

Part E

Course Assessment

■ Introduction

Assessment is concerned with making of proper judgment in the progress and development of the trainees' learning skills and attitudes. This means assessment is placing value or worth to behavior processes of doing things appropriate in a given situation on board. To be effective, however, the assessment requires that judgments be based on appropriate and relevant data. This is why the learning outcomes in Part C, are herein provided as the basis for the evaluation of trainees' progress, development and learning of this course.

■ Assessment Method

A written examination shall be administered in order to measure the acquired knowledge of the trainees. The examinations shall be administered at the end of training in which a passing mark is pre-requisite for the practical assessment.

To ensure representation of all topics covered in an objective type of test and to measure the desired level of thinking skills, the test items to be constructed shall be based on a Table of Specification (TOS). A sample TOS is provided with the number of test items indicated is to be used as a **GUIDE ONLY**.

On the other hand, a practical assessment shall be conducted to measure trainees' ability to demonstrate the following skills:

- plan and schedule operation; and
- manage the operation, surveillance, performance assessment and maintaining safety of propulsion plant and auxiliary machinery.

Both methods of assessment used to measure the knowledge, skills and attitudes acquired by the trainees are reflected in the corresponding Assessment Plan. This document details the overall assessment strategy which includes the following information:

- when the assessment is to take place;
- what assessment methods are to be employed;
- the marks/weighting for each assessment;

- who is responsible for conducting the assessment;
- what resources are needed; and
- conditions under which assessments are to be conducted.

A sample of an Assessment Plan is provided with the number of test items and numbers of exercises for practical assessment indicated are to be used as a **GUIDE ONLY**.

TABLE OF SPECIFICATION (TOS)

Contents	Time Allotment	% of Teaching Time	Thinking Skills						No. of Test Items
			Remember	Understand	Apply	Analyze	Evaluate	Create	
Course Introduction	0.5 hr	1.7							
1. Design features of marine steam turbine	0.5 hr	1.7		2					2
2. Operative mechanism of marine turbine	1.0 hr	3.3		2					2
3. Thermodynamics and heat transmission in marine steam turbine propulsion plant	1.5 hrs	5.0		1					1
4. Mechanics and hydromechanics of steam	1.0 hr	3.3		1					1
5. Propulsive characteristic of marine steam turbine, including speed, output and fuel consumption	1.5 hrs	5.0		1		1			2
6. Heat cycle, thermal efficiency and heat balance of marine steam turbine propulsion plant	1.5 hrs	5.0		2					2

Contents	Time Allotment	% of Teaching Time	Thinking Skills						No. of Test Items
			Remember	Understand	Apply	Analyze	Evaluate	Create	
7. Operating limits of marine steam turbine propulsion plant	2.0 hrs	6.7		1		1			2
8. Function and mechanism of automatic control for marine steam turbine propulsion plant	1.5 hrs	5.0		2					2
9. Operation of marine steam turbine propulsion plant	9.5 hrs	31.7		6	2				8
10. Plant up and Plant down of main propulsion and auxiliary machinery	8.5 hrs	28.3		4	2				6
11. Surveillance, performance assessment and maintaining safety of marine steam turbine propulsion plant	1.0 hr	3.3		1		1			2
Total	30 hrs	100		23	4	3			30

ASSESSMENT PLAN

STCW Code: Section A-III/2		Table: Table A-III/2							
Approved Training Program: MARINE STEAM TURBINE		Instructor:		Date Prepared:					
Resources Needed		Assessor:		Approved by:					
Topics	Written Assessment				Practical Assessment				Grading Scheme
	No. of Test Items	Assessment Method	Assessment Period	Grading Scheme	Assessment Task				
					<ul style="list-style-type: none"> Check the operating limits of marine steam turbine propulsion plant during start up and warm up period Analyze the result form the checked parameters and take appropriate actions 	Operate the marine steam turbine for the following operations: <ul style="list-style-type: none"> Arrival Departure 	Perform plant up and plant down of main steam turbine propulsion plant	<ul style="list-style-type: none"> Conduct surveillance and performance assessment using the gathered data Analyze the result of surveillance and performance assessment conducted and take appropriate actions in accordance with technical specifications and agreed work plan 	
				Assessment Criteria					
Course Introduction	-	Multiple Choice Questions	Written exam is administered at the end of training period	Obtain at least 70% mark from written test.	Checks of pressures, temperatures and revolutions during the start-up and warm-up period are in accordance with technical specifications and agreed work plans	The methods of preparing for the startup and of making available fuels, lubricants, cooling water and air are the most appropriate	The methods of preparing for the startup and of making available fuels, lubricants, cooling water and air are the most appropriate	Surveillance and performance assessment of main propulsion plant and auxiliary systems is sufficient to maintain safe operating conditions	Successfully meeting all Assessment Criteria
1. Design features of marine steam turbine	2				The methods of preparing the shutdown and of supervising the cooling down of the engine are the most appropriate	The methods of preparing the shutdown and of supervising the cooling down of the engine are the most appropriate			
2. Operative mechanism of marine turbine	2				The methods of measuring the load capacity of the engines are in accordance with technical specifications	The methods of measuring the load capacity of the engines are in accordance with technical specifications			
3. Thermodynamics and heat transmission in marine steam turbine propulsion plant	1								
4. Mechanics and hydromechanics of steam	1					Performance is checked against			

STCW Code: Section A-III/2		Table: Table A-III/2							
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Resources Needed		Assessor:		Approved by:					
Topics	Written Assessment				Practical Assessment				Grading Scheme
	No. of Test Items	Assessment Method	Assessment Period	Grading Scheme	Assessment Task				
					<ul style="list-style-type: none"> Check the operating limits of marine steam turbine propulsion plant during start up and warm up period Analyze the result form the checked parameters and take appropriate actions 	Operate the marine steam turbine for the following operations: <ul style="list-style-type: none"> Arrival Departure 	Perform plant up and plant down of main steam turbine propulsion plant	<ul style="list-style-type: none"> Conduct surveillance and performance assessment using the gathered data Analyze the result of surveillance and performance assessment conducted and take appropriate actions in accordance with technical specifications and agreed work plan 	
					Assessment Criteria				
5. Propulsive characteristic of marine steam turbine, including speed, output and fuel consumption	2				Performance is checked against bridge orders Performance levels are in accordance with technical specifications	bridge orders Performance levels are in accordance with technical specifications			
6. Heat cycle, thermal efficiency and heat balance of marine steam turbine propulsion plant	2								
7. Operating limits of marine steam turbine propulsion plant	2								
8. Function and mechanism of automatic control for marine steam turbine propulsion plant	2								

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Resources Needed		Assessor:		Approved by:					
Topics	Written Assessment				Practical Assessment				Grading Scheme
	No. of Test Items	Assessment Method	Assessment Period	Grading Scheme	Assessment Task				
					<ul style="list-style-type: none"> Check the operating limits of marine steam turbine propulsion plant during start up and warm up period Analyze the result form the checked parameters and take appropriate actions 	Operate the marine steam turbine for the following operations: <ul style="list-style-type: none"> Arrival Departure 	Perform plant up and plant down of main steam turbine propulsion plant	<ul style="list-style-type: none"> Conduct surveillance and performance assessment using the gathered data Analyze the result of surveillance and performance assessment conducted and take appropriate actions in accordance with technical specifications and agreed work plan 	
					Assessment Criteria				
9. Operation of marine steam turbine propulsion plant	8								
10. Plant up and Plant down of main propulsion and auxiliary machinery	6								
11. Surveillance, performance assessment and maintaining safety of marine steam turbine propulsion plant	2								
Total	30								