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| http://www.yildiz.edu.tr/images/images/Yildiz_Logo_Ing.jpg | **YILDIZ TECHNICAL UNIVERSITY** | Açıklama: YTUGIDF_logo.png |
| **NAVAL ARCHITECTURE AND MARITIME FACULTY** | | |

**MARINE ENGINEERING DEPARTMENT**

**SEA TRAINING RECORD BOOK**

YTU Naval Architecture and Maritime Faculty-34349, Beşiktaş, İstanbul, TURKEY

|  |  |
| --- | --- |
| **Name Surname:** |  |
| **Date:** |  |

**Introduction**

Long Term Sea Training Program is designed to develop an Engineering Trainee's knowledge on the job training taking into account the following considerations:

1. Gain experience in relevant aspects of shipboard activities as they occur on board the ship or ships on which the cadet is sailing;
2. Test and compare the knowledge with the daily practice on board;
3. Consolidate and expand practical and theoretical knowledge;
4. Build a practical basis to achieve the standards of competence in accordance with table A-III/1 of the STCW Code;
5. Build a practical basis to achieve the standards of competence in accordance with regulation VIII/2 and the corresponding sections of Parts A and B of the STCW Code;
6. Prepare for a higher professional position on board.

**Objective**

1. The Trainee will acquire basic engineering skills and a practical awareness of the need to follow safe working practices. They will also be able to keep an engineering watch safely, in accordance with the relevant regulations and recommendations.
2. The aim of the training record book is three fold, namely:
   1. Directing the practical training, thus the trainee is guided as to the objectives of the practical training period.
   2. Giving guidance to the engineer officers regarding the development of the practical training to enable them to judge the progress and, if necessary, to make adjustments; and
   3. Providing sign off space so that the required training can be proved and documented.

**General Procedures**

Procedures of sea training and filling the sea training record book **(YTÜ-GİDF DSED)**;

1. **“Staj Yeri Tanıtım Formu” (STF-1)** should be filled by authorized persons of company. Related section of sea training record book cover and trainee information pages is filled and approved by head of department. Then Sea training record book can be received.
2. Training done in Turkish flagged vessels should be delivered **“Zorunlu Staj Formu** (SGK), a copy of T.C. identity card and training calendar to head of department for compulsory health insurance.
3. All jobs defined in Training Plan must be recorded to Sea training record book with handwriting in English language. Other Systems of ship excluded training plan must be recorded and delivered with Sea training record book.
4. Ship service schedule, Information of registry of ship and all pages of sea training record book must be signed and stamped by Chief Engineer.
5. If Training period is completed more than one ship, Ship service schedule and information of registry of ship pages must be filled.
6. If Training period is completed more than one shipping company, new company information must be filled in Trainee information page and approved by Head of Department.
7. In case of filled Training book is insufficient, Extra documents’ page must be delivered in a folder.
8. When Training book is completed, Training Evaluation document **(STB-1)** is filled and approved by Chief Engineer. This Document must be delivered in a sealed envelope to Head of Department.
9. Sea training book and related documents should be delivered as hard copy and soft (Scanned Format) copy
10. Certificate of service (With company stamp for Turkish flagged vessels - with contract for foreign flagged vessels) and record of country check in-out must be delivered to Head of Department. Record of country check in-out can be received from Passport office of Police Departments.

**Admission Criteria for Sea Training**

Trainees are required to graduate for following courses prior to initiate their sea training programme:

1. Introduction to Basics of Maritime
2. Introduction to Marine Engines
3. Maritime Safety I
4. Mechanical Workshop
5. Maritime Safety II
6. Marine Electrotechnics
7. Maritime Safety III
8. Marine Auxiliary Machinery
9. Marine Diesel Engines
10. Operation & Maintenance of Marine Engines I
11. Engine Room Simulator I

Each Trainee shall apply the student Administration Service for the proof and submission of their graduation marks from the above courses to the Marine Engineering Department Secretary.

