



CLASSIFICATION STANDARD

**SHIP' S CREW**

**OPERATIONAL CATEGORY**

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## SHIPS' CREWS

### **OPERATIONAL CATEGORY**

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## CONTENTS

	Page
INTRODUCTION	1
CATEGORY DEFINITION	4
GROUP DEFINITION	5
SUB-GROUP DEFINITIONS	6
RATING SCALES	7
BENCH-MARK POSITION DESCRIPTION INDEX	
In Sub-group	23
In Ascending Order of Point Values	24

## INTRODUCTION

The classification standard for the Ships' Crews Group is a point-rating plan consisting of an introduction, definitions of the Operational Category, the occupational group and sub-groups, rating scales and bench-mark position descriptions.

Point rating is an analytical, quantitative method of determining the relative values of jobs. Point-rating plans define characteristics or factors common to the jobs being evaluated, define degrees of each factor and allocate point values to each degree. The total value determined for each job is the sum of the point values assigned by the raters.

All methods of job evaluation require the exercise of judgement and the orderly collection and analysis of information in order that consistent judgements can be made. The point-rating method facilitates rational discussion and resolution of differences in determining the relative values of jobs.

### Factors

The combined factors may not describe all aspects of jobs. They deal only with those characteristics that can be defined and distinguished and that are useful in determining the relative worth of jobs. six factors are used in this plan.

### Factor Weighting and Point Distribution

The weighting of each factor reflects its relative importance. Similarly, points are distributed to the factors or elements in an arithmetic progression.

### Rating Scales

In the rating plan the following factors, factor weights and point values are used.

Factor	Element	Percentage of Total Points	Point Minimum	Values Maximum
Comprehension and Judgement	-	25	50	250
Training and Experience	-	25	50	250
Effort	Mental	10	10	50
	Physical		10	50
Responsibility	Resources	10	10	50
	Safety of Others		10	50
Working Conditions	Environment	15	20	100
	Hazards		10	50
Supervision	Nature of Supervisory Responsibility	15	15	150
	Number of Employees Supervised			

Bench-mark Positions

Bench-mark position descriptions are used to exemplify degrees of factors. Each description consists of a brief summary, a list of the principal duties with the percentage of time devoted to each, and specifications describing the degree of each factor or element to which the position is rated. The bench-mark positions have been evaluated and the degree and point values assigned for each factor are shown in the specifications.

The rating scales identify the bench-mark position descriptions that exemplify each degree. These descriptions are an integral part of the point-rating plan and are used to ensure consistency in applying the rating scales.

Use of the Standard

There are six steps in the application of this classification standard.

1. The position description is studied to ensure understanding of the position as a whole. The relation of the position being rated to positions above and below it in the organization is also studied.
2. Allocation of the position to the category and the group is confirmed by reference to the definitions and the descriptions of inclusions and exclusions.
3. Tentative degrees of each factor or element in the position being rated are determined by comparison with degree definitions in the rating scales. Uniform application of degree definitions requires frequent reference to the description of factors and the notes to raters.
4. The description of the factor or element in each of the bench-mark positions exemplifying the degree tentatively established is compared with the description of the factor or element in the position being rated. Comparisons are also made with descriptions of the factor or element in bench-mark positions for the degrees above and below the one tentatively established.
5. The point values for all factors or elements are added to determine the tentative total point rating.
6. The position being rated is compared as a whole with positions to which similar total point values have been assigned, as a check on the validity of the total rating.

Determination of Levels

The ultimate objective of job evaluation is the determination of the relative values of jobs in each occupational group. Jobs that fall within a designated range of point values will be regarded as of equal difficulty and will be assigned to the same level.

LEVEL AND LEVEL BOUNDARIES			
Ships' Crews	SC	LEVEL	RANGE
- Deck Department	- (DED)	1	- 270
- Engine Room Department	- (ERD)	2	271 - 370
- Equipment Operation Department	- (EQO)	3	371 - 470
- Specialist Trades Department	- (SPT)	4	471 - 570
- Supply Department	- (STD)	5	571 - 670
		6	671 - 770
		7	771 - 870

## CATEGORY DEFINITION

Occupational categories were repealed by the Public Service Reform Act (PSRA), effective April 1, 1993. Therefore, the occupational category definitions have been deleted from the classification standards

GROUP DEFINITION

For occupational group allocation, it is recommended that you use [the Occupational Group Definition Maps](#), which provide the 1999 group definition and their corresponding inclusion and exclusion statements. The maps explicitly link the relevant parts of the overall 1999 occupational group definition to each classification standard.

## SUB-GROUP DEFINITIONS

1. Ships' Crew, Deck Department (DED)

The performance or supervision of a variety of duties in the deck department of ships and floating plant, such as standing watch, steering, stowing cargo, chipping and painting, rigging and winching, handling of pollution gear and equipment and cleaning up spills, streaming and retrieving scientific equipment/gear.

2. Ships' Crew, Engine Room Department (ERD)

The performance or supervision of a variety of duties in the engine room department of ships and floating plant, such as lubricating moving parts, dismantling and reassembling machinery, cleaning and painting.

3. Ships' Crew, Equipment Operation Department (EQO)

The operating and servicing of machinery such as derricks, cranes, and dredging equipment, the assembling of piping and rigging on board ships and floating plant.

4. Ships' Crew, Specialist Trades Department (SPT)

The performance or supervision of a skilled trade such as machinist, carpenter, or electrician. 5.

Ships' Crew, Supply Department (STD)

The performance or supervision of the receipt, storage and issue of supplies, maintenance of records, the preparation and serving of food and the provision of other personal services; the performance or supervision of duties relating to materiel management, materiel identification and ship's administration on board ships operating under an Integrated Logistics Support System.

RATING SCALES

SHIPS' CREWS GROUP

FACTOR WEIGHTS

COMPREHENSION AND JUDGEMENT	250
TRAINING AND EXPERIENCE	250
EFFORT	100
RESPONSIBILITY	100
WORKING CONDITIONS	150
SUPERVISION	150
	1,000

COMPREHENSION AND JUDGEMENT

This factor is used to measure the requirement to understand instructions and principles, and to make judgements.

Definition

"Relevant principles and methods" used in the Comprehension and Judgement factor refers to the general facts and rules governing the working of a machine or a system, or the properties of substances and materials, and the systematic and regular ways of achieving desired results.

Notes to Raters

In rating positions under the Comprehension and Judgement factor raters are to consider the understanding needed, the nature of the guidelines, instructions, principles and practices that govern the work, and the latitude allowed in their interpretation.

## RATING SCALE - COMPREHENSION AND JUDGEMENT

Nature of Comprehensive and Judgement and Degree	Points	Bench-mark Position Descriptions	Page
The work requires sufficient understanding to carry out one- or two-step instructions and allows little latitude for judgement.	1	Able Seaman/Woman Steward	1.1 12.1
The work requires sufficient understanding to carry out detailed written or oral instructions and occasionally allows some latitude for judgement.	2	Engine Room Rating Leading Seaman/Woman	4.1 3.1
The work requires sufficient understanding to work within established practices and instructions and allows some latitude for judgement in their application.	3	Engine Room Assistant Winch Operator	5.1  7.1
The work requires some understanding of relevant principles and methods and allows some latitude for judgement in interpreting instructions.	4	Blacksmith Boatswain Chief Cook Cook-Steward	8.1 2.1 10.1 11.1
The work requires a thorough understanding of relevant principles and methods and allows considerable latitude for judgement in interpreting instructions.	5	Electrician	9.1
The work requires a thorough understanding of a number of relevant principles and allows considerable latitude for judgement in solving practical problems.	6	Dredge Supervisor	6.1

TRAINING AND EXPERIENCE

This factor is used to measure the duration and kind of training and experience required to perform the duties of the position.

Notes to Raters

The training and experience required to learn the techniques and develop the skills needed to perform the duties of the position is acquired by one or more of the following means:

1. Education in a secondary or technical school, or vocational institute.
2. Apprentice training.
3. On-the-job training under the instruction of qualified workers.
4. Development of skills in related work.

The degrees of this factor that are assigned to the bench-mark positions have been established by the comparative ranking of key positions in the occupational group. The degree tentatively selected in rating a position is to be confirmed by direct comparison of the position being rated with the duties and specifications of the bench-mark positions.

The point values assigned to the degrees of this factor progress in accordance with the degree of importance attached to the vocational preparation required for the bench-mark positions.

## RATING SCALE - TRAINING AND EXPERIENCE

Degree	Points	Bench-mark Position Descriptions	Page
1	50	Steward	12.1
2	78	Able Seaman/Woman Engine Room Rating Winch Operator	1.1 4.1 7.1
3	106	Engine Room Assistant Leading Seaman/ Woman	5.1 3.1
4	134	Cook-Steward	11.1
5	163	Blacksmith Boatswain	8.1 2.1
6	192	Chief Cook	10.1
7	221	Electrician	9.1
8	250	Dredge Supervisor	6.1

EFFORT

This factor is used to measure the demands of the work in terms of the mental and physical effort required to perform the duties.

Notes to Raters

In rating positions under the Mental Effort element raters are to consider the fatigue caused by the attention and concentration required by the work.

In rating positions under the Physical Effort element raters are to consider the fatigue caused by the kind, frequency, intensity and duration of muscular exertion, the work positions, and the weight of objects handled.

