Which types of cranes/ lifting equipment are to be found on board and what are they primarily used for?

Suggestions for practical exercises in the use of cranes which can be executed on board:

- Lifting cargo in sling.
- Lifting cargo on pallet.
- Lifting cargo in wires/straps.
- Lifting drums with the matching lifting equipment.
- Lifting gas and oxygen cylinders with the matching lifting equipment.

### **Gangway/pilot ladder/ pilot hoist:**

1. Which work related safety risks are connected to the rigging and use of gangway as well as the equipment for taking on board a pilot, and how do you deal with them?
2. Describe the rigging of gangway as well as the rigging of equipment for taking on board a pilot.

### **Approval of the assignment:**

- The solution to the assignment is prepared in written and/or oral form, and is presented in a conversation with the training officer.
- In light of this conversation, the apprentice will evaluate whether the purpose of the assignment has been fulfilled. The evaluation must be documented in writing in the logbook.
- The practical exercises are executed to the extent possible and the experiences are commented on by the apprentice in the logbook.

## Opgave 1.5: Lastning og losning

Formål:

Formålet med opgaven er at give aspiranten indblik i generelle lasthåndteringsforhold om bord.

1. Følg den vagthavende officer igennem en hel vagt på dækket og skriv et kort resume over hvilke opgaver I løste/ hvad I lavede.

Du kan eksempelvis tage udgangspunkt i:

- Planlægning af lastning og losning.
- Praktisk udførelse af lastning og losning.
- Overvågning af lastning og losning.
- Kontrol af stabilitet.
- Surring af lasten.
- Kontrol af om skibet må sejle med den planlagte last.

2. Beskriv hvorledes lasten overvåges under sejlads.

- Hvilke ladningstyper skal der holdes særligt øje med, og hvorfor?
- Hvem gør det?
- Hvordan gør de det?
- Hvem skal du alarmere, hvis du opdager en lækage med farligt gods?

Godkendelse af opgaven:

- Besvarelsen forberedes mundtligt og/eller skriftligt, og fremlægges i en samtale med uddannelsesofficeren.
- Aspiranten vurderer med baggrund i samtalen med uddannelsesofficeren, om formålet med opgaven er opfyldt. Vurderingen skal dokumenteres skriftligt i logbogen.

## Assignment 1.5: Loading and discharging

### Purpose:

The purpose of the assignment is to give the apprentice a general insight in the general conditions of dealing with cargo on board.

1. Follow the watch keeping officer during an entire duty on deck and write a short resume about which tasks you solved/what you did. You could start from:
  - Planning of loading and discharging.
  - Practical execution of loading and discharging.
  - Supervision of loading and discharging.
  - Control of stability.
  - Lashing of cargo.
  - Control of whether the ship can sail with the planned cargo.
2. Describe how the cargo is supervised during the voyage.
  - Which types of loading are to be watched extra closely and why?
  - Who does it?
  - How do they do it?
  - Who should you alarm if you find a leakage with dangerous cargo?

### Approval of the assignment:

- The solution to the assignment is prepared in written and/or oral form, and is presented in a conversation with the training officer.
- In light of this conversation, the apprentice will evaluate whether the purpose of the assignment has been fulfilled. The evaluation must be documented in writing in the logbook.

## Opgave 1.6: Søkort og håndbøger

Formål:

Formålet er at give aspiranten indblik i praktisk anvendelse af navigationshjælpemidler.

### 1. Søkort

- Hvilke typer af søkort findes?
- Hvor på søkortet finder du informationer og oplysninger om nedenstående punkter?
  - Målestok
  - Bredde / længde
  - Datum
  - Dybder
  - Noter
  - Strøm
  - Tidevand
  - Andre relevante oplysninger, såsom tidszoner, bundforhold etc.

