



CLASSIFICATION STANDARD

**GENERAL LABOUR AND TRADE**

**OPERATIONAL CATEGORY**

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### **OPERATIONAL CATEGORY**

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## INTRODUCTION

This standard describes the rating plans to be used to evaluate positions allocated to the General Labor and Trades Group. It consists of an introduction, definitions of the Operational Category, the occupational group and sub-groups, a basic point-rating plan for all positions in the group, a supervisory rating plan, and bench-mark position descriptions.

All positions in this group will be evaluated using the basic point-rating plan. Supervisory positions will be allocated to a sub-group on the basis of the allocation criteria for supervisory positions, and will be evaluated using the basic and supervisory rating plans.

Point rating is an analytical, quantitative method of determining the relative values of jobs. It is particularly suited to heterogeneous occupational groups in which jobs consist of varied combinations of tasks. Essentially, point-rating plans define characteristics or factors common to the jobs being evaluated. They define degrees of each factor or element and assign point values to each degree. The total point value determined for each job is the sum of the point values assigned by the raters to the elements.

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

### Sub-grouping

This occupational group is divided into nineteen (19) sub-groups, which are defined in the standard.

### Factors

The combined factors do not necessarily 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 values of jobs.

Four factors are used in the basic plan and one factor is used in the supervisory plan. Each factor is defined in terms of two or more related elements.

### Point Values

The maximum point value assigned to each factor in the basic plan reflects its relative importance. Similarly, point values have been assigned to the degrees of the elements in the basic plan.

In the basic plan, the point values for the degrees of the elements of each factor increase arithmetically. With two exceptions, the minimum point value assigned to each element is one-fifth of the maximum. In the Hazards element of the Working Conditions factor, the minimum point value is one-tenth of the maximum. In the Specific Vocational Training element of the Skill and Knowledge factor, the minimum point value is one-twelfth of the maximum.

### Degree Co-ordinates

The degree co-ordinates assigned in the supervisory plan reflect the nature of supervisory responsibility and the number of employees supervised.

Rating Plans

In the basic rating plan the following factors, elements, weights and point values are used:

<u>Factor</u>	<u>Element</u>	<u>Percentage of Total Points</u>	<u>Point Values</u>	
			<u>Minimum</u>	<u>Maximum</u>
Skill and Knowledge		60		
	Basic Knowledge		24	120
	Comprehension and Judgment		36	180
	Specific Vocational Training		25	300
Effort		15		
	Mental Effort		15	75
	Physical Effort		15	75
Responsibility		15		
	Resources		20	100
	Safety of Others		10	50
Working Conditions		10		
	Environment		12	60
	Hazards		4	40
		100		

In the supervisory rating plan the following factor and elements are used:

<u>Factor</u>	<u>Element</u>
Supervision	Nature of Supervisory Responsibility
	Number of Employees Supervised

Bench-mark Position Descriptions

Bench-mark position descriptions are used to exemplify degrees of elements. Each description consists of a brief summary, a list of the principal duties with the percentage of time devoted to each, and a specification describing each of the elements as it appears in the position. The bench-mark positions have been evaluated, and the degree and, where applicable, the point value assigned to each element are shown in the specifications.

The rating scales identify those bench-mark position descriptions chosen to exemplify specific degrees. These descriptions are an integral part of the rating plans and are used to ensure consistency in applying the rating scales.

Use of the Standard

There are eight steps in the application of this standard.

1. The position description is studied to ensure understanding of the position as a whole and its relation to positions with similar duties and to positions above and below it in the organization.

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. Allocation of the position to the sub-group is confirmed by reference to the sub-group definitions and to the bench-mark position descriptions.
4. The tentative degree of each element in the position being rated is determined by comparison with degree definitions in the rating scales. The Specific Vocational Training and the Resources elements do not have degree definitions, and for these the tentative degree is determined by the comparative ranking of the position being rated with the bench-mark positions. For the Specific Vocational Training Element raters may use the Profile Guide as a check on the degree tentatively selected.
5. The description of the element in each of the bench-mark positions exemplifying the degree tentatively established is compared with the description of the element in the position being rated. Comparisons are also made with descriptions of the element in bench-mark positions exemplifying the degrees above and below the one tentatively established.
6. The point values for all elements are added to determine the tentative total point rating in the basic plan.
7. The degree co-ordinates indicate the level of supervision in the supervisory plan.
8. The position being rated is compared as a whole to positions in the same sub-group or in other sub-groups to which similar total point values and degree co-ordinates 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 positions in each occupational group or sub-group. Non-supervisory positions that fall within a designated range of points in terms of the point values assigned using the basic plan will be regarded as of equal difficulty and will be allocated to the same level. Supervisory positions will be rated under both the basic point-rating plan and the supervisory plan. The base level of each supervisory position will be established by its rating under the basic plan. A supervisory differential will be applied to each supervisory position, its amount being determined by the rating of the position under the supervisory plan.

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 DEFINITIONS1. Elemental (ELE)

The performance or supervision of routine duties where adherence to rigid standards or specifications is not required and where little or no latitude exists for judgment. The work includes tending and making minor operating adjustments to machines and equipment that require no precision set-up.

This sub-group includes such occupations as laborer, labor-pool supervisor, lubrication worker, air-hammer operator, concrete-mixer operator and all trades helpers.

2. Manipulating (MAN)

The performance or supervision of duties that require the dexterous use of hands, hand tools or special devices to work, move, guide or place objects or materials where some latitude exists for judgment in selecting appropriate tools, objects, or materials, in determining work procedure and conformance to standard, and in improvising to meet special conditions, although all of these requirements are fairly obvious. The work most frequently occurs away from a machine-oriented environment and is prevalent in bench-crafts, structural work, gardening and specialty farming.

This sub-group includes such occupations as armature winder, farmhand-livestock, gardener, insulation worker, pipelayer, welder and canal maintenance worker.

3. Machine Driving-Operating (MDO)

The performance or supervision of duties that require starting, stopping and moving the controls of machines that must be steered or guided in order to transport people, or move goods, earth or other material.

This sub-group includes such occupations as bus driver, chauffeur, crane operator, power-shovel operator, tractor operator, and truck driver.

4. Machine Operating - Controlling (MOC)

The performance or the supervision of duties that require setting-up, starting, adjusting, watching and stopping machines and equipment to fabricate or process materials or products, or to move and control navigational or other structures, or to ensure the proper operation of a Loran or Decca navigational system. Typically the work involves operating and/or monitoring the operation of one kind of machine or equipment and includes selecting and installing tools and holding devices; observing the functioning of the machine or equipment and various types of indicating devices; making necessary adjustments to allow for such variables as temperature changes, the flow of material or things, angles of cut, synchronization of radio signals; starting and operating standby power equipment; identifying malfunctions and switching on standby units; removing materials or products from a machine and verifying their accuracy; and making minor repairs to the machine or equipment. Considerable latitude exists for judgment in determining conformance to standards.

This sub-group includes such occupations as bridge operator, lock tender, furnace operator, punch-press operator, rolling-mill operator and scope watcher.

5. Ammunition Working (AMW)

The performance or supervision of duties that require handling, examining, repairing, modifying, inspecting or destroying ammunition and components, or that require assisting in or conducting tests for proofing ammunition and components. Typically the work is performed at an ammunition magazine or depot where hazard conditions are high, or at a proof firing range.

This sub-group includes such occupations as ammunition assembler and maintainer, ammunition supply worker, ammunition quality and safety inspector, and ammunition warehousing and production supervisors.

Excluded from this sub-group are all positions in which:

- (a) the storage, handling or issue of ammunition is of primary importance, and where that ammunition is small-arms ammunition only;
- (b) the maintenance of buildings and other facilities is of primary importance; and
- (c) the supervision of occupations that are not included in this sub-group is of primary importance.

6. Grain Handling and Weighing (GHW)

The performance or supervision of the official weighing of grain and grain by-products; or the operation of machinery and equipment in government-owned terminal elevators; or the inspection of carriers and equipment utilized in the handling and processing of grain and grain by-products at government or privately-owned grain elevators.

This sub-group includes such occupations as weighing assistant, grain cleaner supervisor, dumper tender, grain handler, sweeper, grain weigher, elevator worker, gallery worker, hopper tender, grain sampler, general foreman/woman, and distributor.

Excluded from this sub-group are all positions in which the maintenance of equipment is of primary importance.

Skilled Trades, Journeyman, Craftsman and Higher

(This definition applies to sub-groups 7 through 19).

The performance and supervision of duties that require fabricating, processing, inspecting or repairing materials, equipment, products or structural units, including the layout of work, the set-up of equipment and the operation of precision tools and instruments. The work performed requires the application of an organized body of knowledge related to materials, tools and principles associated with skilled crafts and a thorough knowledge of machine capabilities, properties of materials and craft practices. There is also a requirement to plan the order of successive operations, use manuals and technical data to position work, adjust machines, establish datum points, verify accuracy, and assume responsibility for the completion of each assignment.