RATING SCALE - EFFORT  
MENTAL EFFORT

Mental Effort and Degree	Points	Bench-mark Position Descriptions	Page
The work requires a normal level of attention or mental-sensory co-ordination, with no significant periods of concentration.	1	10  Steward	12.1
The work requires a moderate level of attention or mental-sensory co-ordination, with short periods of concentration.	2	23  Able Seaman/Woman Blacksmith Cook-Steward Engine Room Assistant Engine Room Rating Winch Operator	1.1 8.1 11.1 5.1 4.1 7.1
The work requires a high level of attention or mental-sensory co-ordination, with frequent short periods of concentration.	3	36  Chief Cook Electrician Leading Seaman/Woman	10.1 9.1 3.1
The work requires a high level of attention or precise mental-sensory co-ordination, with sustained periods of concentration.	4	50  Boatswain Dredge Supervisor	2.1 6.1

RATING SCALE - EFFORT  
PHYSICAL EFFORT

Physical Effort and Degree	Points	Bench-mark Position Descriptions	Page
The work requires little physical effort, such as intermittent standing, walking, or handling of light-weight objects. The duties occasionally require greater physical effort for short periods.	1 10	Steward	12.1
The work requires moderate physical effort, such as continual standing or walking where only limited periods of relief are possible, or continual handling of light-weight objects. The duties occasionally require greater physical effort for short periods.	2 23	Boatswain Chief Cook Cook-Steward Electrician Engine Room Assistant Engine Room Rating Leading Seaman/Woman	2.1 10.1 11.1 9.1 5.1 4.1 3.1
The work requires considerable physical effort, such as frequent climbing, working from ladders, handling of medium-weight objects, or working in a difficult position. The duties occasionally require greater physical effort for short periods.	3 36	Able Seaman/Woman Dredge Supervisor Winch Operator	1.1 6.1 7.1
The work requires great physical effort, such as frequent handling of heavy-weight objects in a difficult work position.	4 50	Blacksmith	8.1

RESPONSIBILITY

This factor is used to measure the responsibility the employee has for the use of resources and for the safety of others.

Definitions

"Responsibility for resources" refers to the responsibility for the proper care and effective use of such assets as equipment, material and structures.

"Responsibility for safety of others" refers to the responsibility for the exercise of care to prevent injury to other people.

Notes to Raters

In selecting a tentative rating for a position under this element the following characteristics of the work are to be considered:

1. The characteristics of the supplies, services or other resources for which the holder of the position is responsible.
2. The consequences of an error in the use of such resources, measured in terms of potential waste of materials, product or inventory, or physical damage to structures or equipment.

Raters should consider only the consequence of one reasonably probable and undetected error, and not the chances of an error occurring, or the consequence of an error that is only remotely possible.

The degrees of the Responsibility for Resources element that are assigned to the bench-mark positions have been established by the comparative ranking of key positions in the occupational group. The degree tentatively selected for a position is to be confirmed by direct comparison of the position being rated with the duties and specifications of the bench-mark positions.

## RATING SCALE - RESPONSIBILITY

## RESOURCES

Degree of Responsibility for Resources	Points		Bench-mark Position Descriptions	Page
Limited	1	10	Able Seaman/Woman Steward	1.1 12.1
Moderate	2	23	Blacksmith Boatswain Cook-Steward Engine Room Assistant Engine Room Rating Leading Seaman/Woman Winch Operator	8.1 2.1 11.1 5.1 4.1 3.1 7.1
Significant	3	36	Chief Cook Electrician	10.1 9.1
Major	4	50	Dredge Supervisor	6.1

rating scale - responsibility

SAFETY OF OTHERS

Responsibility for Safety of Others, and Degree	Points	Bench-mark Position Descriptions	Page
There is little possibility of injury to others. Work is performed in relative isolation.	1	Cook-Steward Engine Room Assistant Engine Room Rating Steward	11.1 5.1 4.1 12.1
Reasonable care is required to prevent injury to others.	2	Able Seaman/Woman Blacksmith Chief Cook Electrician Winch Operator	1.1 8.1 10.1 9.1 7.1
Constant care is required to prevent injury to others.	3	Boatswain  Dredge Supervisor Leading Seaman/Woman	2.1  6.1 3.1

## WORKING CONDITIONS

This factor is used to measure the disagreeable conditions of the work as indicated by the environment in which the duties are performed and the exposure to hazards.

Definitions

"Environment" refers to the disagreeable conditions under which the duties are performed such as:

- exposure to dust and dirt, or to extremes of heat, cold, obnoxious odours, weather, noise, wet or vibration,
- the required wearing of cumbersome protective clothing or equipment, and
- the absence from home port for extended periods.

"Hazards" refers to the frequency of the exposure to injury, although usual safety measures have been taken.

Notes to Ratters

In rating positions under the Environment element only those conditions that make the work disagreeable and that are of value in assessing relative differences between jobs in the group are to be considered. For example, ship motion can be a disagreeable condition, but since it applies to the group as a whole, it is not helpful in determining relative differences between positions. In using this element raters are to consider the severity and frequency of the exposure.

In rating positions under the Hazards element only the hazards that are probable are to be considered, and not those that are remotely possible. Ratters are to consider the frequency of, and the need for the exposure.

## RATING SCALE - WORKING CONDITIONS

ENVIRONMENT

Environment and Degree	Points	Bench-mark Position Descriptions	Page
Good working environment with few disagreeable conditions.	1 20		
Fair working environment, such as significant exposure to one disagreeable condition, or occasional exposure to either several disagreeable conditions or to one very disagreeable condition.	2 46	Able Seaman/Woman Boatswain Chief Cook Cook-Steward Leading Seaman/Woman Steward Winch Operator	1.1 2.1 10.1 11.1 3.1 12.1 7.1
Poor working environment, such as significant exposure to several disagreeable conditions or to one very disagreeable condition.	3 73	Dredge Supervisor Electrician Engine Room Assistant Engine Room Rating	6.1 9.1 5.1 4.1
Very poor working environment, such as constant exposure to several very disagreeable conditions.	4 100	Blacksmith	8.1

RATING SCALE - WORKING CONDITIONSHAZARDS

Frequency of Unavoidable Exposure to Hazards, and Degree		Points	Bench-mark Position Descriptions	Page
Negligible	1	10	Steward	12.1
Occasional	2	23	Able Weaman/Woman	1.1
			Boatswain	2.1
			Chief Cook	10.1
			Cook-Steward	11.1
			Dredge Supervisor	6.1
			Engine Room Assistant	5.1
			Engine Room Rating	4.1
			Leading Seaman/Woman	3.1
Winch Operator	7.1			
Frequent	3	36	Blacksmith	8.1
			Electrician	9.1
Continuous	4	50		

SUPERVISION

This factor is used to measure the continuing responsibility of the position for the work and guidance of employees in terms of the nature of the supervisory responsibility and the number of employees supervised.

Definitions

"Nature of supervisory responsibility" refers to the extent to which supervisory positions have such responsibilities as controlling the quality and quantity of work produced, assigning work, allocating staff, evaluating employee performance, training and disciplining staff, and making recommendations on the number of positions needed to perform the work.

"Number of employees supervised" refers to the total number of employees reporting directly or through subordinate supervisors to the supervisory position.

Notes to Ratters

In all positions there is some requirement for showing others how to perform tasks or duties; therefore, no position will be assigned less than 15 points (A1).

Occasional supervision, such as that performed during absences of the supervisor on annual or sick leave, is not to be rated.

For the purpose of this standard the number of employees supervised includes the total of the following:

1. The number of employees for whom the incumbent of the position has continuous responsibility.
2. The number of person-years of work performed by casual, part-time and seasonal employees who are reporting to the position.

In rating positions all the characteristics outlined for each degree of the Nature of Supervisory Responsibility element must be considered. Generally speaking, the criterion for the assignment of a position to a degree is that it must include most of the characteristics of the degree to which it is assigned.

The rating scale shows the point values assigned to five degrees of the Nature of Supervisory Responsibility element. These degrees, which are designated only as A, B, C, D and E on the scale, are defined in the following table:

Nature of Supervisory Responsibility,  
and Degree

Bench-mark Position Descriptions

Page

Occasionally show other employees how to perform tasks or duties.	A	Able Seaman/Woman Blacksmith Engine Room Assistant Engine Room Rating Steward Winch Operator	1.1 8.1 5.1 4.1 12.1 7.1
Assume limited supervisory responsibility such as assigning work and ensuring its satisfactory completion.	B	Dredge Supervisor Electrician Leading Seaman/Woman	6.1 9.1 3.1
Instruct employees in work methods and procedures; assign work; check completeness of work; advise on routine work problems.	C	Cook-Steward	11.1
Check work for conformance to prescribed standards; make short-term allocations of staff to cope with workload; provide information to supervisor on performance of employees in work group.	D	Boatswain Chief Cook	2.1 10.1
Establish priorities and determine the work schedule to be followed; allocate staff and establish standards of quality and quantity of work; review performance of subordinates and make formal recommendations for promotional action and for disciplinary action.	E		

RATING SCALE - SUPERVISION

Number of Employees Supervised, and Degree		Degree of Nature of Supervisory Responsibility				
		A	B	C	D	E
Any number of employees	1	15				
1 - 3	2		20	46	72	98
4 - 10	3		37	63	89	115
11 - 24	4		54	80	106	132
25 and over	5		72	98	124	150