Forslag til praktiske øvelser der kan foretages om bord:

- Udsætning/opmåling af kurser og positioner i søkort
- Udsætning/opmåling af pejlinger og afstande i søkort
- Usikkerheder ved brug af søkort
- Opdatering og vedligehold af søkort (søkortsrettelser – Notice to Mariners)

### 2. Håndbøger

Med udgangspunkt i en konkret rejse, skal du undersøge følgende:

- Hvilke typer af håndbøger anvendes der?
- Hvilken information anvendes fra disse håndbøger?
- Hvorledes og hvornår skal denne information bruges?
- Hvordan opdateres og vedligeholdes håndbøgerne (Notice to Mariners)?

Godkendelse af opgaven:

- Besvarelsen forberedes mundtligt og/eller skriftligt, og demonstreres for den relevante officer.
- Aspiranten vurderer med baggrund i samtalen med uddannelsesofficeren, om formålet med opgaven er opfyldt. Vurderingen skal dokumenteres skriftligt i logbogen.

## Assignment 1.6: Charts and handbooks

Purpose:

The purpose of this assignment is to give the apprentice an insight in the practical use of navigational aids.

### 1. Charts

- Which types of charts exist?
- Where on the chart do you find information and data on the points below?
  - Scale
  - Latitude/longitude
  - Datum
  - Depths
  - Notes
  - Current
  - Tide
  - Other relevant information such as time zones, sea floor conditions, etc.

Suggestions for practical exercises which can be executed on board:

- Plotting/measuring of course and position on a chart.
- Plotting/measuring of bearings and distances on a chart.
- Uncertainties in the use of charts.
- Updating and maintenance of charts (chart corrections – Notice to Mariners)

### 2. Handbooks.

Starting with a specific voyage, you must inquire into the following:

- Which types of handbooks are used?
- Which information is used from these handbooks?
- How and when is the information used?
- How are the handbooks updated and maintained (Notice to Mariners)?

Approval of assignment:

- The solution to the assignment is prepared in written and/or oral form, and is demonstrated to the relevant officer.
- In light of this demonstration, the apprentice will evaluate whether the purpose of the assignment has been fulfilled. The evaluation must be documented in writing in the logbook.

## Opgave 1.7: Rørsystemer og tanke

Formål med opgaven er at give aspiranten indsigt i hvorledes hjælpe/service systemerne indvirker på skibets drift, under hensyntagen til skibs forskellige driftssituationer.

Opgaven løses som delopgaver, der godkendes hver for sig.

### 1. Ballast system

- Hvad er formålet med ballastsystemet og hvem betjener det?
- Hvornår anvendes ballastsystemet?
- Hvorledes håndteres ballast i forbindelse med et konkret havneophold?

### 2. Læsesystemet

- Hvad er formålet med skibets læsesystemer, og hvem betjener dem?
- Forklar i forbindelse med en konkret læseopgave, læsevandets vej gennem systemet.

### 3. Brandsystemet

- Hvad findes der af fastinstalleret brandslukningsudstyr ombord?
- Hvordan er skibets brandvarslings anlæg opbygget med udgangspunkt i?
  - Hvorfra kan systemet opereres?
  - Hvad findes der af detektorer?
  - Hvorledes og hvornår testes anlægget?

### 4. Fuel/Bunker system

- Beskriv fuelens vej gennem systemet fra bunkertanke tanke til indsprøjtning i skibets hovedmotor, herunder hvilke temperaturer/tryk samt processer fuelen gennemgår undervejs.

### 5. Trykluftsystemer tilknyttet maskinrummet:

- Hvad anvendes den komprimerede luft til der forefindes ombord?
- Hvordan bliver den komprimerede luft genereret?
- Hvilke tryk opererer man med og hvor anvendes de forskellige tryk?

### 6. Kølevandssystemer

Søvand:

- Beskriv søvandets vej fra det kommer ind i skibet til det forlader skibet, herunder hvilke komponenter det har kontakt med undervejs samt tryk og temperaturer.
- Hvorledes vedligeholdes skibets søvandskølere?
- Hvorledes undgås korrosion af søvandssystemet?