7. Precision Working (Levels 5-14 inclusive) (PRW)

The performance or supervision of duties that require skill in working with hands, hand tools or work aids according to prescribed standards. Although the techniques and procedures are established, the work entails responsibility for achievement of the ultimate goal. Considerable latitude exists for judgment in determining work procedures, selecting tools and materials, and modifying techniques to meet varying job requirements.

This sub-group includes such occupations as leather worker-surgical, shoemaker, dental technician, upholsterer, and related supervisors.

8. Painting and Construction Finishing (Levels 6-14 inclusive) (PCF)

The performance or supervision of duties relating to the application of paint and related materials to buildings and other structures using brushes and spray guns, or to the construction finishing occupations, specified in the inclusions, and requiring the use of skills normally associated with journeyman proficiency.

This sub-group includes such occupations as motor-vehicle painter, brush painter, sign painter, plasterer, stonemason, bricklayer, glazier, tile setter and related supervisors.

9. Aircraft Maintaining (Levels 9-14 inclusive) (AIM)

This sub-group includes such occupations as aero-engine mechanic, aircraft mechanic and related supervisors.

10. Instrument Maintaining (Levels 9-14 inclusive) (INM)

This sub-group includes such occupations as instrument maker, instrument mechanic, scales mechanic, and related supervisors.

11. Machinery Maintaining (Levels 5-14 inclusive) (MAM)

This sub-group includes such occupations as air-conditioning and refrigeration mechanic, millwright, locksmith, oil burner installer and repairer, building services technician, and related supervisors.

12. Vehicle and Heavy Equipment Maintaining (Levels 8-14 inclusive) (VHE)

This sub-group includes such occupations as automobile mechanic, gasoline/diesel/propane engine mechanic, engineering-equipment mechanic, wheel-alignment mechanic, and related supervisors.

13. Boilermaking - Blacksmithing (Levels 9-14 inclusive) (BOB)

This sub-group includes such occupations as blacksmith, boilermaker, hammersmith, and related supervisors.

14. Electrical Installing and Maintaining (Levels 9-14 inclusive) (EIM)

This sub-group includes such occupations as electrical-instrument repairer, electrical repairer, electrician, line maintainer, line repairer and related supervisors.

15. Pipefitting (Levels 9-14 inclusive) (PIP)

This sub-group includes such occupations as pipefitter, pipefitter-welder, plumber, and related supervisors.

16. Sheet-metal Working (Levels 8-14 inclusive) (SMW)

This sub-group includes such occupations as automobile-body repairer, sheet-metal worker, and related supervisors.

Excluded from this sub-group are positions engaged in setting-up and/or operating metal-working machines for the mass production of sheet-metal parts or products.

17. Woodworking (Levels 9-14 inclusive) (WOW)

This sub-group includes such occupations as cabinetmaker, carpenter, wood patternmaker, and related supervisors.

18. Metal Machining (Levels 9-14 inclusive) (MST)

This sub-group includes such occupations as machinist, maintenance machinist, prototype machinist, tool-and-die maker, tool-machine set-up operator, machine builder, and related supervisors.

Occupations concerned with the machining of plastics or similar materials are included when methods applied to metal machining are used.

19. Construction Inspecting (Levels 9-14 inclusive) (COI)

The performance or supervision of duties that require the inspection of construction work for conformity to prescribed standards or specifications, where the inspector has no supervisory control of the workers who perform the work inspected and where the following functions are of primary importance:

- to act as the architect's or engineer's representative on the construction site of work being performed under contract, with responsibility to ensure that work proceeds according to an agreement and that all statutory requirements are met by the contractor before progress payments are released, or
- to perform the duties of an inspector employed by property management, with responsibility for examining and recommending the work that should be done to properly maintain structures, and for recommending to management the acceptance or rejection of work.

The supervision of workers engaged in the performance of duties in a number of skilled-construction trades sub-groups that requires sufficient knowledge of each of the trades supervised (as defined in the classification standard) to recognize that principles and methods are being followed and that completed work conforms to accepted trade standards.

This sub-group includes such occupations as construction inspector, construction and maintenance superintendent and multi-construction-trade supervisor.

Excluded from this sub-group are all positions in which the primary duties and responsibilities are included in the definition of any other sub-group in the General Labor and Trades group.

ALLOCATION OF SUPERVISORY POSITIONS

The positions who exercise supervision of the nature defined for degrees A and B in the supervisory rating plan can be allocated to a sub-group, for in addition to supervising others they are working along with them, and the kind of work they perform indicates the appropriate sub-group.

Allocation of a supervisory position to a sub-group presents no problem when the nature of the supervisory responsibility corresponds to degree C, D, or E, and is exercised over subordinates whose positions are allocated to only one sub-group.

Allocation of a supervisory position to a sub-group may present a problem when the nature of supervisory responsibility corresponds to degree C, D or E, and when the positions of subordinates have been allocated to more than one sub-group. The objective application of the following criteria will, in the majority of cases, lead to the selection of a sub-group whose definition accurately describes the nature of the supervisory duties under review:

1. the sub-group to which the largest number of subordinate positions are allocated, and which may or may not represent a majority of the subordinate positions;
2. the occupation that may be recognized as being basic to the achievement of the objectives of the work group supervised, and which may or may not represent a majority of the subordinate positions;
3. the sub-group that, by its own definition, most clearly represents the significant function of the supervisor, even though in some cases no subordinate positions are allocated to it;
4. the extent to which the supervisor is personally required to have a good job knowledge of each of the different occupations in the work group in order to accept or reject work: measures of this will include the degree to which subordinate supervisors are delegated responsibility for quality control, the relative complexities of the occupations or trades supervised and the importance of specialized functions to the overall objectives of the group;
5. the use of the Construction Inspecting sub-group, subject to the above criteria, for supervisory positions in which the primary duties are included in the definition of a number of skilled construction-trades sub-groups, i.e., PCF, MAM, BOB, EIM, PIP, SMW, WOW and COI.

POINT BOUNDARIESGENERAL LABOUR AND TRADES GROUP

Level	Points
1	- - 210
2	211 - 250
3	251 - 290
4	291 - 330
5	331 - 380
6	381 - 430
7	431 - 480
8	481 - 540
9	541 - 600
10	601 - 660
11	661 - 720
12	721 - 780
13	781 - 840
14	841 - 900

BASIC POINT-RATING PLANRATING SCALESGENERAL LABOUR AND TRADES GROUP

BASIC KNOWLEDGE	120
COMPREHENSION AND JUDGEMENT	180
SPECIFIC VOCATIONAL TRAINING	300
MENTAL EFFORT	75
PHYSICAL EFFORT	75
RESOURCES	100
SAFETY OF OTHERS	50
ENVIRONMENT	60
HAZARDS	40
	1,000

### SKILL AND KNOWLEDGE

This factor is used to measure the basic knowledge, comprehension and judgment, and specific vocational training required to perform the duties.

#### Definitions

"Basic knowledge" refers to the language, mathematical and other requirements of the work, such as the ability to read diagrams and drawings.

"Comprehension and judgment" refers to the need to understand instructions and principles and to make judgments.

"A set of relevant principles and methods" used in the Comprehension and Judgment element refers to the general facts and rules governing the working of a machine or systems or the properties of substances and materials, and the systematic and regular ways of achieving desired results, e.g., electrical wiring systems, metal machining, farm management, internal combustion engines.

"Specific vocational training" refers to the relative amount of training required to learn the techniques and develop the facility to perform the duties of the position.

#### Notes to Raters

The skill and knowledge to which the Basic Knowledge and the Comprehension and Judgment elements refer is acquired by various combinations of formal and private study and experience.

In rating positions under the Comprehension and Judgment element raters are to consider the understanding needed, the nature of the guide-lines, instructions, principles and practices that govern the work, and the judgment required in their interpretation and application. In determining the extent to which the comprehension and judgment required in the position being evaluated satisfy the degree criteria, considerations should include, but are not limited to, the following:

- the requirement to determine specific work procedures within the framework of standard trade practices;
- the requirement to adapt standard trade practices in order to resolve special problems;
- the relative complexity of the work context in terms of inter-related trades operations, varied services, systems, substances, situations or other variables;
- the requirement to develop methods or procedures;
- the requirement to coordinate the activities of several trades.

The skill and knowledge to which the Specific Vocational Training element refers is acquired by one or more of the following means:

1. Vocational education in a technical school or vocational institute.
2. Apprenticeship training for apprenticeable jobs.

3. In-plant training given by an employer in the form of organized study.
4. On-the-job training under the instruction of qualified workers.
5. Training and experience in the same or related work that have provided the essential skills and knowledge.

As the first four degrees of the Specific Vocational Training element imply relatively short periods and the last four degrees imply relatively long periods, two separate arithmetic progressions are used to reflect the difference.