BENCH-MARK POSITION DESCRIPTION INDEX

In Sub-group

SUB-GROUP	BENCH-MARK POSITION NO.	DESCRIPTIVE TITLE	TOTAL POINTS	PAGE
Deck Department	1	Able Seaman/Woman	311	1.1
	2	Boatswain	654	2.1
	3	Leading Seaman/Woman	417	3.1
Engine Room Department	4	Engine Room Rating	358	4.1
	5	Engine Room Assistant	426	5.1
Equipment Operation Department	6	Dredge Supervisor	819	6.1
	7	Winch Operator	404	7.1
Specialist Trades Department	8	Blacksmith	610	8.1
	9	Electrician	685	9.1
Supply Department	10	Chief Cook	628	10.1
	11	Cook-Steward	498	11.1
	12	Steward	211	12.1

BENCH-MARK POSITION DESCRIPTIONS  
In Ascending Order of Point Values

DESCRIPTIVE TITLE	BENCH-MARK POSITION NO.	TOTAL POINTS	PAGE
Steward	12	211	12.1
Able Seaman/Woman	1	311	1.1
Engine Room Rating	4	358	4.1
Winch Operator	7	404	7.1
Leading Seaman/Woman	3	417	3.1
Engine Room Assistant	5	426	5.1
Cook-Steward	11	498	11.1
Blacksmith	8	610	8.1
Chief Cook	10	628	10.1
Boatswain	2	654	2.1
Electrician	9	685	9.1
Dredge Supervisor	6	819	6.1

BENCH-MARK POSITION DESCRIPTIONS

SUB-GROUP: DECK DEPARTMENT (DED)

BENCH-MARK POSITION NO.	DESCRIPTIVE TITLE	PAGE
1	Able Seaman/Woman	1.1
2	Boatswain	2.1
3	Leading Seaman/Woman	3.1

## BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 1

Level: DED-02

Sub-group: Deck Department

Descriptive Title: Able Seaman/Woman

Point Rating: 311

Summary

Reporting to a deck department officer or boatswain, stands regular watch at sea, steering ship as directed and acting as look-out; assists in berthing and unearthing operations, and raising, lowering and operating ship's boats and barges; maintains cleanliness of the ship and deck machinery and carries out simple repairs to deck gear and equipment; stows and removes cargo and supplies; and performs other duties.

Duties	% of Time
Stands regular watch at sea under the supervision of a watch keeping officer by:	50
<ul style="list-style-type: none"> <li>- operating the steering wheel on the ship's bridge or using emergency steering apparatus to steer the ship, as directed,</li> <li>- standing watch at bow or on a wing of the bridge to look out for obstructions in the path of the vessel, and</li> <li>- measuring depth of water in shallow or unfamiliar waters, using a lead line, and telephoning or shouting information to the bridge.</li> </ul>	
Assists in berthing and unearthing operations, and raising, lowering and operating the ship's boats or barges by:	15
<ul style="list-style-type: none"> <li>- handling mooring lines, cables, hawsers and anchors, using deck machinery such as winches, anchor windlass, capstans and derricks,</li> <li>- lowering and raising boats and landing craft, using rope and tackle and deck machinery,</li> <li>- operating a boat or barge and taking part in landing operations, and</li> <li>- taking part in towing and rescue drill and operations.</li> </ul>	
Maintains the deck department of the ship in a clean and operational condition by:	15
<ul style="list-style-type: none"> <li>- washing, chipping, scraping and painting the super-structure, deck and hull, cleaning and polishing bright work, and cleaning out holds, quarters, lockers and other spaces,</li> <li>- breaking out, rigging, overhauling and stowing cargo-handling gear, stationary rigging and running gear, splicing and repairing ropes, wire cables and cordage, sewing canvas and oiling and greasing cables, blocks and sheaves,</li> <li>- making simple repairs to other deck machinery and equipment, using common hand tools, and</li> <li>- overhauling lifeboats, lifeboat gear and other safety equipment and testing the raising and lowering of the lifeboat with winch or falls.</li> </ul>	
Performs stevedoring duties by:	10
<ul style="list-style-type: none"> <li>- loading and unloading cargo and supplies between ship and shore locations, with the aid of boats and barges using cargo gear, deck tackle and manual labour,</li> </ul>	

% of Time

- stowing and securing such cargo on or below decks, against sea and weather hazards, and
- assisting in fuelling the ship.

Performs other duties such as constructing, maintaining and repairing aids to navigation on shore and laying out and lifting buoys, handling/deploying and recovering oil pollution gear and equipment, streaming and recovering scientific equipment and gear, steering ship by compass (magnetic or gyro) as directed, working aloft and over the side. 10

Degree/  
Points

#### Specifications

##### Comprehension and Judgement

There **is** a need to understand verbal orders and obey them quickly and efficiently; little judgement is required. 1 / 50

##### Training and Experience

The work requires experience in using a steering wheel and in steering to a prescribed course. Skill in reading a compass and in using ordinary hand tools to carry out simple repairs is also necessary. 2 / 78

##### Effort

Mental - During spells of bad weather and low visibility, attention and periods of concentration are required in the work of steering the ship according to instructions, and in look-out duties. 2 / 23

Physical - The work requires constant standing while steering the ship and while performing look-out duties, considerable heavy lifting for short periods of time while handling cargo, and working from ladders and staging while washing, chipping and painting. 3 / 36

##### Responsibility

Resources - An error in judgement during steering or look-out duties, or in berthing, or raising ship's boats could lead to accidental damage to equipment. However, these duties are carried out under close supervision of a senior crew member, who is responsible for the prevention of such errors. 1 / 10

Safety of Others - The cleaning, maintenance and repair duties require contact with other crewmembers, and some care is needed to prevent injuries to others. 2 / 30

##### Working Conditions

Environment - Working conditions vary from relatively pleasant while working in the wheelhouse, to disagreeable in bad weather conditions while acting as look-out or while chipping and scraping the superstructure of the ship. The distribution of the duties results in occasional exposure to several disagreeable conditions. 2 / 46

1.3

Degree/  
Points

Hazards - Normal precautions greatly reduce the exposure to accidents resulting from falls from ladders or staging, from handling of cargo, or from contact with moving lines and deck machinery. However, from time to time work is done in more exposed areas and the risk increases.

2 / 23

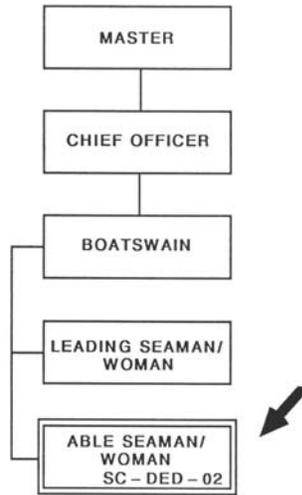
#### Supervision

The supervision of others is not normally required, but it may be necessary to show or tell other employees how to perform tasks or duties.

A1 / 15

1.4

"D Class"



BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 2

Level : DED-05

Sub-group: Deck Department

Descriptive Title: Boatswain

Point Rating: 654

Summary

Reporting to the senior officer of the deck department, supervises the deck department crew on a Canadian Government ship; ensures cleanliness of the ship and good working condition of all machinery, equipment and ship's navigational aids under control of the deck department; directs the construction, maintenance and repair of aids to navigation; and performs other duties.

Duties

% of Time

Supervises approximately 15 deck department crewmembers on a Canadian Government ship engaged in such operations as ice-breaking, buoy-laying, and delivering supplies to lighthouses and isolated posts by: 50

- determining daily work schedules, assigning tasks, checking work for completeness and ensuring observance of regulations pertaining to ships' crews,
- giving on-the-job training and instruction to crewmembers in work methods and procedures,
- maintaining discipline during working hours and in the ship's mess and canteen, reviewing work proficiency of deck crew, and making recommendations for promotion or disciplinary action, and
- controlling the deck department crew engaged in such activities as using deck machinery and hoisting equipment, berthing and unearthing ship, handling and stowing cargo and supplies, lowering and hoisting boats, landing craft, and floating and fixed aids to navigation, and securing helicopters.

Ensures cleanliness of the ship and the good working condition of all equipment and ship's navigational aids under control of the deck department by: 25

- overseeing crewmembers engaged in ship's cleaning, such as chipping and scaling steelwork, washing and painting wood-work, cleaning out holds and quarters, and
- directing running maintenance and repair to deck department machinery and equipment, such as oiling and greasing deck machinery, sewing canvas, repairing running gear, inspecting and making minor repairs to lifeboats, safety equipment and ship's aids to navigation, lights, flares and signals.

Directs the construction, maintenance and repair of aids to navigation, both floating and fixed by: 15

- taking charge of a boat or barge engaged in landing personnel, cargo, equipment and supplies on rugged sea-coasts and delivering them over beaches and difficult terrain;
- overseeing the building of forms, mixing and pouring of cement, and other work necessary to erect shore-based aids to navigation; and
- inspecting aids to navigation, determining services or repairs needed, assigning deck personnel to the work and checking completed work.

% of Time

Performs other duties such as issuing and recording deck department stores and spare parts, conducting towing, search and rescue operations, and safety, fire and damage-control drills, and steering ship when so directed.

10

Degree/  
Points

Specifications

Comprehension and Judgement

The work is done under direction of watch keeping deck officers, but requires understanding of the work of the ship and the use of judgement in interpreting instructions, co-ordinating the activities of the crew, and maintaining effective deck department activities.

4 / 170

Training and Experience

The work requires experience in the work methods and procedures of the deck department and in repair and maintenance techniques as they are related to deck equipment. The deck department work includes responsibility for keeping deck equipment in good running order by proper maintenance and servicing, and the supervision of crewmembers.