## Assignment 1.7: Piping arrangement and tanks

The purpose of the assignment is to give the apprentice an insight in how the help/service systems influence the operation of the ship taking the different situations into consideration. The assignment is parted into seven minor assignments which will be approved separately.

### 1. Ballast system

- What is the purpose of the ballast system and who operates it?
- When is the ballast system in use?
- How is the ballast handled during a specific stay in port?

### 2. Bilge system

- What is the purpose of the bilge systems on the ship and who operates them?
- Explain in connection with a specific bilge task, the passage of the bilge water through the system.

### 3. Fire-fighting system

- Which kinds of fixed fire-fighting equipment exist on board?
- How is the fire warning system composed on the ship starting in:
  - From where is the system operated?
  - What detectors can you find?
  - How and when is the system tested?

### 4. Fuel/bunker system

- Describe the route through the system from bunker tank to injection into the main engine of the ship, including which temperatures/pressure and processes the fuel undergoes on the way.

### 5. Compressor systems in connection with the engine room

- What is the compressed air used for found on board?
- How is the compressed air generated?
- Which levels of pressure do you operate with and where are they used?

### 6. Cooling water systems

Sea water:

- Describe the route of the sea water through the system as it enters the ship and until it leaves it again, including with which components it is in contact and the pressure and temperatures.
- How are the sea water coolers on the ship maintained?
- How do you avoid corrosion in the sea water cooling system?

Ferskvand:

- Beskriv ferskvandets vej fra det forlader skibets kølere indtil det vender tilbage.
- Hvordan kan det være man opererer med forskellige kølevandstemperaturer?
- Hvorledes holdes den ønskede kølevandstemperatur i kølevandssystemet?

7. Dampanlæg (hvis disse forefindes om bord)

- Hvad anvendes dampen til ombord?
- Hvad findes der af kedler ombord og hvornår anvendes disse?
- Beskriv med afsæt i skibets dampsystem dampens flow fra kedel til forbruger og derefter som fødevand tilbage til kedlen.(vælg selv en forbruger eks. forvarmer til hovedmotorens kølevand)
- Hvordan tilses kedelvandet ombord på dit skib?

Godkendelse af opgaven:

- Besvarelsen af delopgaverne forberedes mundtligt og/eller skriftligt, og fremlægges i en samtale med en relevant officer ved en fysisk gennemgang af systemet, såfremt dette er praktisk muligt.
- Aspiranten vurderer med baggrund i samtalen med uddannelsesofficeren, om formålet med opgaven er opfyldt. Vurderingen skal dokumenteres skriftligt i logbogen.

Fresh water:

- Describe the route of the fresh water through the system starting and ending in the coolers of the ship.
- How come you operate with different cooling water temperatures?
- How is the wanted cooling water temperature kept in the cooling water system?

7. Steam plants (if such exist on board)

- What is the steam used for on board?
- What boilers do you find on board and when are they used?
- Describe the flow of the steam from boiler to consumer and then as feeding water back to the boiler starting in the steam system on board (choose a consumer for instance the pre-heater of the cooling water for the main engine).
- How is the boiler water on board your ship attended to?

Approval of the assignment:

- The solutions to the assignments are prepared in written and/or oral form, and are presented to a relevant officer at a physical examination of the system where practicable.
- In light of this demonstration, the apprentice will evaluate whether the purpose of the assignment has been fulfilled. The evaluation must be documented in writing in the logbook.

### **Opgave 1.8: Elforsynings og hovedfordelingsanlæg**

- Hvilke maskiner kan generere strøm ombord?
- Nævn eksempler på hvilke spændingsniveauer anvendes ombord og til hvad?
- Beskriv hvilke komponenter strømmen gennemløber fra en generator til skibets lanterner, samt hvordan disse lanterner nødforsynes.