**Trainee Information**

Photography of trainee (Approved by head of the department)

|  |  |
| --- | --- |
| Name - Surname: |  |
| Date of Birth: |  |
| T.C. Identity Num.: |  |
| Seafarer’s registry Num: |  |
| Gsm No: |  |
| E-mail: |  |
| Address: |  |

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| --- | --- |
| **Company Name:** | **Company Address:** |
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| **Head of Department Approval** |  |
| **Signature -Stamp** |  |

**Ship Service Schedule**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Ship  Reference  No | Name of Ship  Flag  Registration No  Port of Registration | Service Time of Trainee | | | | Name-Surname of Master,  Registration No  Signature  Ship Stamp |
| Date | | Service Time | |
| Sign on | Sign off | Month | Day |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

| **Ship Registry Information** | **Ship Reference 3** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Ship Reference 2** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Ship Reference1** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Ship Information** | Ship Reference No (IMO No) | Name of Ship | Port of registry | Gross tonnage - Net tonnage- Deadweight tonnage | Loaded Displacement | Cargo type and capacity | Length overall (m) | Width (m) | Depth (m) | Load draught – Summer (m) | Summer freeboard (m) | Speed of service (knot) | Emergency equipment No | Number of life boats and life rafts | Number of fire pump and capacity | Firefighting Equipment – Others | Call sign |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Ship Registry Information (continue)** | **Ship Reference 3** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Ship Reference 2** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Ship Reference 1** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Ship Information (continue)** | Model and Type of Engine | The number of the cylinder and diameter (mm) | Revolutions per Minute (RPM)- Service Revolutions per Minute (RPM) | Fuel type and viscosity | Daily fuel consumption - Specific fuel consumption (kg/kWh) | Fuel Capacity – Bunker | If any, Reduction Type | Shaft Power (kW) | Propeller Type -number- diameter and revolutions per minute | Model and Type of Turbocharger | Model and Type of Generator | Model and Type of boiler | Model and Type of Deck Crane and Windlass | **Approval of the Chief Engineer** | **Approval of the Captain** |