5 / 163

Effort

Mental - The work requires supervision of crewmembers engaged in a wide variety of tasks; the detailed organizing of their work demands constant attention.

4 / 50

Physical - The work demands constant walking or standing and some climbing, but little or no lifting or handling of heavy material or equipment.

2 / 23

Responsibility

Resources - Damage to equipment, waste of time and materials can result if work is not done satisfactorily.

2 / 23

Safety of Others - The work includes responsibility for the safety of others engaged in tasks that require exposure to injury.

3 / 50

Working Conditions

Environment - The duties require periodic exposure to bad weather, rough seas, and other disagreeable conditions.

2 / 46

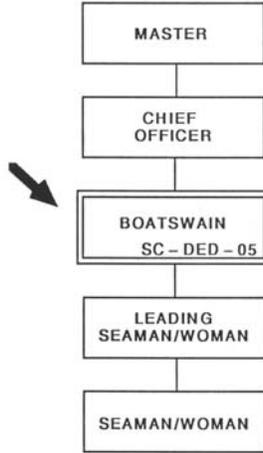
Hazards - The duties require moving close to operating machinery and occasionally handling ship's boats in rough seas and in dangerous approaches to rocky beaches. Also required is moving buoys and weights around the deck while the ship is moving in a seaway, ensuring the deck crew are working safely to avoid being struck by swinging blocks and wires.

2 / 23

Supervi si on

Approximately 15 persons will be supervised. Deck officers have over-all responsibility for supervision of the crewmembers, but the boatswain makes short-term allocations of crew to cope with workloads, checks work methods, and advises superiors on work performance of crewmembers.

D4 / 106



BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 3

Level: DED-03

Sub-group: Deck Department

Descriptive Title: Leading Seaman/Woman

Point Rating: 417

Summary

Reporting to a deck department officer or boatswain on a Large Department of Transport ship, stands regular watch at sea and in port; supervises a small group of crewmembers carrying out deck department duties; and performs other duties.

Duties % of Time

Stands regular watch at sea and in port under the supervision of a watch keeping officer  
by: 30

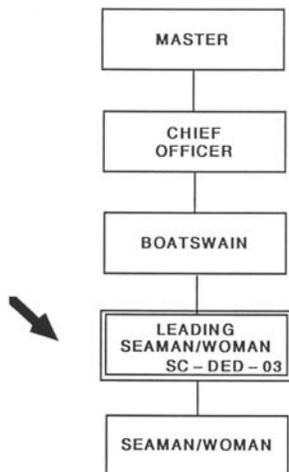
- operating the steering wheel on the ship's bridge, and steering and maintaining the ship's course as directed;
- keeping weather, telephone and radio watches and recording observations in the ship's log-book;
- making regular rounds during the silent hours while in port, to ensure the safety of ship, crew and cargo and the proper functioning of the ship's lights; and
- standing at the gangway, receiving and directing visitors, preventing unauthorized persons from coming aboard, and recording ship to shore movements of the ship's company.

Assists the boatswain in supervising one, two or three crewmembers engaged in deck department duties by: 50

- controlling the operation of deck machinery such as winches, derricks and cranes;
- overseeing the loading and unloading of equipment and supplies and the movement and securing of boats, helicopters and navigational aids such as buoys;
- acting as coxswain on a boat or barge engaged in laying and lifting buoys and aids to navigation at sea, or in transporting and unloading cargo to shore stations often located in rough terrain and requiring difficult landings;
- checking and keeping records of soundings in fresh water and ballast tanks, bilges and wells;
- participating in towing, salvage, and rescue drill and operations, and maintaining lifeboats and safety equipment in good working order; and
- overseeing the washing and cleaning of the ship's hull, decks and superstructure and the minor maintenance and servicing of cabin fixtures and non-technical systems.

Performs other duties such as messenger and shore services and cleaning, servicing and painting of navigational aids. 20

	Degree/ Points
Specifications	
Comprehension and Judgement	
The work requires understanding clear oral and written instructions and, on occasion, the exercise of judgement in carrying out orders personally and supervising others.	2 / 90
Training and Experience	
The work requires experience in steering the ship, in using a compass and keeping simple records, and in using ordinary hand tools. Experience sufficient to lead other crewmembers in work is also required.	3 / 106
Effort	
Mental - Duties include supervision of a variety of operations, with close attention and periodic examination required to ensure that quality standards are maintained.	3 / 36
Physical - The work requires constant standing, walking and climbing when on duty.	2 / 23
Responsibility	
Resources - An error in judgement while carrying out the duties could lead to accidental damage to equipment. Supervisory duties include responsibility for safeguarding against accidental damage to equipment and against waste of material and time by subordinates.	2 / 23
Safety of Others - The work includes close contact with other crewmembers in the moving of cargo, boats, and work staging. The duties include responsibility for ensuring safe working conditions.	3 / 50
Working Conditions	
Environment - Deck duties require periodic exposure to such disagreeable conditions as extremes of weather, noise and wet. Protective clothing must be worn.	2 / 46
Hazards - Injuries may occur from moving machinery, falling objects and shifting of cargo, but ordinary precaution reduces the hazard.	2 / 23
Supervision	
The work requires the supervision of no more than three crewmembers engaged in a variety of duties, assignment of work to them, and checking to ensure that it is completed according to instructions.	B2 / 20



BENCH-MARK POSITION DESCRIPTIONSSUB-GROUP: ENGINE ROOM DEPARTMENT (ERD)

BENCH-MARK POSITION NO.	DESCRIPTIVE TITLE	PAGE
4	Engine Room Rating	4.1
5	Engine Room Assistant	5.1

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 4

Level: ERD-02

Sub-group: Engine Room Department

Descriptive Title: Engine Room Rating

Point Rating: 358

Summary

Reporting to the Chief Engineer/Senior Engineer/First Engineer, perform a variety of engine room department duties in the 24 hour operation of any ship in the Regional Fleet and assist as directed in the maintenance of a clean and operational engine room.

## Duties

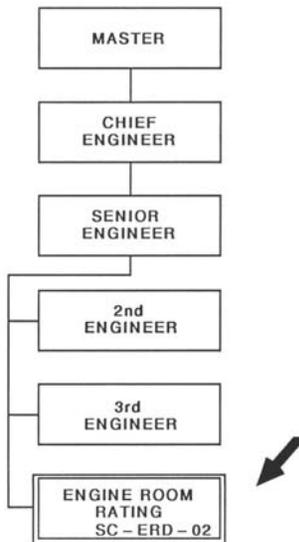
% of Time

Observe and inspect, during specified watch, operating machinery, engines and equipment to ensure normal operation conditions and report to the Engineer of the watch any exceptions or abnormalities; oil and grease machinery and equipment, clean filters, purifiers, strainers, transfer fuel between tanks and similar operational servicing; obtain information for entry as operational records into the rough engine room ledger by sounding tanks and bilges, reading gauges, thermometers, sighting oil levels, etc.; and participate in rescue, firefighting and damage control drills, exercises and operations. 50

Proceed with minor maintenance and repair work on engines; machinery and equipment as directed, using simple tools; assist the ship's electrician(s) and engineers in repair and maintenance work; rig and unrig staging; clean and fetch tools and parts; operate chain hoists and lift heavy parts, etc.; clean, polish, wash, scrub and do similar tasks in areas, places and structures; prepare surfaces of structures, engines, equipment, etc., for painting by chipping, scraping, descaling, sanding and brushing; apply a variety of protective and decorative preservatives, paints, lacquers, stains, enamels using brushes, rollers and spray guns; participate in fuelling and storing operations, handle and connect hoses to control the transfer of fuel and the amounts taken, transfer and stow stores; and do minor maintenance tasks on internal combustion engines in launches, lifeboats and barges under supervision and operational servicing without direct supervision when away from the parent ship. 40

Perform other duties such as assist in the maintenance and repair of scientific survey equipment using simple tools and chain hoists, and cleaning and greasing; fetch, clean and store tools after completion; occasionally assist in setting up shore stations by helping set up machinery and services; various duties in the Store Facilities Section; temporary watch while the Watch keeping Engineer is absent from the engine room; follow safe working procedures, using specified protective devices and equipment and reporting immediately any accidents, unsafe or unsatisfactory conditions. 10

	Degree/ Points
Specifications	
Comprehension and Judgement	
The work requires sufficient understanding to follow detailed oral and written instructions. Some judgement is required in deciding the use of lubricating materials and cleaning compounds, while following well established work schedule and well defined methods of procedures.	2 / 90
Training and Experience	
The work requires some experience in operating and servicing engines and mechanical equipment, using basic hand tools, reading measuring devices indicating temperature, pressure, level of fuel, oil and recording into ledgers.	2 / 78
Effort	
Mental - The work requires careful attention for short periods of time when oiling and greasing machinery and equipment.	2 / 23
Physical - The work requires continual standing or walking, and handling of lightweight material. Maintenance work on equipment requires a moderate level of physical effort.	2 / 23
Responsibility	
Resources - Incorrectly serviced equipment could result in loss of operational time and costly repairs.	2 / 23
Safety of Others - The work for the most part is performed in isolation and there is little likelihood of injury to others.	ii 10
Working Conditions	
Environment - The work is performed in a noisy and hot engine room and sometimes in confined spaces. There are frequent absences from home port for extended periods of time.	3 / 73
Hazards - Occasional injuries could result from burns, scalds, electric shock and moving machinery.	2 / 23
Supervision	
There is an occasional need to show other employees how to do work.	AI / 15





BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 5

Level: ERD-03

Sub-group: Engine Room Department

Descriptive Title: Engine Room Assistant

Point Rating: 426

Summary

Reporting to the Chief Engineer and under the supervision of a Watch keeping Engineer, attend to the lubrication of machinery and equipment under the control of the Engine Room Department during the hours of a regular watch at sea and an auxiliary watch in port; operate as directed all main and auxiliary machinery and equipment; keep the Engine Room Department machinery, equipment and spaces in a clean and orderly condition; work independently or under direction of an Engineer Officer during maintenance and opening up of main and auxiliary machinery for survey or repair and record data in Engine Room Logs; perform other duties as required.