#### **Godkendelse af opgaven:**

- Besvarelsen af opgaven forberedes mundtligt og/eller skriftligt, og fremlægges i en samtale med en relevant officer ved en fysisk gennemgang af systemet, såfremt dette er praktisk muligt.
- Aspiranten vurderer med baggrund i samtalen med uddannelsesofficeren, om formålet med opgaven er opfyldt. Vurderingen skal dokumenteres skriftligt i logbogen.

### **Assignment 1.8: Electrical supply and main switchboard**

- Which machines generate power on board?
- Name some examples of different levels of voltage used on board and for what?
- Describe which components the power runs through from a generator to the lanterns of the ship and how these lanterns get emergency supply.

Approval of the assignment:

- The solution to the assignment is prepared in written and/or oral form, and is presented to a relevant officer at a physical examination of the system where practicable.
- In light of this demonstration, the apprentice will evaluate whether the purpose of the assignment has been fulfilled. The evaluation must be documented in writing in the logbook.

## Opgave 1.9: Maskinanlæg

### Formål:

Formålet med opgaven er at give aspiranten indsigt i hvorledes skibet drives frem og manøvreres med udgangspunkt i det ombordværende maskineri. Opgaven vil blive brugt i den efterfølgende teoretiske undervisning.

#### 1. Fremdrivningsmaskineri:

- Hvorfra kan fremdrivningsmaskineriet betjenes?
- Med udgangspunkt i en maskinvagt, beskriv opstarten af fremdrivningsmaskineriet i forbindelse med proceduren for afgang.
- Beskriv hvilke daglige checks der udføres på inspektionsrunderingerne i forhold til fremdrivningsmaskineriet.

#### 2. Styremaskineri:

- Hvorfra kan styremaskineriet betjenes?
- Beskriv hvilke checks der udføres i forbindelse med de daglige inspektioner af styremaskineriet samt ved kontrol for afgang fra havn.
- Forklar med udgangspunkt i skibets styrestand, hvorledes skibet kan styres efter begreberne NFU (Non Follow Up) og FU (Follow Up).

#### 3. Sidepropeller (hvis disse forefindes)

- Hvorfra kan sidepropellerne betjenes?
- Beskriv hvilke checks der udføres i forbindelse med de daglige inspektioner af sidepropeller samt ved kontrol for afgang fra havn.
- Hvilke betingelser skal være opfyldt for at sidepropellerne kan startes?

#### 4. Generel manøvrering:

- Med udgangspunkt i en brovagt, beskriv ud fra egne observationer hvordan skibet lægges til kaj. Herunder anvendelsen af:
  - Fremdrivningsmaskineri
  - Styremaskineri
  - Sidepropeller (hvis disse forefindes)

### Godkendelse af opgaven:

- Besvarelsen forberedes mundtligt og/eller skriftligt, og fremlægges i en samtale med uddannelsesofficeren.
- Aspiranten vurderer med baggrund i samtalen med uddannelsesofficeren, om formålet med opgaven er opfyldt. Vurderingen skal dokumenteres skriftligt i logbogen.
- Bilag/checklister udfyldt i forbindelse med udførelsen af opgaverne vedlægges i logbogen.

## Assignment 1.9: Machinery

### Purpose:

The purpose of the assignment is to give the apprentice an insight in how the ship is propelled and manoeuvred starting in the machinery on board. The assignment will be used in the subsequent theoretical education.

#### 1. Propulsion machinery:

- From where is the propulsion machinery operated?
- Starting in an engine room watch, describe the starting up of the propulsion machinery in connection with the procedure for departure.
- Describe which daily checks are completed on the rounds of inspection with regard to the propulsion machinery.

#### 2. Steering gear:

- From where can the steering gear be operated?
- Describe which checks are completed in connection with the daily inspections of the steering gear as well as controls prior to departure from port.
- Starting in the steering console of the ship, explain how the ship is steered according to the terms NFU (Non Follow Up) and FU (Follow Up).

#### 3. Bow and stern thrusters (if available on the ship)

- Where from are the bow and stern thrusters operated?
- Describe which checks are completed in connection with the daily inspections of bow and stern thrusters as well as controls prior to departure from port.
- Which terms must be met to start the bow and stern thrusters?

