

Record of Assessment

for

Chief Engineer Officer and Second Engineer Officer
on Ships Powered by Main Propulsion Machinery of
750 kW / 1,000 HP or More and Less Than
3,000 kW / 4,000 HP Propulsion Power or More
(Management Level)

For: _____
Print Name of Candidate *Candidate's Signature* *Candidate's Mariner Reference No.*

RECORD OF ASSESSMENT

Chief Engineer Officer and Second Engineer Officer on Vessels Powered by Main Propulsion Machinery of 750 kW/1,000 Hp or More and Less Than 3,000 kW/4,000 Hp (Management Level)

NOTE TO QUALIFIED ASSESSOR(S): In performing your function as a qualified assessor, you may use your initials only below to indicate that you have personally witnessed the demonstration of skill or ability by the person being assessed. The Assessment Guidelines in Enclosure (2) will provide satisfactory evidence of meeting the standard of competence specified in Section A-III/2 of the STCW Code. The use of these Assessment Guidelines is not mandatory and alternative means of having achieved the standards of competence in the STCW Code will be considered as described in paragraph 6 of this NVIC. In accordance with 46 CFR 11.301(a)(1)(i), alternative Assessment Guidelines must be approved by the National Maritime Center before use.

STCW Competence	Knowledge, Understanding, and Proficiency	Task No.	Task	Assessor's Initials	Date
Manage the operation of propulsion plant machinery	Design features, and operative mechanism of the following machinery and associated auxiliaries: <ul style="list-style-type: none"> • Marine Diesel Engine Propulsion Plant 	1.1.A <i>Motor</i>	Direct that the engineering plant be prepared for service.		
		1.1.B <i>Motor</i>	Direct that the engineering plant be operated in maneuvering mode.		
		1.1.C <i>Motor</i>	Direct that the engineering plant be operated at full sea speed.		
		1.1.D <i>Motor</i>	Direct that the engineering plant be prepared for shutdown and secured.		
	Design features, and operative mechanism of the following machinery and associated auxiliaries: <ul style="list-style-type: none"> • Marine Steam Propulsion Plant 	1.2.A <i>Steam</i>	Direct that the engineering plant be prepared for service.		
		1.2.B <i>Steam</i>	Direct that the engineering plant be operated in maneuvering mode.		
		1.2.C <i>Steam</i>	Direct that the engineering plant be operated at full sea speed.		
		1.2.D <i>Steam</i>	Direct that the engineering plant be prepared for shutdown and secured.		

Notes:

- All* The assessment is required for all propulsion modes.
- Motor* The assessment is required for an endorsement valid for motor propelled vessels.
- Steam* The assessment is required for an endorsement valid for steam propelled vessels.
- GT* The assessment is required for an endorsement valid for gas turbine propelled vessels.
- Course* The assessment is satisfied by completion of an approved or accepted course. The mariner's course completion certificate will be sufficient documentation of completion of the assessment.

RECORD OF ASSESSMENT

Chief Engineer Officer and Second Engineer Officer on Ships Powered by Main Propulsion Machinery of 3,000 kW / 4,000 HP Propulsion Power or More (Management Level)

STCW Competence	Knowledge, Understanding, and Proficiency	Task No.	Task	Assessor's Initials	Date
Manage the operation of propulsion plant machinery	Design features, and operative mechanism of the following machinery and associated auxiliaries: <ul style="list-style-type: none"> Gas Turbine Propulsion Plant 	1.3.A <i>GT</i>	Direct that the engineering plant be prepared for service.		
		1.3.B <i>GT</i>	Direct that the engineering plant be operated in maneuvering mode.		
		1.3.C <i>GT</i>	Direct that the engineering plant be operated at full sea speed.		
		1.3.D <i>GT</i>	Direct that the engineering plant be prepared for shutdown and secured.		
Plan and schedule operations	Thermodynamics, heat transmission, mechanics, hydro-mechanics, propulsive devices, heat cycle, refrigeration cycle, properties of lubes/fuels, technology of materials, Naval architecture, ship construction, and damage control.	2.1.A <i>All</i>	Plan and prepare operations suited to the design parameters of the power installation and voyage requirements.		
Operation, surveillance, performance assessment and maintaining safety of propulsion plant and auxiliary machinery	Start up and shut down main propulsion and auxiliary machinery including associated systems including operating limits efficient operation, surveillance, performance assessment and maintaining safety as well as automatic controls.	3.1.A <i>Motor</i>	Measure and calculate a motor propulsion plant load and head distribution.		
		3.2.A <i>Steam</i>	Measure and calculate a steam propulsion plant load and head distribution.		
		3.3.A <i>GT</i>	Measure and calculate a gas turbine propulsion plant load and head distribution.		
	Functions and mechanism of automatic control for auxiliary machinery	3.4.A <i>All</i>	Measure and calculate auxiliary plant load and heat distribution.		
		3.5.A <i>All</i>	Measure and calculate hotel plant load and heat distribution.		