Duties

% of Time

Attend to the lubrication of the machinery and equipment under the control of the engine room department during the hours of a regular watch at sea and an auxiliary watch in port; check and maintain all oil pump levels of main and auxiliary machinery including thrust shaft and propeller shaft bearing and maintain correct levels by adding as necessary; check and maintain correct levels in manually filled oil feeder boxes and grease cups of main and auxiliary machinery including pumps, steering gear, and refrigeration machinery; hand oil, using oil feeder can, all friction surfaces of pumps, steering gear and auxiliary equipment not fed from oil boxes or by forced lubrication; change and clean oil filters as necessary. 10

Operate all main and auxiliary machinery and equipment as directed by Watch keeping ER officer; observe and read pressure gauges, thermometers, pyrometers, and all other instruments provided to record the operation conditions and efficiency of all main and auxiliary machinery; record gauge and thermometer readings in the rough log and reporting any variances from normal to the Engineer in charge; check by feel, exposed cooling water and lubrication oil of all machinery to detect overheating or faulty thermometer readings; check by sound and feel, engine crankcases for overheating or faulty operations; check by feel, all accessible bearings of main and auxiliary machinery including generators; observe pressure gauges, water gauge glasses and condition of fires of heating boilers and burner tips as required; check gauges and oil levels of refrigeration machinery and refrigerated room temperatures; inspect engine room bilges and pumping out as directed; operate fuel and lubricating oil purifiers and clean purifiers as required; operate evaporator and regulate feed and heating steam as necessary and assist in opening up and clean of evaporator and coils as necessary; report to the Engineer in charge conditions found during all regular checks as outlined and report immediately any evidence of overheating or unusual operations observed during watch; as directed transfer fuel oil and ballast water between tanks by opening and closing valves and starting and stopping of pumps as necessary. 30

% of Time

Keep the engine room department machinery equipment and open spaces in a clean and orderly condition; sweep decks, clean and paint machinery and open spaces; wipe down and polish metal work and wash paint work; clean boilers and other equipment. 5

During periods of maintenance and opening up of main auxiliary machinery for survey carry out tasks such as remove inspection doors, covers, fillers, piping and engine parts as directed; carry out minor maintenance and repair of machinery; dismantle pumps and auxiliary equipment as directed; perform minor repairs and assist engineer in overhaul of boat and barge engines. 20

Carry out scheduled and routine checks and examinations of machinery such as engines, pumps, injectors, burners, auxiliary boilers, condensers, compressors, evaporators, steering gear, fans, motors, blowers boat engines, etc.; enter results, work done, running hours and other required data on machinery history cards and maintain lists of outstanding items and repairs or replacements required, or making appropriate repairs. 20

Operation of main propulsion machinery and recording of data in Engine Room logs; prepare M/ES for starting; ensure that starting gear is properly maintained, oil tanks are full and all necessary auxiliaries are operating and on line; valve positions, observe oil and watersight glasses, temperature and pressure gauges, etc., and report status of M/ES to Watch keeper; maintain the M/E movement log during periods of manoeuvring, i.e., entering and leaving berth or as required by Chief or Senior; observe gauges and M/E temperatures during and after shut down; control oil and water flow to ensure proper cooling; shut down auxiliaries as appropriate and engage locking or turning gear as required, ensuring proper shut down. 10

Perform other duties as required by the Commanding Officer such as being a member of emergency teams and carrying out the appropriate firefighting and lifeboats/life raft duties; working in small craft attached to the vessel such as workboat/lifeboats and SP barges; performing Security Duty both in the engine room spaces during absences of the Engineer and, if required for relief, at the gangway station. 5

Degree/  
 Points

Specifications

Comprehension and Judgement

The work is done with little or no supervision so that judgement is required in deciding the need for and use of lubricating and cleaning materials, and the appropriate selection of tools and small parts for maintenance. The duties require working independently during maintenance and opening of main and auxiliary machinery and keeping logs, maintaining history cards and lists of repairs and replacements. 3 / 130

Training and Experience

The work requires experience in operating and servicing engines and mechanical equipment and performing watch keeping duties. Sufficient experience is required to carry out routine checks and examinations of engines, pumps and other machinery and to assist in the operation of main propulsion machinery and maintenance of logs. 3 / 106

Degree/  
Points

## Effort

Mental - Care must be taken to ensure correct lubrication of machinery and equipment, concentration is required for short periods when reading gauges and when starting up and operating and maintaining machinery. 2 / 23

Physical - Work requires standing, walking and handling of lightweight objects such as hand tools. Maintenance work and supply handling requires heavier lifting on occasion. Often required to work in cramped and awkward positions. 2 / 23

## Responsibility

Resources - Equipment serviced is expensive and incorrect servicing and maintenance can result in costly repairs and considerable loss of operating time. Errors during normal working and checking procedures are usually found by supervisor. 2 / 23

Safety of Others - Work is usually performed in isolation and there is little possibility of injury to others. 1 / 10

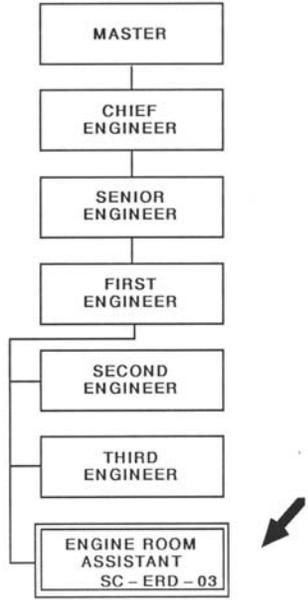
## Working Conditions

Environment - Work is performed in hot and noisy engine room and in confined spaces. Required to be at sea for periods of twenty-eight days at a time. 3 / 73

Hazards - Possibilities of burns, electric shock, scalds and falls due to movement of ship in rough weather. Occasional injury from lifting heavy machinery components. 2 / 23

## Supervision

Occasional requirement to show others how to perform tasks. A1 / 15



BENCH-MARK POSITION DESCRIPTIONS

SUB-GROUP: EQUIPMENT OPERATION DEPARTMENT (EQO)

BENCH-MARK POSITION NO.	DESCRIPTIVE TITLE	PAGE
6	Dredge Supervisor	6.1
7	Winch Operator	7.1

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 6

Level: EQ0-07

Sub-group: Equipment Operation  
Department

Descriptive Title: Dredge Supervisor

Point Rating: 819

Summary

Reporting to the Dredge master, sets up and operates dredging machinery; supervises deckhands and scowmen/women in dredging operations and equipment maintenance; participates in work estimating and planning; maintains equipment and performs other duties.

## Duties

% of Time

Sets up and operates the diesel-powered dredging machinery of a marine excavating dipper dredge by:

60

- assembling and adjusting to desired settings such dredging components as spuds, dipper, dipper arm and shaft, saddle block and wire rope, and directing other crew members to assist as required;
- manipulating the hand and foot controls of the dredging machinery to control and maintain the excavating depth within prescribed ranges; and
- tripping the dipper to dump excavated material into hopper scows.

Supervises five crewmembers in dredging operations and in routine ship's maintenance by giving simple orders and instructions and ensuring that tasks are performed in accordance with instructions.

10

Assists and relieves the Dredgemaster during emergencies, absence and incapacitation by participating in such duties as assessing dredging assignments, planning operations, controlling ancillary vessels, and maintaining discipline.

10

Keeps dredging equipment in operating condition by:

15

- carrying out running repairs and maintenance of the excavator engine, such as cleaning and setting fuel injectors, cleaning and adjusting the fuel pump, cleaning and changing oil filters and removing carbon deposits from piston rings;
- making small repairs to the dredge, tug and scows, using oxy-acetylene equipment and other tools;
- splicing and caring for manila and wire rope; and
- assisting with seasonal refit and replacement of deck equipment.

Performs other duties such as checking and issuing stores and securing barges for loading.