#### 4. General manoeuvring:

- Starting in a watch on the bridge; describe according to your own observations how the ship is berthed. Herein the use of:
  - Propulsion machinery.
  - Steering mechanisms.
  - Bow and stern thrusters.

### Approval of the assignment:

- The solution to the assignment is prepared in written and/or oral form, and is presented in a conversation with the training officer.
- In light of this conversation, the apprentice will evaluate whether the purpose of the assignment has been fulfilled. The evaluation must be documented in writing in the logbook
- Supplements filled out in connection with the performance of question 1 must be enclosed in the logbook.

## Oversigt over arbejdsopgaver

Attestation for gennemførte og godkendte arbejdsopgaver. Arbejdsopgaverne skal kunne dokumentere opfyldelse af målbeskrivelserne (se ovenfor).

| Opgave nr.:                                          | Emne:                            | Mål<br>Side nr. | Uddannelsesmål:                                                                                                                                                                                                       | Bemærkninger: | Uddannelsesofficer<br>Dato og underskrift |
|------------------------------------------------------|----------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------------------------------|
| <b>SAFETY FAMILIARIZATION – INDLEDENDE SØPRAKTIK</b> |                                  |                 |                                                                                                                                                                                                                       |               |                                           |
| Arbejdsopgave nr. 1.0                                | Safety Familiarization – 1. skib |                 | Umiddelbart efter hver påmønstring skal aspiranten ligesom enhver anden, der er beskæftiget om bord, modtage træning og instruktion i forholdsregler ved brand, evakuering af skibet og skibets øvrige nødprocedurer. |               |                                           |
| Arbejdsopgave nr. 1.0                                | Safety Familiarization – 2. skib |                 | Umiddelbart efter hver påmønstring skal aspiranten ligesom enhver anden, der er beskæftiget om bord, modtage træning og instruktion i forholdsregler ved brand, evakuering af skibet og skibets øvrige nødprocedurer. |               |                                           |
| Arbejdsopgave nr. 1.0                                | Safety Familiarization – 3. skib |                 | Umiddelbart efter hver påmønstring skal aspiranten ligesom enhver anden, der er beskæftiget om bord, modtage træning og instruktion i forholdsregler ved brand, evakuering af skibet og skibets øvrige nødprocedurer. |               |                                           |
| Arbejdsopgave nr. 1.0                                | Safety Familiarization – 4. skib |                 | Umiddelbart efter hver påmønstring skal aspiranten ligesom enhver anden, der er beskæftiget om bord, modtage træning og instruktion i forholdsregler ved brand, evakuering af skibet og skibets øvrige nødprocedurer. |               |                                           |
| Arbejdsopgave nr. 1.0                                | Safety Familiarization – 5. skib |                 | Umiddelbart efter hver påmønstring skal aspiranten ligesom enhver anden, der er beskæftiget om bord, modtage træning og instruktion i forholdsregler ved brand, evakuering af skibet og skibets øvrige nødprocedurer. |               |                                           |

## Overview of work tasks

Documentary evidence of sustained and approved work tasks. The work task must prove compliance of objectives.