The degrees of the Specific Vocational Training 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 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. For the further assistance of raters, a profile guide has been prepared for this element, which may serve as a check on the degree of the element tentatively selected for a position. In that certain positions require recognized qualifications in more than one (1) specialty, a higher degree may be warranted provided the total requirement in the position being rated equates with the total requirement in the bench-marks selected to exemplify the higher degree.

SPECIFIC VOCATIONAL TRAINING  
ELEMENT PROFILE GUIDE

<u>Sub-Group Title</u>	<u>Range of degrees that may be expected for non-supervisory positions</u>
Elemental	1 - 2
Manipulating	2 - 5
Machine Driving-Operating	2 - 4
Machine Operating-Controlling	2 - 5
Ammunition Working	2 - 5
Grain Handling-Weighing	2 - 4
Precision Working	4 - 5
Painting and Construction Finishing	4 - 5
Aircraft Maintaining	5 - 6
Instrument Maintaining	5 - 6
Machinery Maintaining	4 - 6
Vehicle and Heavy Equipment Maintaining	5 - 6
Boilermaking - Blacksmithing	5
Electrical Installing and Maintaining	5 - 6
Pipefitting	5 - 6
Sheet-metal Working	5
Woodworking	5 - 6
Metal Machining	5 - 6
Construction Inspecting	6 - 7

## RATING SCALE - SKILL AND KNOWLEDGE BASIC KNOWLEDGE

Basic Knowledge Required	Degree	Points	Bench-Mark Position Descriptions	Page
The work requires reading, writing and speaking; elementary arithmetic, such as adding, subtracting, simple measuring or proportioning; or simple transcribing or recording of information.	1	24	Helper, Trades Lubricator, Automotive Equipment Mortar Mixer Heavy-Equipment Operator	3.1 6.1 7.1 15.2
The work requires simple arithmetic to add, subtract, multiply and divide, make measurements, proportion material, make simple estimates of labor and material; the recording or transcribing of symbols, codes, numbers or quantities; the maintaining of simple records.	2	40	Labor Supervisor, Park Maintenance Farm Hand, Livestock Gardener Lock Operator Painter Weighing Assistant	5.1 9.1 11.1 22.1 28.1 60.2
The work requires transposing information using tables, graphs or charts; reading or preparing simple drawings or diagrams; drafting simple correspondence or reports; maintaining somewhat complex records; making detailed calculations or estimations; or requires some knowledge of basic shop or trade math.	3	56	General Labor Supervisor Welder, Combination Lockmaster Power-Press Operator Leather Worker, Prosthetics Sign Painter	2.1 13.1 23.2 24.1 26.1 30.1
The work requires maintaining a system of records, such as inventory; reading or preparing moderately difficult diagrams or drawings; preparing detailed operating or incident reports; or carrying out algebraic and geometric procedures in mainly repetitive or standardized applications.	4	72	Farm Labor Supervisor Bridge Operations Supervisor Senior Upholstery Instructor Aircraft Welder/Machinist Automobile Mechanic Power Line Repairer	10.1 20.2 27.2 36.1 42.1 48.1
The work requires reading technical manuals, complex drawings, specifications, layouts, blueprints or schematics; or carrying out algebraic and geometric procedures in non-standardized situations.	5	88	Aircraft Mechanic Instrument Mechanic, Optical Electrician, Airport Sheet-Metal Worker Carpenter, Maintenance Inspector of Construction, Small Projects	35.2 37.1 47.2 53.1 55.1 62.1
The work requires interpreting technical manuals, complex drawings, specifications, layouts, blueprints or schematics; or making calculations using technical data and elementary trigonometry; or preparing comprehensive reports.	6	104	Production Plant Manager Machinist Tool-and-Die Maker Regional Construction Supervisor	25.2 56.1 57.1 63.2
The work requires evaluating technical data; resolving differences in interpretation and/or authorizing changes to specifications; making comprehensive cost, establishment or production estimates; or implementing cost control systems.	7	120	Superintendent, Maintenance	65.2

RATING SCALE - SKILL AND KNOWLEDGECOMPREHENSION AND JUDGEMENT

Comprehension and Judgment	Degree	Points	Bench-Mark Position Descriptions	Page
The work requires sufficient understanding to carry out one- or two-step instructions, carry out highly repetitive work, or work under immediate supervision; and requires little or no judgment.	1	36	Air-Hammer Operator Helper, Trades Mortar Mixer Tire Repairer	1.1 3.1 7.1 8.1
The work requires sufficient understanding to carry out detailed written or oral instructions and requires judgment in carrying out instructions or in selecting the order or course of action to be followed.	2	64	Labor Supervisor, Park Maintenance Farm Hand, Livestock Fork-Lift-Truck Operator Truck Driver, Light Lockmaster	5.1 9.1 14.1 19.1 23.2
The work requires sufficient understanding to work within established practices and procedures and requires judgment in their application, in selecting the appropriate course of action to be followed, or in making decisions that affect quality, accuracy or utility of results.	3	93	Farm Labor Supervisor Gardener Welder, Combination Motor-Grader Operator Painter Grain Weigher	10.2 11.1 13.1 17.1 28.1 59.2
The work requires an understanding of a set of relevant principles, practices and procedures and requires judgment in selecting the appropriate course of action, interpreting instructions and solving technical problems.	4	121	Senior Upholstery Instructor Ammunition Inspection Supervisor Automobile Mechanic Pipfitter Carpenter, Maintenance Grain Cleaner Supervisor	27.2 32.2 42.2 51.1 55.2 58.2
The work requires a thorough understanding of a set of relevant principles, practices and procedures, or understanding of a number of sets of relevant principles, practices and procedures and requires judgment in interpreting instructions and solving technical or operational problems.	5	150	Production Plant Manager Aircraft Mechanic Electrician, Airport Carpenter Supervisor Construction Officer	25.2 35.2 47.2 54.2 61.2
The work requires a thorough understanding of a number of sets of relevant principles, practices and procedures and requires judgment in interpreting general instructions or in solving complex technical or major operational problems.	6	180	Regional Construction Supervisor Shop Superintendent, Marine Aids Superintendent, Maintenance	63.2 64.2 65.2

RATING SCALE - SKILL AND KNOWLEDGESPECIFIC VOCATIONAL TRAINING

Degree of Specific Vocational Training	Points	Bench-Mark Position Descriptions	Page
1	25	Air-Hammer Operator Laborer, Roads and Grounds Lubricator, Automotive Equipment Mortar Mixer Tire Repairer	1.1 4.1 6.1 7.1 8.1
2	50	Helper, Trades Labor Supervisor, Park Maintenance Fork-Lift-Truck Operator Truck Driver, Light Ammunition Supply Worker	3.1 5.1 14.1 19.1 33.2
3	75	Farm Hand, Livestock General Maintenance Worker Mobile-Crane Operator Truck Driver, Heavy Lockmaster	9.1 12.2 16.2 18.1 23.2
4	100	Farm Labor Supervisor Welder, Combination Heavy-Equipment Operator Oil-Burner Repairer Grain Cleaner Supervisor	10.2 13.1 15.2 40.1 58.2
5	150	Gardener Aircraft Welder/Machinist Metal Fabricator, Marine Aids Pipefitter Carpenter, Maintenance Machinist	11.1 36.2 46.1 51.1 55.2 56.2
6	200	Aircraft Mechanic Electrician, Airport Carpenter Supervisor Inspector of Construction, Small Projects	35.2 47.2 54.2 62.2
7	250	Production Plant Manager Maintenance Supervisor, Plumbing and Heating Shop Superintendent, Marine Aids Superintendent, Maintenance	25.2 50.2 64.2 65.2
8	300		

EFFORT

This factor is used to measure the fatigue caused by 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 frequency, intensity and duration of concentration, and mental-sensory coordination 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.

In evaluating supervisory positions under Mental Effort, raters are to consider the varying demands in such areas as: work planning; staff scheduling; material and labor estimating; work coordination, review and inspection; and involvement with contracts, specifications and drawings.

RATING SCALE

EFFORT - MENTAL EFFORT

Mental Effort	Degree	Points	Bench-Mark Position Descriptions	Page
The work requires generally only normal attention or involves little directed thinking; eye-hand coordination does not involve precision, close tolerances or rapid response.	1	15	Helper, Trades Lubricator, Automotive Equipment Gardener Weighing Assistant	3.1 6.1 11.2 60.2
The work requires generally a moderate level of attention or mental-sensory coordination with short periods of concentration; or more complex or demanding work is sufficiently repetitive to be considered cyclical or involve reflexive action reducing the level of attention required.	2	35	Farm Labour Supervisor General Maintenance Worker Truck Driver, Heavy Lock Operator Painter Oil-Burner Repairer	10.2 12.2 18.2 22.2 28.1 40.2
The work requires generally a high level of attention or mental-sensory coordination with long periods of concentration.	3	55	Welder, Combination Mobile-Crane Operator Leather Worker, Prosthetics Sign Painter Farm-Machinery Mechanic Carpenter Supervisor Shop Superintendent, Marine Aids	13.1 16.2 26.2 30.2 44.2 54.2 64.2
The work requires generally a very high level of attention or precise mental-sensory coordination with sustained periods of concentration.	4	75	Instrument Mechanic, Optical Machinist Tool-and-Die Maker	37.2 56.2 57.2

Note: When rating positions under this element, raters are to consider only the general or "on average" requirement. An occasional or infrequent requirement should not be credited as it cannot be considered as contributing to fatigue.