5

	Degree/ Points
<b>Specifications</b>	
<b>Comprehension and Judgement</b>	
<p>The work requires a thorough understanding of the principles and methods of moving, locating and operating a marine dredge and its equipment under a variety of conditions. Work is usually carried out under the general supervision of the Dredge master, but considerable latitude for judgement is allowed in setting up and maintaining equipment and in adapting standard operating methods to fit various situations. In the absence of the Dredge master the work entails complete responsibility for dredging operations.</p>	6 / 250
<b>Training and Experience</b>	
<p>The work requires training and experience in the effective operating and maintenance of dredging equipment, the care and issue of spare parts and other technical stores, the supervision of crew, and the use of hand tools and other repair equipment. Sufficient operational experience is required to assist the Dredge master in estimating and planning work and to take charge of operations in his absence. This is normally acquired through experience as a deckhand, training in the maintenance and repair of machinery, operating experience as a crane operator, and on-the-job training in all phases of dredging.</p>	8 / 250
<b>Effort</b>	
<p><b>Mental</b> - The work requires constant attention for sustained periods to ensure that the varied movements of the dredge are carried out correctly, the excavator equipment is used carefully, and the completed work meets the specifications.</p>	4 / 50
<p><b>Physical</b> - Most of the work is performed while sitting in the crane cab, and considerable physical effort is required to operate the hand and foot controls. Setting the dipper arm for changing depth, maintaining and repairing equipment, and working with steel wire cables impose greater physical effort for short periods.</p>	3 / 36
<b>Responsibility</b>	
<p><b>Resources</b> - The work requires proper use and care of equipment, spare parts and materials. Poor maintenance, failure to detect equipment malfunction, improper operation and failure to order and keep on hand sufficient spare parts and material may cause ineffective use of resources, damage to equipment, deterioration of service, inconvenience to others and financial loss in terms of time and material. Inattention to cut specifications or incorrect settings of dredge equipment could also cause the dredging of a channel of less than the specified depth and width and, consequently, the necessity of repeating the work to remove the resulting hazard to navigation.</p>	4 / 50
<p><b>Safety of Others</b> - The work requires constant care to prevent serious injury to other workers. Tripping the dipper at the wrong time could cause the excavated material to fall on crewmembers. Heavy tools or components dropped during maintenance work and breakages of improperly rigged or fastened wire rope could result in injuries to others.</p>	3 / 50
<b>Working Conditions</b>	
<p><b>Environment</b> - The crane cab affords its occupant some protection from bad weather, but the Dredge Supervisor is subject to engine noise, fumes and vibration. Daily maintenance work is carried out on deck with exposure to the weather, in cramped quarters, or on the crane boom. The work also requires absence from home port for six to nine months a year.</p>	3 / 73

## Ship's Crew

### 6.3

Degree/  
Points

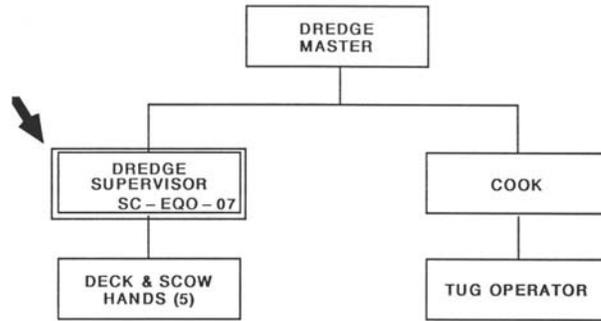
Hazards - There is the occasional possibility of incurring minor accidents such as cuts and abrasions while servicing equipment and handling heavy objects.

2 / 23

Supervision

The work requires assignment of work and giving simple instructions to five crewmembers.

B3 / 37





BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 7

Level: E00-03

Sub-group: Equipment Operation  
Department

Descriptive Title: Winch Operator

Point Rating: 404

Summary

Reporting to the Master, mate or boatswain, operates a steam-powered winch and "A" frame aboard a snagboat; services hoisting equipment and assists the boatswain with repairs and overhaul of winch and block and tackle; and performs other duties.

Duties

% of Time

Operates a three-drum, 25-ton-capacity, steam-powered winch and "A" frame aboard a snag boat to raise and lower such loads as buoys and anchors, remove snags from navigation channels, and load and unload equipment and materials used in the repair of marine structures, by manipulating the throttle, clutch and brake levers, following oral instructions and hand signals, to control the hoisting equipment.

50

Servics hoisting equipment and helps the boatswain with repairs and overhaul of the winch, and block and tackle by:

30

- cleaning and lubricating equipment;
- lifting, carrying and using tools;
- removing or installing parts;
- cleaning dismantled machinery; and
- cleaning deck and tools on completion of repair work and stowing tools and spare parts.

Performs other duties such as assisting in the repair of marine structures, surveying and sounding navigation channels, clearing brush from survey ranges, cleaning and painting the vessel and handling the mooring lines when mooring the vessel.

20

Specifications

Degree/  
Points

Comprehension and Judgement

The work is done in accordance with oral instructions and hand signals from the Master, mate or boatswain. Maintenance and repair instructions are normally in general terms and allow some latitude in the application of established methods.

3 / 130

Training and Experience

The work requires experience in the operation of a shipboard steam winch, including its servicing and maintenance. Experience is also required in the use of simple hand tools and the performance of a variety of manual tasks.

2 / 78

Effort

Mental - Winching is a short-cycle, repetitive job requiring attention with frequent but short periods of concentration. The work is done with a reasonable amount of care. The other duties require normal care and are not done to precise standards. 2 / 23

Physical - Winching requires manipulating the lever controls with moderate physical effort during a short cycle of operation. Other duties such as lifting, carrying and manipulating heavy material, clearing brush and taking soundings require constant physical effort. 3 / 36

Responsibility

Resources - Poor work can result in ineffective use of resources, damage to equipment, inconvenience to others and financial loss in terms of time, wasted material and damaged equipment. 2 / 23

Safety of Others - Winching requires reasonable care for short periods of time to prevent injury to other workers by swinging or dropping loads or tackle. Reasonable care is also required during the performance of other duties to prevent injury to workers from falling material, use of tools and the manipulation of heavy loads. 2 / 30

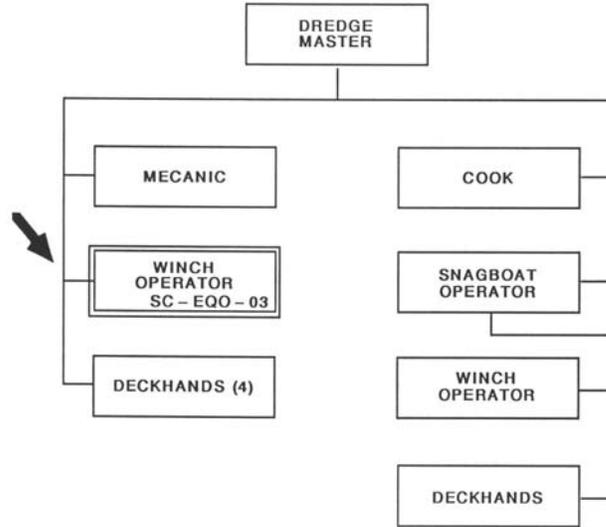
Working Conditions

Environment - The work is performed on floats, on wharves or on land exposed to the weather and to dirt, odours, noise and vibration when operating the winch or performing repair tasks. 2 / 46

Hazards - With normal precautions, exposure to injury is limited, but there is occasional risk of accident. 2 / 23

Supervision

There is an occasional requirement to show other workers how to perform tasks. AI / 15



BENCH-MARK POSITION DESCRIPTIONSSUB-GROUP: SPECIALIST TRADES DEPARTMENT (SPT)

BENCH-MARK POSITION NO.	DESCRIPTIVE TITLE	PAGE
8	Blacksmith	8.1
9	Electrician	9.1

## BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 8

Level: SPT-05

Sub-group: Specialist Trades Department

Descriptive Title: Blacksmith

Point Rating: 610

Summary

Reporting to the Chief Engineer or equivalent, repairs and fabricates metal work on a snag boat and on wharves; dismantles and assembles equipment; and performs other duties.

## Duties

% of Time

Repairs and fabricates metal work such as pipe, casings, liners, impellers, drift pins, straps, staples, U-bolts, shackles and pipeline wrenches, using electric arc welder, oxy-acetylene torch, electric drills, threading machine, forge, grinders, and other metal working tools by:

75

- heating, shaping, brazing, forging, grinding and tempering new pieces, parts and fittings, and
- burning out worn or damaged portions of machinery, patching holes and welding, and heating, straightening out and repairing bent or broken pipe, angle irons, rods and plates.

Dismantles and reassembles damaged, worn or repaired equipment, with the assistance of other crew members, by lifting, pushing or pulling parts into place and by bolting or welding components in place and installing braces and reinforcing material.

20

Performs other duties such as servicing the welder motor, attending to lines when tying up the vessel, stowing supplies and reconditioning blacksmith equipment.

5

## Specifications

Degree/  
Points

## Comprehension and Judgement

The work requires some understanding of the metallurgical principles underlying the techniques used by the blacksmithing trade, such as in brazing, forging and heat treating different metals and alloys. Judgement is exercised in determining the proper approach to be used in setting up work and the way in which instructions are to be implemented.

4 / 170

## Training and Experience

The work requires development of skill in forging, heat-treating and general metal-work fabrication, and in the use of such tools as electric arc welder, oxy-acetylene torch, electric drill, threading machine, forge and grinder. Experience is required in the application of these skills to a wide variety of heavy and light metal-working jobs.