| Work task no.:                                               | Subject:                          | Objective<br>Side no.: | Training objective:                                                                                                                                                                                                                     | Remarks: | Training officer<br>Date and signature |
|--------------------------------------------------------------|-----------------------------------|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------|
| <b>SAFETY FAMILIARIZATION – PRELIMINARY SEAGOING SERVICE</b> |                                   |                        |                                                                                                                                                                                                                                         |          |                                        |
| Work task no. 1.0                                            | Safety Familiarization – 1st ship |                        | Immediately after every signing on the trainee must, like any other who is occupied on board, receive training and instruction in precaution in connection with fire, evacuation of the ship and the ship's other emergency procedures. |          |                                        |
| Work task no. 1.0                                            | Safety Familiarization – 2nd ship |                        | Immediately after every signing on the trainee must, like any other who is occupied on board, receive training and instruction in precaution in connection with fire, evacuation of the ship and the ship's other emergency procedures. |          |                                        |
| Work task no. 1.0                                            | Safety Familiarization – 3rd ship |                        | Immediately after every signing on the trainee must, like any other who is occupied on board, receive training and instruction in precaution in connection with fire, evacuation of the ship and the ship's other emergency procedures. |          |                                        |
| Work task no. 1.0                                            | Safety Familiarization – 4th ship |                        | Immediately after every signing on the trainee must, like any other who is occupied on board, receive training and instruction in precaution in connection with fire, evacuation of the ship and the ship's other emergency procedures. |          |                                        |
| Work task no. 1.0                                            | Safety Familiarization – 5th ship |                        | Immediately after every signing on the trainee must, like any other who is occupied on board, receive training and instruction in precaution in connection with fire, evacuation of the ship and the ship's other emergency procedures. |          |                                        |

| Opgave nr.:                      | Emne:                                 | Mål<br>Side nr. | Uddannelsesmål:                                                                                                                                                                                                                                                               | Bemærkninger: | Uddannelsesofficer<br>Dato og underskrift |
|----------------------------------|---------------------------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------------------------------|
| <b>INDLEDENDE PRAKTIKPERIODE</b> |                                       |                 |                                                                                                                                                                                                                                                                               |               |                                           |
| Arbejdsopgave nr. 1.1            | Dagligdag om bord                     |                 | Formålet med opgaven er at give aspiranten indsigt i skibets dagligdag og jobbet som skibsofficer. Opgaven vil blive brugt i den efterfølgende teoretiske undervisning. Efter at have gennemført familiarisation, skal aspiranten beskrive hverdagen om bord. (Se spørgsmål). |               |                                           |
| Arbejdsopgave nr. 1.2            | Sikkerhed og arbejdsmiljø             |                 | Formålet med denne opgave er at give kadetten indsigt i, hvordan generel arbejdssikkerhed håndteres ombord.                                                                                                                                                                   |               |                                           |
| Arbejdsopgave nr. 1.3            | Vagttjeneste                          |                 | Formålet med opgaven er at give kadetten indsigt i skibets forskellige vagtrutiner under hensyntagende til skibets driftstilstande. Opgaven vil blive brugt i den efterfølgende teoretiske undervisning.                                                                      |               |                                           |
| Arbejdsopgave nr. 1.4            | Fortøjning og ankring samt dæksudstyr |                 | Formålet med opgaven er at give kadetten generel indsigt i skibets dæksudstyr samt hvorledes dette bliver brugt. Opgaven vil blive brugt i den efterfølgende teoretiske undervisning.                                                                                         |               |                                           |
| Arbejdsopgave nr. 1.5            | Lastning og Losning                   |                 | Formålet med opgaven er at give aspiranten indblik i generelle lasthåndteringsforhold om bord.                                                                                                                                                                                |               |                                           |
| Arbejdsopgave nr. 1.6            | Søkort og håndbøger                   |                 | Formålet er at give aspiranten indblik i praktisk anvendelse af navigationshjælpemidler.                                                                                                                                                                                      |               |                                           |