RATING SCALEEFFORT - PHYSICAL EFFORT

Physical Effort	Degree	Points	Bench-Mark Position Descriptions	Page
The work generally requires some physical effort, such as intermittent standing or walking, or handling of light-weight objects or controls.	1	15	General Labor Supervisor Fork-Lift-Truck Operator Leather Worker, Prosthetics Sign Painter Carpenter Supervisor Inspector of Construction, Small Projects Superintendent, Maintenance	2.2 14.2 26.2 30.2 54.2 62.2 65.3
The work generally requires moderate physical effort, such as standing or walking where only limited periods of relief are possible, or handling of moderate-weight objects or controls.	2	30	Labor Supervisor, Park Maintenance Motor-Grader Operator Cut-off-Saw Operator Ammunition Assembler and Maintainer Oil-Burner Repairer Electrician, Airport Grain-Cleaner Supervisor	5.2 17.2 21.2 31.2 40.2 47.2 58.3
The work generally requires considerable physical effort, such as frequent climbing, working from ladders, working in difficult positions, or handling of medium-weight objects.	3	45	Helper, Trades Laborer, Roads and Grounds Farm Hand, Livestock Plasterer Ammunition Supply Worker Refrigeration Mechanic Sheet-Metal Worker	3.1 4.1 9.2 29.2 33.2 41.2 53.2
The work generally requires great physical effort, such as frequent handling of heavy-Height objects.	4	60	Mortar Mixer Metal Fabricator, Marine Aids Power Line Repairer	7.1 46.2 48.2
The work generally requires extreme physical effort, such as continual handling of heavy-weight objects.	5	75	Air-Hammer Operator	1.1

Note: When rating positions under this element raters are to consider only the general or "on average" requirement. An occasional or infrequent requirement should not be credited as it cannot be considered as contributing to fatigue.

RESPONSIBILITY

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

Definition

"Responsibility for safety of others" refers to the responsibility for the exercise of care by self or subordinates to avoid or prevent injury to other people.

Notes to Raters

The degrees of the Resources element that are assigned to the benchmark positions have been established by the comparative ranking of key positions in the occupational group. In selecting a tentative rating for a position under this element the following characteristics of the work are to be considered:

1. The nature and value of the resources used, e.g. stationary and portable machines, material handling equipment, hand tools, personnel, material and supplies.
2. The extent to which the description of the position implies accountability.
3. The consequences of an error in judgment.
4. Raters are not to take into account indirect effect on services provided but are to consider only the immediate effect on the work being performed.

Any one of these characteristics is only an indication of the degree of responsibility in this element, and the whole context within which the work is performed is to be considered. 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.

Ratings above Degree 2 of the Resources Element for non-supervisory positions in most sub-groups should be considered atypical, i.e., the assignment of higher ratings should be warranted by significant and continuing responsibilities which are not characteristic of the occupation.

In rating positions under the "Responsibility for the safety of others" element, considerations should include:

1. The probability and extent of injury to others.
2. The nature of the work, the work area and the proximity of other workers.
3. The significance or frequency of the activities being considered.
4. The responsibility of other workers to observe normal safety precautions.
5. The degree of control that can be exercised during the performance of the work assuming that all safety devices and procedures for which the position is not directly responsible are in order.

RATING SCALERESPONSIBILITY - RESOURCES

Responsibility for Resources	Degree	Points	Bench-Mark Position Descriptions	Page
Limited	1	20	Helper, Trades Mortar Mixer Cut-off-Saw Operator Leather Worker, Prosthetics Painter Ammunition Assembler and Maintainer	3.2 7.1 21.2 26.2 28.2 31.2
Moderate	2	46	General Labor Supervisor Gardener Heavy-Equipment Operator Lockmaster Ammunition Inspection Supervisor Aircraft Welder/Machinist Automobile Mechanic Electrician, Airport Sheet-Metal Worker	2.2 11.2 15.2 23.3 32.2 36.2 42.2 47.2 53.2
Significant	3	72	Farm Labor Supervisor Production Plant Manager Carpenter Supervisor Construction Officer	10.2 25.3 54.2 61.2
Major	4	100	Bridge Operations Supervisor Regional Construction Supervisor Shop Superintendent, Marine Aids Superintendent, Maintenance	20.2 63.2 64.3 65.3



RATING SCALE

RESPONSIBILITY - SAFETY OF OTHERS

Responsibility for the Safety of Others	Degree	Points	Bench-Mark Position Descriptions	Page
There is little possibility of injury to others.	1	10	Laborer, Roads and Grounds Farm Hand, Livestock Cut-off-Saw Operator Leather Worker, Prosthetics Plasterer Refrigeration Mechanic Automobile Mechanic Machinist	4.2 9.2 21.2 26.2 29.2 41.2 42.2 56.2
Reasonable care is required to prevent injury to others.	2	23	Helper, Trades Labor Supervisor, Park Maintenance Truck Driver, Light Shop Estimator, Automotive Electrician, Airport Pipefitter Body Repairer Construction Officer	3.2 5.2 19.2 43.2 47.2 51.2 52.2 61.2
Special care is required to prevent injury to others.	3	36	Farm-Labor Supervisor Mobile-Crane Operator Ammunition Supply Worker Maintenance Supervisor, Plumbing and Heating Grain-Cleaner Supervisor	10.2 16.2 33.2 50.2 58.3
Extreme care is required to prevent injury to others.	4	50	Bridge Operations Supervisor Production Plant Manager Ammunition Inspection Supervisor Regional Construction Supervisor Superintendent, Maintenance	20.2 25.3 32.2 63.2 65.3

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, dirt, fumes, obnoxious odors, noise, vibration, dampness, grease, or to extremes of heat and cold;
- the required wearing of cumbersome protective clothing or equipment;
- the frequent or regular requirement to be absent from home overnight or for extended periods.

"Hazards" refers to the requirement to work under conditions that result in unavoidable exposure by the employee to injury or sickness, although the normal safety precautions have been taken.

Notes to Raters

In rating positions under the Environment element only those conditions that make the work disagreeable are to be considered. Raters are to consider the frequency and duration of the exposure as well as the severity of the disagreeable conditions.

In rating positions under the Hazards element only the hazards that are probable are to be considered, and not those that are only remotely possible. Raters are to consider the frequency of unavoidable exposure and the probable severity of the injury.

Positions in which the probability of injury is minimal will be assigned the lowest value under the Hazards Element.

RATING SCALE

WORKING CONDITIONS – ENVIRONMENT

Environment	Degree	Points	Bench-Mark Position Descriptions	Page
<p>Good working environment with few disagreeable conditions. Work may be slightly dirty or involve infrequent exposure to some disagreeable condition.</p>	1	12	<p>General Labor Supervisor                      Gardener                      Fork-Lift-Truck Operator                      Truck Driver, Light                      Bridge Operations Supervisor                      Leather Worker, Prosthetics                      Shop Estimator, Automotive                      Maintenance Supervisor,                      Plumbing and Heating                      Shop Superintendent, Marine Aids</p>	<p>2.2                      11.2                      14.2                      19.2                      20.2                      26.2                      43.2                      50.3                      64.3</p>
<p>Fair working environment, such as frequent exposure to one disagreeable condition or significant exposure to either two or more disagreeable conditions or to one very disagreeable condition.</p>	2	28	<p>Helper, Trades                      Tire Repairer                      Truck Driver, Heavy                      Lockmaster                      Oil-Burner Repairer                      Automobile Mechanic                      Carpenter, Maintenance                      Construction Officer</p>	<p>3.2                      8.2                      18.2                      23.3                      40.2                      42.2                      55.2                      61.3</p>
<p>Poor working environment, such as frequent exposure to several disagreeable conditions or to one <i>very</i> disagreeable condition.</p>	3	44	<p>Welder, Combination                      Power-Press Operator                      Plasterer                      Power Line Repairer                      Pipefitter                      Grain Cleaner Supervisor</p>	<p>13.2                      24.2                      29.2                      48.2                      51.2                      58.3</p>
<p>Very poor working environment, such as constant exposure to two or more very disagreeable conditions.</p>	4	60	<p>Air-Hammer Operator</p>	<p>1.2</p>