5 / 163

8.2

Degree/  
Points

Effort

Mental - The work is done with care and accuracy and requires concentration for short periods of time when welding, forging, heat-treating or shaping metals. 2 / 23

Physical - The work requires continual standing, stooping, climbing, lifting, pushing and pulling. It is performed on dredges, floats and wharves with heavy-weight material, often in awkward positions. 4 / 50

Responsibility

Resources - Poor quality of work, failure to maintain adequate stocks, and misuse of equipment and materials may cause ineffective use of resources, deterioration of service, considerable inconvenience to others and loss in terms of time, wasted material and damaged equipment. 2 / 23

Safety of Others - The work requires care to prevent injury to other workers from hot metal or slag and cuts from sharp edges. 2 / 30

Working Conditions

Environment - The work is done inside and outside marine structures, in extremes of temperature and humidity, in high places and in dirty, noisy, wet, cramped spaces, and requires the wearing of protective gear such as goggles, shield, and heavy gloves. 4 / 100

Hazards - There is frequent exposure to burns from hot metal and injury while using heavy tools or shifting heavy equipment on slippery decks and floors. 3 / 36

Supervision

There is an occasional requirement to show other workers how to perform tasks. AI / 15





BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 9

Level: SPT-06

Sub-group: Specialist Trades Department

Descriptive Title: Electrician

Point Rating: 685

Summary

Reporting to the Chief Engineer, operates, repairs and installs the electrical machinery, equipment and power supply sources aboard ship; carries out a preventive maintenance program on the electrical installations; keeps electrical stores in a serviceable condition, keeps operating records; and performs other duties.

Duties

% of Time

Operates, repairs, and installs the electrical machinery, equipment and power supply sources aboard ship, such as steam and motor-driven generators, alternators, motors on fans, pumps and winches and intercommunication systems, to ensure a constant, safe and economical supply of electric power at all times and the proper functioning of electrically controlled devices by:

- starting up a stand-by generator and by adjusting loads between generators, following observation of switchboard instruments;
- connecting and disconnecting shore-based electrical supply cables and telephone lines, and by connecting electric supply sources to electrical and electronic equipment such as lights, motors, radio and sonar;
- starting, stopping and restarting generators, motors and other electrical devices;
- repairing and putting into commission circuits, switches, regulators and other ancillary devices, and servicing navigational equipment such as gyro compasses; and
- wiring instrument panels, fixtures and equipment for all electrical services, and by laying conduit, pulling wire through conduits and connecting wire to terminals, using hand and power tools common to the electrician's trade and following blueprints and instruction manuals.

55

Carries out a preventive maintenance program on electrical equipment and power supply systems by:

30

- reviewing operating data log-sheets and instrument readings pertaining to electrical systems;
- testing equipment and systems and determining their electrical characteristics, using voltmeter, ammeter, ohm-meter phase rotation indicator, and other instruments;
- checking lighting fixtures, replacing burnt bulbs, and servicing small electrical equipment;
- replacing commutator and slip-ring brushes, cleaning commutators and slip-rings, adjusting voltage regulators and rewinding coils on electric motors;
- refilling and recharging storage batteries;
- inspecting periodically all electrical equipment and systems; and
- preparing reports and advising the Chief Engineer on electrical repair and maintenance requirements and planned maintenance programs.

	% of Time
Ensures that electrical stores are kept in a serviceable condition and keeps operating records by:	10
<ul style="list-style-type: none"> <li>- recommending to the Chief Engineer on the disposition of obsolete or damaged parts, and on storage methods,</li> <li>- keeping records of repairs to electrical equipment, including material used and cost of repairs,</li> <li>- requisitioning electrical equipment and stores from outside contractors and following up these orders,</li> <li>- maintaining an inventory of all electrical equipment, supplies and spare parts, and</li> <li>- keeping catalogues of electrical equipment and parts up to date.</li> </ul>	
Performs other duties such as installing towing lights on ships that are being towed and keeping clerical records for the Chief Engineer.	5
	Degree/ Points
Specifications	
Comprehension and Judgement	
The work requires a thorough understanding of electrical theory and its practical application to a wide variety of electrical equipment installed on a ship. Operating, maintenance and repair handbooks are available for most of the equipment in use, but judgement is required when diagnosing faults, carrying out repairs, and interpreting instructions. Technical assistance is not normally available.	5 / 210
Training and Experience	
The duties require the skills of a certified electrician and experience in operating, servicing and repairing the specialized electrical equipment used on the ship. These skills and experience are normally acquired by completion of apprenticeship in a recognized marine electrical workshop, or its equivalent, plus additional experience and on-the-job training in electrical work aboard a ship.	7 / 221
Effort	
Mental - Repair work must be done carefully and requires close attention. Diagnosing trouble requires frequent concentration for relatively short periods of time.	3 / 36
Physical - The work requires standing and walking, and constant handling of light-weight material and electricians' tools.	2 / 23
Responsibility	
Resources - The consequence of an error can be the need for costly repairs, loss of operating time, and delay of work projects of others.	3 / 36
Safety of Others - Normally, work is performed without assistance, but reasonable care must be taken while carrying out electrical repairs to prevent injury to others.	2 / 30

Working Conditions

Environment - Work is performed in a hot and noisy engine room, in confined crawl-ways, in other closed spaces, and in the open air exposed to weather. There is frequent absence from the home port for extended periods of time.

3 / 73

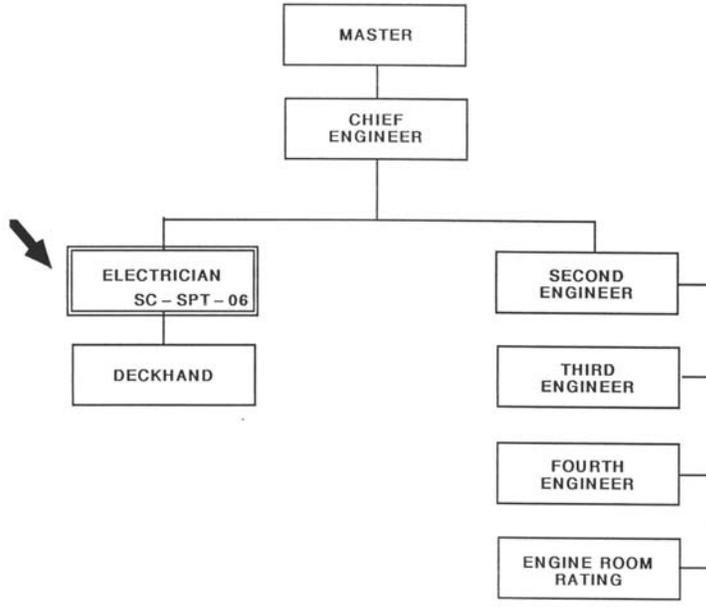
Hazards - Exposure to minor bruises and cuts is normal; precautions are taken against electric shock, such as using rubber gloves and insulated tools, but there still remains a frequent chance of accident from this source.

3 / 36

Supervision

Supervision of one or two crew members working as helpers on individual work projects is required.

B2 / 20



BENCH-MARK POSITION DESCRIPTIONSSUB-GROUP: SUPPLY DEPARTMENT (STD)

BENCH-MARK POSITION NO.	DESCRIPTIVE TITLE	PAGE
10	Chief Cook	10.1
11	Cook-Steward	11.1
12	Steward	12.1

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 10

Level: STD-05

Sub-group: Supply Department

Descriptive Title: Chief Cook

Point Rating: 628

Summary

Reporting to the supply officer, plans, organizes and conducts the activities of the galley section on a large icebreaker; supervises and participates in the cooking done by galley staff; maintains the galley and galley equipment; and performs other duties.

Duties

% of Time

Plans, organizes and conducts the activities of the galley section on a large icebreaker operating for extended periods away from home port, along Canada's northern and eastern coasts, and having on board some 60 officers, crew and passengers by: 40

- assisting the supply officer to determine standards of quality and quantity of foodstuffs to be purchased, and writing necessary requisitions;
- developing details of menus and meal schedules;
- estimating daily requirements for the use of galley equipment, utensils and provisions;
- inspecting provisions before they are prepared for consumption, to ensure that they meet the required standards of quality;
- returning all unused and usable provisions in the galley to the storerooms for subsequent re-issue; and
- drawing up shift and work schedules for junior staff, according to number and timing of meals.

Supervises two junior cooks, and participates in the daily preparation, cooking and baking of food, according to the established menu and the number of persons to be fed at each meal by: 30

- issuing instructions concerning the work to ensure that correct recipes and methods are used and general directions complied with;
- giving on-the-job training and instruction to staff in the economical preparation, cooking and handling of food and in the proper use of galley equipment and utensils; and
- maintaining discipline, preparing reports, maintaining records of regular and overtime hours worked, resolving personnel problems, and recommending disciplinary or promotion action.

Maintains the galley and galley equipment in a state of cleanliness and in good operating condition, prepares related records and reports by: 20

- overseeing the cleaning of galley accommodation, equipment and accessories, the washing of dishes, cutlery, galley laundry and uniforms, and the general cleanliness of galley personnel, to ensure high standards of sanitation and personal hygiene;
- consulting periodically with the supply officer on the condition of galley equipment and to arrange for necessary repairs and replacements;

% of Time

- noting provisioning costs and provisions consumed, spoiled, wasted, disposed of, and returned to storerooms,
- writing standing orders for the cleaning and cleanliness of the galley equipment and utensils, and
- taking a periodic inventory of all galley equipment.

Performs other duties such as taking charge of the supply department in the absence of the supply officer. 10

Specifications

Degree/  
Points

Comprehension and Judgement

The work requires understanding of the methods of ordering and stocking an adequate supply of foodstuffs to ensure the provision of meals during an extended voyage, and also some understanding of dietary and nutritional principles to ensure that the meals prepared meet established standards. Standard cook-books are available for reference and traditional cooking rules are applied, but there is latitude for judgement in obtaining the best culinary results, in substituting when shortages occur, and in making the most effective use of available supplies.