**Training Plan**

|  | **CHECKLIST** |  | |
| --- | --- | --- | --- |
| Yes | No |
| **A** | **Introduction of the ship and general information** |  |  |
| **1** | **Some information about ship’s operation and personnel management** |  |  |
| 1.1- Observation of deck and engine log-book |  |  |
| 1.2- Observation of ISM operations |  |  |
| 1.3- Observation of personnel, ship safety, drills and other training |  |  |
| **2** | **Observation of engine room** |  |  |
| 2.1- Observation of engine log-book and watch report. |  |  |
| * Explanation of watch-keeping scheme |  |  |
| * Comprehension of procedure of handing and taking over the watch |  |  |
| * Short information about the engine log-book (Data, Procedures of Data records etc.) |  |  |
| * Comprehension of duties and responsibilities during watch-keeping period |  |  |
| 2.2-Intoduction of Engine control room and work done (Examination of the Engines manuals) |  |  |
| * Introduction of equipments placed in Engine control room |  |  |
| * Statement of maneuver operations in control room |  |  |
| * Statement of sailing operations in control room |  |  |
| 2.3- Examination of the work done in workshop |  |  |
| * Introduction of equipments in workshop |  |  |
| * Improvement of ability to use equipments in workshop |  |  |
| * Comprehension of safety precautions in workshop |  |  |
| 2.4- Introduction of spare part, paints, O2 and Acetylene equipments, Fire extinguisher and firefighting equipments, Stores, Emergency Generator Room, Emergency fire pump and Compressor room |  |  |
| * Observation of spare part rooms |  |  |
| * Comprehension of Safety precaution about dangerous materials (Paints, O2 and Acetylene equipments etc.) |  |  |
| 2.5-Study of steering gear room |  |  |
| * Drawing of steering gear room plan |  |  |
| * Comprehension and explanation of emergency control of steering gear |  |  |
| **3** | **Engine room and general arrangement** |  |  |
| * Place of main engine |  |  |
| * Auxiliary engines |  |  |
| * Boiler room |  |  |
| * Steering gear room |  |  |
| * Place of Emergency fire pump |  |  |
| * CO2 room |  |  |
| * Engine control room |  |  |
| **4** | **Type of main engine, construction and operation properties** |  |  |
| * Information of main engine instruction manuals |  |  |
| * Observation of Main engine properties (Power, Engine speed, Number of cylinders) |  |  |
| * Drawing of lubrication oil line of main engine and description of components |  |  |
| * Explanation of preparation of main engine for operation |  |  |
| * Explanation of controls during sailing and watches |  |  |
| * Explanation of regular operation of main engine turbocharger and blower during sailing |  |  |
| * Examination of main engine cylinder indicator diagrams and a sample of indicator diagram study performed by trainee. |  |  |
| * Description of indicator device |  |  |
| * Explanation of high pressure fuel pump index adjustment (Why and How? |  |  |
| * Explanation of maintenance procedure for main engine |  |  |
| * Procedure and application of crankshaft deflection |  |  |
| * Explanation of main engine lubricating oil analyzes |  |  |
| * Explanation of main engine valve adjustment procedure and valve clearance values |  |  |
| * Comprehension of Equipment information using during maintenance period of main engine from instruction manuals |  |  |
| * Systems placed between main engine and propeller |  |  |
| * Introduction of Main Engine Governor |  |  |
| * Introduction of hydraulic and pneumatic equipments of main engine |  |  |
| * Explanation of maintenance procedure of piston |  |  |
| **5** | **Investigation of construction and operation of auxiliary engines** |  |  |
| 5.1-Generators |  |  |
| * Description of fuel lines |  |  |
| * Description of lubricating oil line |  |  |
| * Description of cooling water line |  |  |
| 5.2-Boiler |  |  |
| * Starting and stopping operations of Steam boiler |  |  |
| * Description of exhaust gas boiler line and operating conditions |  |  |
| * Description of soot removing application |  |  |
| * Chemical information using for boiler water tests and description of water tests |  |  |
| * Description of operation about boiler in case of funnel fire |  |  |
| * Description of Auxiliary boiler and operation procedure |  |  |
| 5.3-Seperators |  |  |
| * Description of separators in engine room |  |  |
| * Starting-stopping procedure of fuel separators |  |  |
| * Explanation of working principle of fuel/oil separators |  |  |
| * Description of Separator line and components |  |  |
| * Explanation of Separator faults and troubleshooting methods |  |  |
| * Selection of gravity disc |  |  |
| * Maintenance procedure |  |  |
| 5.4-Fresh Water Generators |  |  |
| * Starting-stopping procedure of Evaporator |  |  |
| * Evaporator line and components |  |  |
| * Description of Evaporator line and function of components |  |  |
| 5.5-Coolers and heaters |  |  |
| * Description of coolers in engine room and drawings |  |  |
| * Description of heaters in engine room and drawings |  |  |
| * Description of Cooler leakage test procedure |  |  |
| * Maintenance procedure of coolers |  |  |
| 5.6-Incinerator |  |  |
| * Introduction and operation of incinerators |  |  |