RATING SCALE

WORKING CONDITIONS - HAZARDS

		Probable Severity of Injury, and Degree					
Frequency of Unavoidable Exposure to Hazards, and Degree		Minor injuries such as cuts, bruises or burns.		"Lost-time" injuries such as serious burns, eye injuries or loss of fingers.		Incapacitating injuries, such as those resulting in serious permanent impairment.	
		A		B		C	
Occasional	1	4/	Page	18/	Page	32/	Page
		General Labor		Helper, Trades	3.2	Helper, Artillery	
		Supervisor	2.2	Tire Repairer	8.2	Gun Crew	34.2
		Gardener	11.2	Heavy Equipment Operator	15.2	Maintenance Mechanic, Marine Aids	38.2
		Motor-Grader Operator	17.2	Lockmaster	23.3	Electrician, Airport	47.2
		Bridge Operations Supervisor	20.2	Airport Maintenance Mechanic	39.2	Grain Weigher	59.2
		Sign Painter	30.2	Pipefitter	51.2		
		Construction Officer	61.3				
Frequent	2	12/		26/		40/	
		Laborer, Roads and Grounds	4.2	Air-Hammer Operator	1.2	Ammunition Inspection Supervisor	32.2
		Lubricator, Automotive Equipment	6.2	Truck Driver, Light Plasterer	29.2	Ammunition Supply Worker	33.2
		Power-Press Operator	24.2	Aircraft Welder/Machinist	36.2	Power Line Repairer	48.2
		Leather Worker, Prosthetics	26.2	Carpenter, Maintenance	55.2	Wei g h i n g Assi s t a n t	60.2
		Oil-Burner					
		Repairer	40.2				
		Body Repairer	52.2				

SUPERVISORY RATING PLAN

This plan is used to measure the continuing responsibility that the incumbent of the position assumes for the work of other 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 quantity and quality of work produced, assigning work, allocating staff, evaluating employee performance, training and disciplining staff, and making recommendations on equipment or staff requirements.

"Number of employees supervised" refers to the total number of employees for whom the incumbent of the position exercises supervisory control directly or through subordinate supervisors.

Notes to Raters

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

The supervision of an apprentice, or of a trade or craft helper providing direct support to a skilled worker by performing some trade or craft functions of lesser complexity, is not to be rated under the supervisory plan.

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 supervised by the incumbent of the position.
3. Partial person-years resulting from 1 and 2 will be rounded to a whole number, i.e., less than .50 is rounded down; .50 or greater is rounded up.

In rating positions all the characteristics contained in each of the degree definitions must be considered. Generally, the criterion for the assignment of a degree is that the supervisory responsibilities of the position being rated must encompass most of the characteristics of that degree.

The degree coordinates assigned to a position by means of this plan will determine the differential that will be applied to the basic rate for the position.

The rating scale shows the degree coordinates assigned for the supervision of various numbers of employees under each of the five degrees. These degrees, which are designated only as A, B, C, D and E on the Rating Scale, are defined in the following table.

SUPERVISION

Nature of Supervisory Responsibility and Degree		Bench-Mark Position Descriptions	Page
Takes the lead as a working member of a group; explains work to new workers; sets the work pace for the group.	A	Senior Upholstery Instructor Grain Weigher	27.2 59.2
Takes the lead as a working member of a group; assigns and explains work; helps workers to solve work problems by giving detailed instructions and demonstrations; motivates the group to meet specific quality and quantity standards.	B	Labor Supervisor, Park Maintenance Lockmaster Grain-Cleaner Supervisor	5.2 23.3 58.3
Directly, or through subordinate supervisors, assigns jobs, using a knowledge of individual worker capabilities; directs subordinates in the choice of work methods; reviews work in progress; accepts or rejects completed work; co-ordinates the work of individuals to meet schedules; implements a staff training program; proposes disciplinary action; appraises employee performance.	C	General Labor Supervisor Farm Labor Supervisor Ammunition Inspection Supervisor Maintenance Supervisor, Plumbing and Heating Carpenter Supervisor	2.2 10.2 32.2 50.3 54.2
Allocates staff and assigns jobs through subordinate supervisors; co-ordinates the work of subdivisions of the group to meet schedules and assigns priorities to the work within the subdivisions; reviews adequacy of work performance standards and recommends changes as required; implements a staff training program ensuring the optimum development of workers in the group; discusses performance of workers with subordinate supervisors; recommends changes in the number or classification of positions; formally recommends disciplinary action.	D	Shop Superintendent, Marine Aids	64.3
Co-ordinates, through subordinate supervisors, the work of a number of large groups or shops within a major complex; allocates staff to meet production requirements; establishes or modifies work schedules; develops or modifies a staff training program; reviews production records and recommends changes as required.	E	Superintendent, Maintenance	65.3

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					
1-5	2				
6-20	3				
21-40	4				
41-70	5				
71-100	6				
over 100	7				

Note: Supervisory responsibility of the nature represented by the shaded coordinates is unusual.

BENCH-MARK INDEXIn Sub-group and Alphabetical Order

<u>SUB-GROUP</u>	<u>BENCH-MARK POSITION NO.</u>	<u>DESCRIPTIVE TITLE</u>	<u>TOTAL POINTS</u>	<u>SUPERVISORY RATING</u>
Elemental	1	Air-Hammer Operator	291	
	2	General Labor Supervisor	314	C3
	3	Helper, Trades	259	
	4	Laborer, Roads and Grounds	215	
	5	Labor Supervisor, Park Maintenance	284	B2
	6	Lubricator, Automotive Equipment	200	
	7	Mortar Mixer	236	
	8	Tire Repairer	221	
	9	Farm Hand, Livestock	335	
Manipulating	10	Farm Labor Supervisor	439	C2
	11	Gardener	385	
	12	General Maintenance Worker	377	
	13	Welder, Combination	474	
	14	Fork-Lift-Truck Operator	273	
Machine Driving Operating	15	Heavy-Equipment Operator	417	
	16	Mobile-Crane Operator	391	
	17	Motor Grader Operator	378	
	18	Truck Driver, Heavy	343	
	19	Truck Driver, Light	295	
	20	Bridge Operations Supervisor	559	C3
Machine Operating Controlling	21	Cut-Off-Saw Operator	279	
	22	Lock Operator	308	
	23	Lockmaster	388	B2
	24	Power-Press Operator	449	
	25	Production Plant Manager	712	C3
Precision Working	26	Leather Worker, Prosthetics	423	
	27	Senior Upholstery Instructor	491	A1
Painting and Construction Finishing	28	Painter	397	
	29	Plasterer	433	
	30	Sign Painter	393	
Ammunition Working	31	Ammunition Assembler and Maintainer	524	
	32	Ammunition Inspection Supervisor	627	C3
	33	Ammunition Supply Worker	342	
	34	Helper, Artillery Gun Crew	289	
Aircraft Maintaining	35	Aircraft Mechanic	661	
	36	Aircraft Welder/Machinist	582	

<u>SUB-GROUP</u>	<u>BENCH-MARK POSITION NO.</u>	<u>DESCRIPTIVE TITLE</u>	<u>TOTAL POINTS</u>	<u>SUPERVISORY RATING</u>
Instrument Maintaining	37	Instrument Mechanic, Optical	558	
	38	Maintenance Mechanic, Marine Aids	670	
Machinery Maintaining	39	Airport Maintenance Mechanic	538	
	40	Oil-Burner Repairer	426	
	41	Refrigeration Mechanic	519	
Vehicle and Heavy Equipment Maintaining	42	Automobile Mechanic	519	
	43	Shop Estimator, Automotive	553	
	44	Farm-Machinery Mechanic	629	
	45	Ground-Support-Equipment Mechanic	568	
Boilermaking Blacksmithing	46	Metal Fabricator, Marine Aids	577	
Electrical Installing and Maintaining	47	Electrician, Airport	652	
	48	Power Line Repairer	618	
Pipefitting	49	High-Pressure Pipefitter/Welder	653	
	50	Maintenance Supervisor, Plumbing and Heating	698	C4
	51	Pipefitter	554	
Sheet-Metal Working	52	Body Repairer	472	
	53	Sheet-Metal Worker	554	
Woodworking	54	Carpenter Supervisor	632	C3
	55	Carpenter, Maintenance	562	
Metal Machining	56	Machinist	627	
	57	Tool-and-Die Maker	671	
Grain Handling and	58	Grain-Cleaner Supervisor	526	B2
Weighing	59	Grain Weigher	464	A1
	60	Weighing Assistant	367	
Construction Inspecting	61	Construction Officer	651	
	62	Inspector of Construction, Small Projects	593	
	63	Regional Construction Supervisor	786	C4
	64	Shop Superintendent, Marine Aids	770	D6
	65	Superintendent, Maintenance	786	E7