4 / 170

Training and Experience

The work requires experience in supervising and scheduling the galley operations of a large ship and vocational skill in preparing and serving varied meals for a large number of people, in using galley mechanical equipment and hand tools, and in conserving and using food supplies to best advantage.

6 / 192

Effort

Mental - Close concentration and attention are required for relatively short periods, several times daily, during the preparation, baking and cooking of foodstuffs to fairly precise recipes.

3 / 36

Physical - The work requires constant standing and continuous handling of light-weight material and cooks' tools and utensils.

2 / 23

Responsibility

Resources - The work includes responsibility for planning food requirements sufficient for some 60 people over extended voyages and for ensuring that meals are cooked promptly and satisfactorily. The monetary value of the equipment and material used is not high, but considerable loss could accumulate over a period of time if food is wasted. Poor cooking will adversely affect the morale and effectiveness of the ship's company.

3 / 36

Safety of Others - The work is done in close quarters in conjunction with two subordinates and requires the use of cutting, mixing and similar galley tools and utensils and the use of hot burners and oils. Reasonable care is required in the use of these to prevent injury to others.

2 / 30

Degree/  
Points

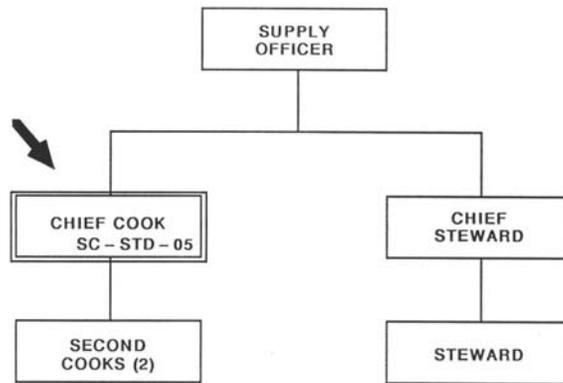
## Working Conditions

Environment - The working area is well ventilated, and exposure to heat, fumes and odours is limited, but absence from home port for long periods of time is required. 2 / 46

Hazards - The work requires the use of galley equipment such as knives, automatic mixers, and cooking materials such as boiling water and fats used in the preparation of meals; this represents a hazard during rough weather. 2 / 23

## Supervision

Direct supervision is exercised over two assistant cooks. D2 / 72



BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 11

Level: STD-04

Sub-group: Supply Department

Descriptive Title: Cook-Steward

Point Rating: 498

Summary

Reporting to the Master, plans, prepares and directs the serving of meals on a Canadian Government ship; supervises the work of galley staff; orders provisions and maintains records and reports; and performs other duties.

Duties

% of Time

Plans, prepares and directs the serving of meals for a ship's company of 14 on a Canadian Government ship used for fisheries patrol duties on Canada's west coast by: 75

- drawing up menus for meals in consultation with the Master;
- moving provisions to and from storerooms and freezers to the galley;
- inspecting provisions before they are prepared for consumption, to ensure that they meet the required standards of quality;
- assembling, cooking and baking food to produce tasty and wholesome meals at scheduled times and at an economical cost;
- overseeing the serving of meals, the disposing of waste, and the salvaging of usable food; and
- supervising the washing and drying of dishes, cutlery, pots and pans and glassware after meals, and the cleaning of galley accommodation, equipment and accessories.

Supervises galley staff of two by: 15

- giving instructions in the preparation of food, the setting, serving, and clearing away of tables, and the removal and storage of utensils, foodstuffs and provisions;
- overseeing the cleaning of officers' and crews' quarters, including bedding and linen;
- maintaining discipline, assigning work and ensuring that it is completed on schedule; and
- inspecting uniforms and quarters used by galley staff, to ensure that a high standard of sanitation and personal hygiene is maintained.

Orders provisions and maintains records and reports by: 5

- requisitioning for victualling supplies and checking the receipt, quality and quantity of all orders;
- compiling provisioning cost records and preparing reports on food consumption for the Master; and
- periodically checking galley equipment, utensils, provisions and supplies, in order to make adjustments to the equipment inventory and to report needed repairs to the Master.

Performs other duties such as operating a laundry when the ship is away from home port, and carrying out deck duties. 5

## Specifications

## Comprehension and Judgement

The work requires understanding of the methods of ordering and stocking and adequate supply of foodstuffs to ensure the provision of meals during extended patrols, and also some understanding of dietary and nutritional principles to ensure that the meals prepared meet established standards. Standard cookbooks are available for reference and traditional cooking rules are applied, but there is latitude for judgement in obtaining the best culinary results, in substituting when shortages occur, and in making the most effective use of available supplies.

4 / 170

## Training and Experience

The work requires experience in preparing and cooking meals. This includes at least two to three years of experience as assistant cook and cook, with a knowledge of butchering, baking and pastry making.

4 / 134

## Effort

Mental - Close concentration and attention are required for relatively short periods of time during crucial points in the preparation, baking and cooking of such foodstuff as cakes and pastry.

2 / 23

Physical - The work requires constant standing, walking and carrying when preparing and serving food.

2 / 23

## Responsibility

Resources - The work includes the responsibility for preparing and cooking regular meals for 14 persons during extended sea patrols, and for ensuring that foodstuffs and supplies are used economically.

2 i

Safety of Others - The work of preparing food is not normally done in close proximity to others, and there is little danger of causing injury to others.

1 / 10

## Working Conditions

Environment - The work area is normally adequately lighted and ventilated, and there is no requirement for outside duties in wet or stormy weather. Exposure to heat, fumes and odours in the galley is limited, but absence from home for long periods of time when the ship is at sea is required.

2 / 46

Hazards - There is a requirement to work with hot stoves, sharp knives, boiling water and fats; this creates hazards during rough weather and can cause serious injuries in spite of safety precautions.

2 / 23

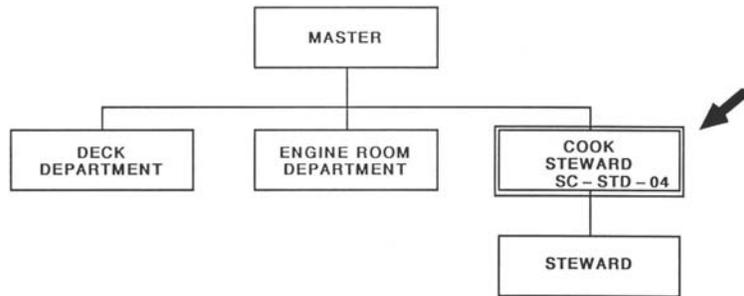
## Supervision

The work requires the supervision of two crewmembers, assigning work to them, instructing them in work methods and procedures, ensuring that tasks are completed on schedule, and maintaining discipline.

C2 / 46

11.3

"C Class"



BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 12

Level: STD-01

Sub-group: Supply Department

Descriptive Title: Steward

Point Rating: 211

Summary

Reporting to the Chief Cook, Cook or Chief steward, maintains the cleanliness of the cabins and common rooms on a Canadian Government ship; assists in the preparation and serving of meals; and performs other duties.

Duties

of Time

Maintains the cleanliness of cabins and common rooms on a Canadian Government ship engaged in conducting oceanographic research and carrying a complement of some 50 officers, crew and scientific staff by:

50

- making up beds and berths in officers' and passengers' cabins and changing linen and towels;
- checking laundry for loss and repair and helping in the operation of the ship's laundry; and
- painting, cleaning, waxing and polishing cabins, stairways, hallways, saloons, lounges, messrooms, pantries, washrooms and toilets.

Assists in serving meals to the ship's company and passengers by:

40

- preparing provisions and foodstuffs as directed;
- setting tables, serving meals, clearing and cleaning tables after meals, and removing and storing utensils, foodstuffs and provisions; and
- washing and drying dishes, cutlery, pots and pans, and glassware after meals, and polishing silver and brassware.

Performs other duties such as moving provisions to and from storerooms and freezers, carrying provisions aboard ship, cleaning storerooms and carrying baggage to and from cabins.

10

Specifications

Degree/  
Points

Comprehension and Judgement

The work requires sufficient understanding to maintain cabins and common rooms on the ship in a clean, neat and orderly fashion and to work in the galley and mess rooms under direction. The duties are routine and standardized, allowing little scope for independent action or judgement.

1 / 50

Training and Experience

Some knowledge and experience is required in the best methods of cleaning and maintaining cabins and rooms in a neat and tidy condition, and training is also required in the preparation and serving of meals.

1 / 50

Effort

Mental - Duties are straightforward, they are not done to precise standards, and their performance requires only normal care and attention. 1 / 10

Physical - The work requires intermittent standing and walking while handling foodstuffs, linens, dishes and other light-weight materials. Occasionally some heavier lifting is required while handling provisions and baggage. 1 / 10

Responsibility

Resources - Equipment handled is inexpensive. Inadequate service is readily apparent and easily corrected, and an error has little consequence except some inconvenience to others. 1 / 10

Safety of Others - There is little possibility of injury to others, as much of the work is done alone. Only when preparing and serving food and handling provisions is there some possibility of causing minor injury to others. 1 / 10

Working Conditions

Environment - The duties require absence from home for extended periods of time while the ship is at sea. Other disagreeable conditions are occasionally encountered, such as heat, odours and fumes in the galley. 2 / 46

Hazards - The work in the galley presents possible hazards such as scalding, burns or cuts. Normal care minimizes the occurrence of such accidents. 1 / 10

Supervision

The supervision of other employees is not normally a requirement of this position, but there is a need to show others some details of the duties involved. AI / 15

12.3

"F Class"