| * Maintenance procedure of incinerators |  |  |
| 5.7-Filters |  |  |
| * Type of filters |  |  |
| * Maintenance procedure of filters |  |  |
| 5.8-Pumps |  |  |
| * Introduction of pumps on board |  |  |
| * Definition of pumps running during voyage and port operations |  |  |
| * Description of General fire pumps and line |  |  |
| * Introduction of emergency fire pump |  |  |
| * Description of Emergency fire pump operation procedure |  |  |
| 5.9- Compressors and other auxiliaries |  |  |
| * Definition of main and auxiliary compressors on board |  |  |
| * Description of Maintenance procedure of compressors |  |  |
| * Description of Operation procedure of compressors |  |  |
| * Description of compressed air line and drawings |  |  |
| * Maintenance and starting-stopping procedures of refrigerating compressor |  |  |
| * Description of Refrigerant adding method to refrigerating system |  |  |
| * Description of refrigerating system line and working principle |  |  |
| **6** | **Investigation and drawing of main engine line and auxiliary engine line** |  |  |
| 6.1-Fuel system |  |  |
| * Drawing of all the fuel lines |  |  |
| * Description of Bunkering operations |  |  |
| * Description of Sampling operations during bunkering |  |  |
| * Chemicals information using for fuels |  |  |
| * Description of Fuel transfer operations |  |  |
| * Description of change over procedure from HFO to MDO during maneuvering |  |  |
| * Definition of quick closing valves |  |  |
| * Description of Sounding and calculating of fuel tanks |  |  |
| * Observation of fuel line for safety |  |  |
| * Description of Safety procedures of bunkering operations |  |  |
| 6.2- Cooling water system |  |  |
| * Drawing of main engine fresh water line |  |  |
| * Description of LT and HT cooling water system |  |  |
| 6.3- Heating system |  |  |
| * Description of heating system of main engine at port operations |  |  |
| * Drawing of heating line |  |  |
| 6.4- Exhaust Lines |  |  |
| * Operations for main engine and auxiliary engine exhaust gas systems |  |  |
| * Description of waste heat recovery system |  |  |
| 6.5- Lubricating oil lines |  |  |
| * Definition of oil types using on board |  |  |
| * Description of lubricating oil systems |  |  |
| * Description of oil separating operations |  |  |
| * Description of Lubricating oil operations of main and auxiliary engines |  |  |
| * Description of Lubricating oil test and equipments |  |  |
| 6.6- Hydraulic Systems |  |  |
| * Introduction of hydraulic systems |  |  |
| * Maintenance procedure of hydraulic systems |  |  |
| * Information about hydraulic systems of hatches |  |  |
| **7** | **Investigation and maintenance of deck machinery** |  |  |
| 7.1-Construction, operation, needed power calculation |  |  |
| 7.2-Cranes |  |  |
| 7.3-Windlass |  |  |
| 7.4-Bow thrusters |  |  |
| **8** | **Investigation of propulsion system** |  |  |
| * Propeller technical information |  |  |
| * Description of CPP (Controllable Pitch Propeller) |  |  |
| Information of Bow-Thruster operations |  |  |
| **9** | **Others** |  |  |
| 9.1- Fire extinguishing system |  |  |
| * Description of fire extinguishing system, operation and maintenance procedures |  |  |
| * Description of Emergency escape route |  |  |
| * Drawing of fire plans |  |  |
| * Type of portable fire extinguisher |  |  |
| * Description of place of master boxes on fire plan |  |  |
| * Explanation of differences between emergency fire pump and general fire pump and definition of their places on fire plan |  |  |
| 9.2- Fresh Water Line |  |  |
| * Supplying of fresh water |  |  |
| * Drawing of fresh water line |  |  |
| 9.3- Black Water Line (Sewage Unit) |  |  |
| * Explanation of Sewage Unit |  |  |
| * Drawing of Black water line |  |  |
| 9.4- Bilge Line |  |  |
| * Drawing of bilge line |  |  |
| * Description of Bilge separator operation procedure |  |  |
| * Bilge separator test procedure |  |  |
| * Preparations and precautions of bilge line before port arrival |  |  |
| * Information about bilge pump |  |  |
| **10** | **Tanker, Container, Ro-Ro etc. Ships, if any** |  |  |
| * Operation and maintenance of steam turbines |  |  |
| * Operation and maintenance of other boilers |  |  |
| * Other Operations on Container Ships |  |  |
| * Other Operations on Ro-Ro Ships |  |  |
| * Other Operations on Cruise Ships |  |  |
| **11** | **Deck Operations** |  |  |
| * Arrival, departure and maneuvering operations on bridge |  |  |
| * Deck department Operations at sea |  |  |
| * Deck department Operations on ports |  |  |
| * Duty’s of chief officer |  |  |
| * Duty’s of second and third officers |  |  |
| **B** | **Works Done by Trainee During Practical Education** |  |  |
|  | 1- Description of watch-keeping procedures, reports and engine log-book filling methods |  |  |
|  | 2- Description of Arrival, Departure and Maneuvering procedure |  |  |
|  | 3- Description of Maintenance procedure in engine room (Main engine and Auxiliary engine) |  |  |
|  | 4- Description of Generators and boiler operation procedure, Electrical maintenance procedure , Jobs in workshop, Spare parts and Chemical Tests |  |  |
|  | 5- Definition of work done at port, drilling, investigation of deck machinery and other works |  |  |