BENCH-MARK INDEX

In Ascending Order of Point Values

<u>DESCRIPTIVE TITLE</u>	<u>BENCH-MARK POSITION NO.</u>	<u>TOTAL POINTS</u>
Lubricator, Automotive Equipment	6	200
Labourer, Roads and Grounds	4	215
Tire Repairer	8	221
Mortar Mixer	7	236
Helper, Trades	3	259
Fork-Lift-Truck Operator	14	273
Cut-Off-Saw Operator	21	279
Labour Supervisor, Park Maintenance	5	284
Helper, Artillery Gun Crew	34	289
Air-Hammer Operator	1	291
Truck Driver, Light	19	295
Lock Operator	22	308
General Labour Supervisor	2	314
Farm Hand, Livestock	9	335
Ammunition Supply Worker	33	342
Truck Driver, Heavy	18	343
Weighing Assistant	60	367
General Maintenance Worker	12	377
Motor-Grader Operator	17	378
Gardener	11	385
Lockmaster	23	388
Mobile-Crane Operator	16	391
Sign Painter	30	393
Painter	28	397
Heavy-Equipment Operator	15	417
Leather Worker, Prosthetics	26	423
Oil-Burner Repairer	40	426
Plasterer	29	433
Farm Labour Supervisor	10	439
Power-Press Operator	24	449
Grain Weigher	59	464
Body Repairer	52	472
Welder, Combination	13	474
Senior Upholstery Instructor	27	491
Refrigeration Mechanic	41	519
Automobile Mechanic	42	519
Ammunition Assembler and Maintainer	31	524
Grain-Cleaner Supervisor	58	526
Airport Maintenance Mechanic	39	538
Shop Estimator, Automotive	43	553

<u>DESCRIPTIVE TITLE</u>	<u>BENCH-MARK POSITION NO.</u>	<u>TOTAL POINTS</u>
Pipefitter	51	554
Sheet-Metal Worker	53	554
Instrument Mechanic, Optical	37	558
Bridge Operations Supervisor	20	559
Carpenter, Maintenance	55	562
Ground-Support-Equipment Mechanic	45	568
Metal Fabricator, Marine Aids	46	577
Aircraft Welder/Machinist	36	582
Inspector of Construction, Small Projects	62	593
Power Line Repairer	48	618
Ammunition Inspection Supervisor	32	627
Machinist	56	627
Farm-Machinery Mechanic	44	629
Carpenter Supervisor	54	632
Construction Officer	61	651
Electrician, Airport	47	652
High-Pressure Pipefitter/Welder	49	653
Aircraft Mechanic	35	661
Maintenance Mechanic, Marine Aids	38	670
Tool-and-Die Maker	57	671
Maintenance Supervisor, Plumbing and Heating	50	698
Production Plant Manager	25	712
Shop Superintendent, Marine Aids	64	770
Regional Construction Supervisor	63	786
Superintendent, Maintenance	65	786

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 1

Level: 4

Sub-group: Elemental

Descriptive Title: Air-Hammer Operator

Basic Point Rating: 291

Supervisory Rating: n/a

Summary

Under a construction foreman/woman, operates an air-hammer to break and drill holes in earth, rock and concrete at a restoration site; and performs related duties.

Duties% of Time

Operates an air-hammer to drill holes in or break frozen earth, hard pan, concrete and rock for maintenance and excavation activities and installation of anchor bolts, by

- laying out hole locations,
- selecting the appropriate tool, such as bull point, chisel or spade, and
- guiding and manipulating, and using the weight of the hammer to loosen material.

95

Performs related duties, such as lifting and carrying hoses, tools and other equipment.

5

SpecificationsDegree/  
PointsSkill and Knowledge

Basic knowledge - The work requires communicating with the supervisor and making simple measurements to lay out hole locations.

1 / 24

Comprehension and Judgment - Operating instructions are explicit. The selection of the appropriate tool requires little judgment.

1 / 36

Specific Vocational Training - The work requires a short demonstration by the supervisor in how to connect and use an air-hammer.

1 / 25

Effort

Mental - Operating an air hammer requires some eye-hand co-ordination, but no precision.

1 / 15

Physical - The work requires continual lifting, guiding, wrenching and prying with tools that weigh up to 40 kg. The vibration necessitates a tight grip on tools. Work is often done in a confined space such as a trench.

5 / 75

Degree/  
Points

Responsibility

Resources - There is responsibility for the operation of sturdy equipment and tools that are not easily damaged.

1 / 20

Safety of Others - There is little possibility of injury to others; flying particles when breaking concrete or rock would normally constitute a nuisance to others who may be in the area rather than a definite hazard as protective gear is available.

1 / 10

Working Conditions

Environment - Most of the work is performed outside in all kinds of weather and involves constant exposure to high levels of noise and vibration. The work also requires the wearing of goggles and ear protectors.

4 / 60

Hazards - There is exposure to injuries such as serious back strain when operating and lifting and carrying heavy pneumatic hand tools and air hoses. The wearing of protective equipment reduces the possibility of more serious injuries.

B2 / 26

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 2

Level: 4  
Sub-group: Elemental

Descriptive Title: General Labour Supervisor

Basic Point Rating: 314  
Supervisory Rating: C3Summary

Under the maintenance shop supervisor, supervises a pool of labourers to provide a variety of services in and around public buildings within a city and its environs; and performs related duties.

Duties

% of Time

Supervises approximately 13 labourers engaged in such tasks as repairing roads, digging trenches, carrying stores items and building materials, moving office furniture, and performing preparatory labour tasks for skilled workers, by

90

- allocating workers to specific areas of work and assigning jobs,
- instructing in the appropriate work methods,
- checking work in progress and on completion,
- reporting in writing on breaches of discipline and proposing disciplinary action,
- training subordinates in safety measures and ensuring that these are followed, and
- evaluating employee performance.

Performs related duties, such as keeping records of work performed and tools issued, preparing time estimates for minor projects, and assuming responsibility for proper maintenance and care of hand tools and equipment, such as air compressors.

10

SpecificationsDegree/  
PointsSkill and Knowledge

Basic Knowledge - The work requires a knowledge of simple arithmetic to estimate time used on various jobs and to keep records thereof. It also requires reading simple drawings and writing brief reports on breaches of discipline and minor grievances.

3 / 56

Comprehension and Judgement - The work requires a knowledge of the use of simple hand and power tools and the work methods and procedures used in a variety of general labour tasks. Work is performed according to written or oral instructions. There is a requirement to organize the group to the best advantage and solve routine work problems.

3 / 93

Specific Vocational Training - The work requires experience in work methods used in repairing roads and in carrying out general labour tasks, in supervising labourers, and in operating and servicing equipment.

2 / 50

Effort

Mental - The work generally requires a normal level of attention with short periods of concentration when estimating time needed to perform work and when writing reports.

1 / 15

	<u>Degree/ Points</u>
Physical - The work requires intermittent standing and walking to supervise the work of employees at different work sites throughout the area.	1 / 15
 <u>Responsibility</u>	
Resources - There is responsibility for the effective use and custody of sturdy equipment and tools by the group. Failure to properly control the work group may result in delays in completing work and the ineffective use of personnel resources.	2 / 46
Safety of Others - The work requires reasonable care to ensure that workers comply with safe working practices.	2 / 23
 <u>Working Conditions</u>	
Environment - The work requires occasional exposure to inclement weather.	1 / 12
Hazards - There is occasional exposure to injuries such as minor cuts, bruises and abrasions when checking work in progress.	AI / 4
 <u>Supervision</u>	
The work requires interpreting instructions and assigning work to 13 labourers, deciding upon and instructing in work methods, evaluating employee performance, checking work for completion, and proposing disciplinary action.	C3

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 3

Level: 3

Sub-group: Elemental

Descriptive Title: Helper, Trades

Basic Point Rating: 259

Supervisory Rating: n/a

Summary

Helps qualified trades personnel to maintain, repair and install equipment or structures at a military establishment; and performs related duties.

Duties% of Time

Helps to maintain, repair, install and alter equipment, buildings and building fixtures,  
by

90

- lifting, carrying, holding and positioning parts, materials and equipment,
- passing tools, parts and materials as required,
- cutting holes in wood, concrete floors and walls, using common hand tools, sledges and air-hammer,
- erecting and dismantling scaffolding and trench shoring,
- digging and filling in excavations, using shovel and pick, and
- measuring, cutting and bending pipe and conduit, using hand tools and pipe bender.

Performs related duties, such as cleaning, oiling and putting away shop tools and equipment, and sweeping and mopping workshop floors.

10

SpecificationsDegree/  
PointsSkill and Knowledge

Basic Knowledge - The work requires communicating with trades personnel and making simple measurements when cutting holes and cutting and bending pipe.

1 / 24

Comprehension and Judgement - The work is performed exactly as instructed by qualified trades personnel.

1 / 36

Specific Vocational Training - The work requires experience in a shop to become familiar with the tools and materials used by skilled workers.

2 / 50

Effort

Mental - The work generally only requires normal attention; a higher level of attention is occasionally required when measuring pipe preparatory to cutting or bending.

1 / 15

Physical - The work requires frequent lifting of materials and equipment, such as lumber and pipe, and working in cramped or awkward positions.