| Work task no.:                                             | Subject:                               | Objective<br>Side no.: | Training objective:                                                                                                                                                                                                                                                                                                | Remarks: | Training officer<br>Date and signature |
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| <b>SAFETY FAMILIARIZATION PRELIMINARY SEAGOING SERVICE</b> |                                        |                        |                                                                                                                                                                                                                                                                                                                    |          |                                        |
| Work task no. 1.1                                          | Everyday life on board                 |                        | The purpose of the assignment is to give the apprentice an insight in the everyday life on a ship and the job as a ship officer. The assignment will be used in the subsequent theoretical education. After having completed familiarisation the apprentice must make a description of the everyday life on board. |          |                                        |
| Work task no. 1.2                                          | Safety and work environment            |                        | The purpose of this assignment is to give the apprentice an insight in how the general work safety is handled on board.                                                                                                                                                                                            |          |                                        |
| Work task no. 1.3                                          | Watch duties                           |                        | The purpose of this assignment is to give the apprentice an insight in the different watch keeping routines taking the operational conditions of the ship into consideration. The assignment will be used in the subsequent theoretical education.                                                                 |          |                                        |
| Work task no. 1.4                                          | Mooring, anchoring and deck department |                        | The purpose of the assignment is to give the apprentice a general insight in the deck equipment of the ship as well as how to use it. The assignment will be used in the subsequent theoretical education.                                                                                                         |          |                                        |
| Work task no. 1.5                                          | Loading and discharging                |                        | The purpose of the assignment is to give the apprentice a general insight in the general conditions of dealing with cargo on board.                                                                                                                                                                                |          |                                        |

| Opgave nr.:                      | Emne:                                 | Mål<br>Side nr. | Uddannelsesmål:                                                                                                                                                                                                                                                                                                                    | Bemærkninger: | Uddannelsesofficer<br>Dato og underskrift |
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| <b>INDLEDENDE PRAKTIKPERIODE</b> |                                       |                 |                                                                                                                                                                                                                                                                                                                                    |               |                                           |
| Arbejdsopgave nr. 1.7            | Rørsystemer og tanke                  |                 | Formål med opgaven er at give aspiranten indsigt i hvorledes hjælpe/service systemerne indvirker på skibets drift, under hensyntagen til skibs forskellige driftssituationer. Opgaven løses som delopgaver, der godkendes hver for sig.                                                                                            |               |                                           |
| Arbejdsopgave nr. 1.8            | Elforsynings og hovedfordelings anlæg |                 | <ul style="list-style-type: none"> <li>• Hvilke maskiner kan generere strøm ombord?</li> <li>• Nævn eksempler på hvilke spændingsniveauer der anvendes ombord og til hvad?</li> <li>• Beskriv hvilke komponenter strømmen gennemløber fra en generator til skibets lanterner, samt hvordan disse lanterner nødforsynes.</li> </ul> |               |                                           |
| Arbejdsopgave nr. 1.9            | Maskinanlæg                           |                 | Formålet med opgaven er at give aspiranten indsigt i hvorledes skibet drives frem og manøvreres med udgangspunkt i det ombordværende maskineri. Opgaven vil blive brugt i den efterfølgende teoretiske undervisning.                                                                                                               |               |                                           |

| Work task no.:                                             | Subject:                               | Objective<br>Side no.: | Training objective:                                                                                                                                                                                                                                                                                                                        | Remarks: | Training officer<br>Date and signature |
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| <b>SAFETY FAMILIARIZATION PRELIMINARY SEAGOING SERVICE</b> |                                        |                        |                                                                                                                                                                                                                                                                                                                                            |          |                                        |
| Work task no. 1.6                                          | Charts and handbooks                   |                        | The purpose of this assignment is to give the apprentice an insight in the practical use of navigational aids.                                                                                                                                                                                                                             |          |                                        |
| Work task no. 1.7                                          | Piping arrangements and tanks          |                        | The purpose of the assignment is to give the apprentice an insight in how the help/service systems influence the operation of the ship taking the different situations into consideration. The assignment is parted into seven minor assignments which will be approved separately.                                                        |          |                                        |
| Work task no. 1.8                                          | Electrical supply and main switchboard |                        | <ul style="list-style-type: none"> <li>• Which machines generate power on board?</li> <li>• Name some examples of different levels of voltage used on board and for what?</li> <li>• Describe which components the power runs through from a generator to the lanterns of the ship and how these lanterns get emergency supply.</li> </ul> |          |                                        |
| Work task no. 1.9                                          | Machinery                              |                        | The purpose of the assignment is to give the apprentice an insight in how the ship is propelled and manoeuvred starting in the machinery on board. The assignment will be used in the subsequent theoretical education.                                                                                                                    |          |                                        |