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STCW Competence	Knowledge, Understanding, and Proficiency	Task No.	Task	Assessor's Initials	Date
Manage fuel, lubrication and ballast operations	Operation and maintenance of machinery, including pumps and piping systems.	4.1.A <i>All</i>	Manage and direct the transfer of fuels, liquid lubricants in bulk and bilge and ballast water.		
Manage the operation of electrical, electronic and control equipment	Marine electro-technology, electronics, power electronics, automatic control engineering and safety devices. Design features and system configurations of automatic control equipment and safety devices.	5.1.A <i>Motor</i>	Direct the operation of electrical and electronic equipment and systems relative to a diesel propulsion plant.		
		5.1.B <i>Steam</i>	Direct the operation of electrical and electronic equipment and systems relative to a steam propulsion plant.		
		5.1.C <i>GT</i>	Direct the operation of electrical and electronic equipment and systems relative to a gas turbine propulsion plant.		
		5.1.D <i>All</i>	Direct the operation of electrical and electronic equipment and systems relative to power generation.		
		5.1.E <i>All</i>	Direct the operation of electrical and electronic equipment and systems relative to electro-hydraulic and electro-pneumatic control systems.		
Manage troubleshooting, restoration of electrical and electronic control equipment to operating condition	Troubleshooting of electrical and electronic control equipment Function test of electrical, electronic control equipment and safety devices Troubleshooting of monitoring systems Software version control	6.1.A <i>All</i>	Direct that personnel demonstrate safe working practices relative to shipboard electrical systems.		

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STCW Competence	Knowledge, Understanding, and Proficiency	Task No.	Task	Assessor's Initials	Date
Manage safe and effective maintenance and repair procedures	Management techniques of maintenance and repair procedures related to main propulsion and auxiliary / ancillary machinery and equipment	7.1.A <i>Motor</i>	Demonstrate the management of maintenance procedures by directing that motor engineering plant repairs are performed properly.		
		7.1.B <i>Steam</i>	Demonstrate the management of maintenance procedures by directing that steam engineering plant repairs are performed properly.		
		7.1.C <i>GT</i>	Demonstrate the management of maintenance procedures by directing that gas turbine engineering plant repairs are performed properly.		
	Planning maintenance, and repairs including statutory and class verifications	7.1.D <i>All</i>	Demonstrate the procedures for planning scheduled maintenance and corrective repairs while utilizing all available assets.		
Detect and identify the cause of machinery malfunctions and correct faults	Detection of machinery malfunction, location of faults and action to prevent damage Inspection and adjustment of equipment Non-destructive examination	8.1.A <i>All</i>	Demonstrate methods to detect the abnormal operation of plant machinery, causes of the abnormalities and the actions taken to prevent damage.		
Ensure Safe Working Practices	Safe Working Practices	9.1.A <i>All</i>	Oversee the use of safe working practices in all phases of maintenance, troubleshooting, and repair scenarios.		

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STCW Competence	Knowledge, Understanding, and Proficiency	Task No.	Task	Assessor's Initials	Date
Control trim, stability and stress	Understanding of fundamental principles of ship construction and the theories and factors affecting trim and stability and measures necessary to preserve trim and stability; Knowledge of the effect on trim and stability of a ship in the event of damage to, and consequent flooding of a compartment and countermeasures to be taken; Knowledge of IMO recommendations concerning ship's stability.	10.1.A <i>All</i>	Ensure that stability and stress conditions are maintained within safety limits at all times.		
Monitor and control compliance with legislative requirements and measures to ensure safety of life at sea, security and protection of the marine environment	Knowledge of international maritime law embodied in international agreements and conventions: Responsibilities under the relevant requirements of international agreements and conventions Knowledge of National legislation for implementing international agreements and conventions	11.1.A <i>All</i>	Describe the procedures for monitoring operations and maintenance to comply with legislative requirements; that potential non-compliance is promptly and fully identified; and that requirements for renewal and extension of certificates are acted upon to ensure continued validity of survey items and equipment.		

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STCW Competence	Knowledge, Understanding, and Proficiency	Task No.	Task	Assessor's Initials	Date
Maintain safety and security of the vessel, crew and passengers and the operational condition of lifesaving, firefighting and other safety systems	<p>A thorough knowledge of life-saving appliance regulations (International Convention for the Safety of Life at Sea)</p> <p>Organization of fire and abandon ship drills; Maintenance of operational condition of life-saving, firefighting and other safety systems</p> <p>Actions to be taken to protect and safeguard all persons on board in emergencies</p> <p>Actions to limit damage and save the ship following fire, explosion, collision or grounding.</p>	<p>12.1.A <i>All</i></p>	Describe the procedures for monitoring fire detection and safety systems and ensures that all alarms are detected promptly and acted upon in accordance with established emergency procedures.		
Develop emergency and damage control plans and handle emergency situations	Ship construction, including damage control	13.1.A <i>All</i>	Develop a Damage Control Plan.		
	Methods and aids for fire prevention, detection and extinction	13.1.B <i>All</i>	The candidate successfully completes an approved training course in Advanced Firefighting.	COURSE	
	Functions and use of lifesaving appliances	13.1.C <i>All</i>	Proficiency in Survival Craft.	COURSE	
Use leadership and managerial skills	Knowledge of shipboard personnel management and training.	14.1.A <i>All</i>	Leadership and Managerial Skills.	COURSE	

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ASSESSOR AND VESSEL INFORMATION

Qualified Assessors witnessing the successful demonstrations noted in this record should provide the information below relative to their service with the candidate, including their Mariner Reference Number.

Vessel Name and Propulsion Mode	Engine Power (HP or kW)	Dates of Service		Name of Assessor	Signature of Assessor	Sample Assessor Initials	Assessor's Mariner Reference No.	Assessor's Shipboard Position
		From	To					
M/V Onderbroek (Motor)	2,345 HP	7/7/2014	11/14/2014	Robert K. Wilson	<i>Robert K. Wilson</i>	<i>RKW</i>	1234567	Chief Engineer

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Vessel Name and Propulsion Mode	Engine Power (HP or kW)	Dates of Service		Name of Assessor	Signature of Assessor	Sample Assessor Initials	Assessor's Mariner Reference No.	Assessor's Shipboard Position
		From	To					

 Print Name of Candidate

 Candidate's Mariner Reference No.