3 / 45

Degree/  
Points

Responsibility

Resources - There is responsibility for cleaning and storing tools. The work is performed under close supervision, with little opportunity for error in judgement. 1 / 20

Safety of Others - Reasonable care is required to prevent minor injuries when lifting or moving materials and equipment in close proximity to others. 2 / 23

Working Conditions

Environment - The work generally involves significant exposure to some disagreeable condition, such as noise, heat, dampness or dirt, varying with the nature of the particular job and location of the worksite. 2 / 28

Hazards - There is frequent exposure to minor injuries such as cuts, bruises or sprains from handling tools, materials and equipment and exposure to more serious injury when working from ladders or scaffolding. B1 / 18

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 4

Level: 2  
Sub-group: Elemental

Descriptive Title: Labourer, Roads and Grounds

Basic Point Rating: 215  
Supervisory Rating: n/aSummary

Under a labourer supervisor, carries out various labouring tasks to maintain airport roads, grounds and runways at a Canadian Forces Base; and performs related duties.

Duties% of Time

Maintains roads, grounds and runways, by  
- digging holes and trenches and levelling ground, using shovel, pick and rake, 60  
- shovelling snow away from runway lights and arrester barriers, fire hydrants and walkways, and  
- filling holes in tarmac and roads with patching materials.

Maintains lawns, by 25  
- cutting, seeding, and applying fertilizer, and  
- lifting, carrying and positioning sod.

Performs related duties, such as shovelling refuse from storm and sanitary sewers and sweeping, raking and carrying refuse from parking lots, base grounds and construction projects. 15

SpecificationsDegree/  
PointsSkill and Knowledge

Basic Knowledge - The work requires communicating with the supervisor. 1 / 24

Comprehension and Judgement - Instructions are explicit. Selection of the appropriate hand tool requires little judgement. 1 / 36

Specific Vocational Training - The work requires a short demonstration by the supervisor in the use of hand tools. 1 / 25

Effort

Mental - The work generally requires only normal attention. Working with common tools requires some eye-hand coordination but no precision. 1 / 15

Physical - The work requires frequent digging and shovelling, and lifting and carrying of median-weight loads when sodding lawns and cleaning sewers. 3 / 45

Degree/  
Points

Responsibility

Resources - There is responsibility for the effective use and care of simple hand tools such as shovels, rakes, picks, and brooms. Work is performed under close supervision, with little opportunity for judgement. 1 / 20

Safety of Others - Due to the nature of the work, there is little possibility of injuring other workers. 1 / 10

Working Conditions

Environment - The work is performed outside with exposure to all kinds of weather and there is significant exposure to dirt and less frequent exposure to obnoxious odours. 2 / 28

Hazards - There is frequent exposure to minor injuries such as muscle strains when shovelling and lifting and carrying medium-weight loads. A2 / 12

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 5

Level: 3

Sub-group: Elemental

Descriptive Title: Labour Supervisor, Park Maintenance Seasonal Position

Basic Point Rating: 284

Supervisory Rating: B2

Summary

Under the park maintenance supervisor, leads a group of labourers in the seasonal maintenance of grounds, buildings, roads, jetties, trails and other facilities in a national park; and performs related duties.

Duties

% of Time

Leads a seasonal crew, varying from three to five labourers as assigned, in the maintenance of grounds, buildings, roads, jetties, trails and other park facilities, such as picnic tables and park signs, and participates in the work of the group by:

- explaining the work to be performed and assisting in carrying out the various tasks,
- checking the work in progress for quantity and quality,
- maintaining time sheets for members of work crew,
- ensuring that employees observe safety precautions, particularly when handling powered equipment such as chain saws, and
- ensuring that adequate materials and equipment are available on the worksite.

85

Performs related duties, such as driving a light truck or motor launch to transport employees, tools and materials to job sites, requisitioning materials and tools, completing accident reports and operating a VHF radio installed in the workboat to communicate with park headquarters or mobile units.

15

Specifications

Degree/  
Points

Skill and Knowledge

Basic Knowledge - The work requires preparing material requisitions, maintaining time sheets, completing standardized accident reports and recording time and materials used against various project codes.

2 / 40

Comprehension and Judgement - The work requires a knowledge of the use of simple hand and power tools and of the methods and procedures used to maintain grounds, buildings, trails and other park facilities. Fairly detailed instructions are received but some judgement is required to lead the group and solve routine work problems.

2 / 64

Specific Vocational Training - The work requires some training and experience in maintaining park facilities, driving a light truck, operating a motor launch and in leading a small work force.

2 / 50

Degree/  
Points

Effort

Mental - Overseeing the activities of labourers requires normal attention to ensure work is completed according to instructions. A higher level of mental effort is required for short periods when driving a light truck or operating a motor launch. 1 / 15

Physical - The work requires walking over irregular terrain when engaged in clean-up or maintenance functions at park sites. Greater physical effort is required when assisting in the loading or off-loading of construction materials. 2 / 30

Responsibility

Resources - The work entails responsibility for the effective use and custody of hand tools and materials. Failure to properly control the work-group may result in minor delays in completing the work and the ineffective utilization of a small work force. 2 / 46

Safety of Others - The work entails responsibility for ensuring that safe work practices are followed by the group. The exercise of reasonable care is required when transporting employees short distances by truck or launch within the park. 2 / 23

Working Conditions

Environment - The work is performed out of doors during the summer with occasional exposure to inclement weather. 1 / 12

Hazards - There is occasional exposure to cuts and bruises when performing labouring tasks. A1 / 4

Supervision

The work requires leading a group of three to five seasonal labourers by assigning and explaining work to employees, checking for quantity and quality of work, and solving work problems. B2

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 6

Level: 1

Sub-group: Elemental

Descriptive Title: Lubricator, Automotive Equipment

Basic Point Rating: 200

Supervisory Rating: n/a

Summary

Under the supervision of the shop supervisor, lubricates motor vehicles and automotive equipment and attachments at a Canadian Forces Base; and performs related duties.

Duties% of Time

Lubricates light and heavy motor vehicles and automotive equipment and attachments, by

- greasing or oiling bearings on motor vehicles and automotive equipment and attachments, using a pneumatic grease gun and hand-oiler, and
- checking, draining and replenishing crankcase, transmission and differential lubricant.

85

Performs related duties, such as checking and replenishing the level of fluids in radiators and batteries, and cleaning, greasing and oiling equipment.

15

SpecificationsDegree/PointsSkill and Knowledge

Basic Knowledge - The work requires reading lubrication instructions and communicating with the shop supervisor.

1 / 24

Comprehension and Judgement - The work requires sufficient understanding to service a variety of automotive equipment in accordance with specific oral or written instructions.

1 / 36

Specific Vocational Training - The work requires a short demonstration by the supervisor in the use of shop equipment and lubrication diagrams.

1 / 25

Effort

Mental - The work generally requires a normal level of attention. Eye-hand coordination does not involve precision.

1 / 15

Physical - The work requires continual standing, reaching, and bending when checking lubricant and water levels, when draining and replenishing lubricants, and when manipulating light-weight grease guns and wrenches.

2 / 30

Responsibility

Resources - There is responsibility for the effective use of lubricants and simple tools. There is little opportunity for independent judgement.

1 / 20

Degree/  
Points

Safety of Others - The work normally is performed alone, with little possibility of injuring other workers.

1 / 10

Working Conditions

Environment - There is constant exposure to dirt and/or grease when lubricating vehicles.

2 / 28

Hazards - There **is** frequent exposure to minor injuries such as bruises and abrasions when manipulating hand tools and working around automotive equipment.

A2 / 12

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number. 7

Level: 2

Sub-group: Elemental

Descriptive Title: Mortar Mixer

Basic Point Rating: 236

Supervisory Rating: n/a

Summary

Under the supervision of a construction foreman/woman, operates an electric-powered concrete mixer to prepare mortar for stonemasons and bricklayers, and performs related duties.

Duties% of Time

Mixes various types of mortar with a four-cubic-foot electric-powered mixer, by

- setting up the mixer in a suitable place, securely bracing it against movement and ensuring that water and power are readily available,
- measuring cement, sand, lime, colouring, and water as directed,
- shovelling or dumping measured amounts of specified materials into the mixer, and
- operating the mixer for a specified period and dumping mortar into a wheelbarrow or other container.

75

Performs related duties, such as dismantling walls or other structures, cleaning and storing tools and equipment, and taking mortar to masons or bricklayers.

25

SpecificationsDegree/  
PointsSkill and Knowledge

Basic Knowledge - The work requires a knowledge of elementary arithmetic to prepare various specified mortar mixes; the work does not entail fine measuring.

1 / 24

Comprehension and Judgement - Mixing and measuring instructions are clear and each step is easily understood. There is little requirement for judgement.

1 / 36

Specific Vocational Training - The work requires a short demonstration in operating simple mechanical equipment and combining various quantities of materials.

1 / 25

Effort

Mental - The work generally requires only normal attention. Measurements and mixing times are not critical.

1 / 15

Physical - The work requires the frequent lifting of bags of cement. Greater physical effort is required when moving wheelbarrows of mortar.

4 / 60

Responsibility

Resources - There is little opportunity for independent judgement as the composition of batches is specified by the supervisor.

1 / 20

Degree/  
Points

Safety of Others - No other worker is near and there is no possibility of injury to others.

1 / 10

Working Conditions

Environment - The work requires opening and emptying bags, with consequent periodic exposure to dust. Handling portland cement and lime causes discomfort to exposed hands and soils clothing.

2 / 28

Hazards - There is occasional exposure to injuries such as sprains when handling bags of cement and exposure to more serious injuries when taking wheelbarrows of mortar to masons or bricklayers.

B1 / 18

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 8

Level: 2

Sub-group: Elemental

Descriptive Title: Tire Repairer

Basic Point Rating: 221

Supervisory Rating: n/a

Summary

Under a shop foreman/woman at a Canadian Forces Base, repairs pneumatic tires; and performs related duties.

Duties% of Time

Repairs pneumatic tires, by

90

- locating punctures in tubes or tires by visual observation and immersing them in water,
- removing damaged tires from rims, and tubes from tires, using hand tools and mechanical tire changer,
- sealing punctures in tubeless tires with adhesive material and expansive plug, using hand tools,
- buffing the defective areas of inner tubes, using a scraper,
- patching the tubes with adhesive rubber patches or sealing rubber patches to tubes, using a hot vulcanizing plate, and
- remounting and inflating tires, using hand tools and equipment.

Performs related duties, such as cleaning work area and recording work done.

10

SpecificationsDegree/  
PointsSkill and Knowledge

Basic Knowledge - The work requires reading tire sizes and communicating with the supervisor.

1 / 24

Comprehension and Judgement - The work requires carrying out simple repetitive procedures. Unusual problems are referred for instruction.

1 / 36

Specific Vocational Training - The work requires a short demonstration by the supervisor in the use of shop equipment and in the performance of repetitive tasks.

1 / 25

Effort

Mental - The work requires normal attention. The work tools, methods and procedures are prescribed.

1 / 15

Physical - The work frequently requires lifting medium-weight tires and rims and making repairs from a standing position. There is also an occasional requirement to lift heavy tires and rims.

3 / 45

Degree/  
Points

Responsibility

Resources - There **is** responsibility for the effective use and care of sturdy hand tools and shop equipment. 1 / 20

Safety of Others - The work is normally performed in a separate area, and there **is** little possibility of injury to others. 1 / 10

Working Conditions

Environment - There is continual exposure to dirt from tires and rims. 2 / 28

Hazards - There **is** continual exposure to minor injuries such as cuts, bruises or sprains and exposure to more serious sprains when lifting heavy tires. B1 / 18

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 9

Level: 5

Sub-group: Manipulating

Descriptive Title: Farm Hand, Livestock

Basic Point Rating: 335

Supervisory Rating: n/a

Summary

Under a farm labour supervisor, prepares specially formulated rations for cattle and sheep used as subjects in a research program; feeds animals; cleans pens and cages; keeps records; and performs related duties.

Duties% of Time

Prepares specially formulated rations consisting of such wet and dry ingredients as grains, vitamins, starch, sugar and molasses, to feed cattle and sheep, by

25

- chopping or grinding hay and grains in a hammer mill,
- mixing specified amounts of different ingredients in a feed mixer, and
- compressing feed into pellets and bagging and storing it for subsequent use.

Feeds animals accurately weighed amounts of formulated feeds and measured quantities of water.

25

Cleans holding pens and cages by hand.

25

Records feed and water consumption and weight and volume of urine collected.

15

Performs related duties, such as driving a tractor, performing general maintenance work around buildings and equipment, and assisting the laboratory in scouring and measuring wool samples.

10

Degree/  
Points

SpecificationsSkill and Knowledge

Basic Knowledge - The work requires keeping records of feed and water consumption as well as other research data. It also requires knowledge of arithmetic to mix feed according to formulae.

2 / 40

Comprehension and Judgement - The work requires a good understanding of livestock and the operation of general farm equipment. While most of the work is performed according to instructions and specified procedures and is periodically checked by the supervisor, the operation of mixing equipment entails some judgement.

2 / 64

Specific Vocational Training - The work requires experience in modern livestock handling techniques, in order to provide specialized care to selected animals and normal care to the herd. The work also requires training and experience in driving a farm tractor and operating mixing equipment.

3 / 75

Degree/  
Points

Effort

Mental - The work is performed in accordance with specific instructions and generally requires normal attention. Greater attention is required when operating a farm tractor. 1 / 15

Physical - The work requires frequently lifting bags of feed grain and pellets and performing other chores such as pitching hay. 3 / 45

Responsibility

Resources - While specific instructions cover most of the work, there is responsibility for the use of mixing equipment and for the recording of research data. 2 / 46

Safety of Others - The work is usually performed in relative isolation involving little possibility of injury to others. 1 / 10

Working Conditions

Environment - There is significant exposure to dust and odours. Work is performed inside and outside, and the worker is occasionally subject to temperature variations during winter months. There is exposure to dampness when cleaning holding pens and cages. 2 / 28

Hazards - There is frequent exposure to minor sprains from lifting bags of grain and pellets. A2 / 12

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 10

Level: 7  
Sub-group: Manipulating

Descriptive Title: Farm Labour Supervisor

Basic Point Rating: 439  
Supervisory Rating: C2

Summary

Under an administrative officer at an experimental farm oversees and participates in the cultivation of experimental crops and the maintenance and repair of buildings and equipment at a remote substation; supervises a staff of labourers; maintains, modifies and repairs farm equipment and buildings; keeps records; and performs related duties.

Duties

% of Time

Oversees and participates in the cultivation of experimental crops of hay, cereal, grains, oilseed, vegetables and perennial fruits and berries, by  
- selecting fields and plots and laying out field plans,  
- scheduling and implementing plowing, planting, pruning, watering, fertilizing, harvesting and threshing operations, and  
- keeping records of crop tending practices, crop weights, the quality of production, and weather data. 50

Supervises a staff of farm labourers (four person-years) engaged in cultivating crops and maintaining and repairing buildings and equipment, by  
- instructing employees in work methods, procedures and standards,  
- establishing work priorities,  
- checking work for quantity and quality, and  
- resolving and reporting minor grievances. 20

Maintains and makes minor repairs to tractors, farm machinery, buildings and associated equipment. 15

Performs related duties, such as keeping records of supplies used and received, estimating and requisitioning building materials, selling surplus products and accounting for revenues received, providing information orally and by letter to people in the farming community, operating a variety of mechanized farm equipment, writing weekly reports summarizing activities performed and results achieved, and arranging for major repairs to equipment. 15

Degree/  
Points

Specifications

Skill and Knowledge

Basic Knowledge - The work requires reading instructions and drawings, keeping records, writing weekly reports, and letters to people requesting information. It also requires drawing field and plot plans, determining quantities of seed and fertilizer according to specified ratios, and estimating quantities of parts and material for the maintenance of equipment and buildings.

	<u>Degree/ Points</u>
Comprehension and Judgement - The work requires a good knowledge of the methods and procedures used to cultivate experimental crops and to maintain and repair farm buildings and equipment. Judgement is required when scheduling cultivation operations, when maintaining buildings and equipment within established building allocations, and when providing information to the public. Much of the actual farming is subject to input from individual scientists.	3 / 93
Specific Vocational Training - The work requires training and experience in cultivating a variety of experimental crops, operating a wide variety of farm equipment, maintaining and repairing farm equipment and buildings, and in supervising farm labourers.	4 / 100
<u>Effort</u>	
Mental - The work generally requires a moderate level of attention with frequent periods of concentration in scheduling farming operations, establishing work priorities, solving problems, maintaining records and writing weekly operating reports.	2 / 35
Physical - The work requires intermittent walking and standing when checking work. There is also an occasional requirement to manipulate foot and hand controls on tractors and farm machinery and to work from ladders when maintaining and repairing buildings and equipment.	1 / 15
<u>Responsibility</u>	
Resources - There is responsibility for maintaining and repairing buildings, equipment, tractors and farm machinery, keeping records, and providing information to the public. An error in judgement could result in damage or loss of experimental crops and trees, and the ineffective use of resources.	3 / 72
Safety of Others - Care must be exercised to ensure that safe work practices are used by the group when operating farm machinery, handling chemicals and when working from ladders or stagings.	3 / 36
<u>Working Conditions</u>	
Environment - Although much of the work is performed out of doors, exposure to inclement weather can be controlled. There is exposure to dirt and grease when repairing equipment.	1 / 12
Hazards - As much of the work is of a supervisory nature, probable injuries would be minor. There is exposure to more serious injury when operating mobile equipment or working from ladders.	AI / 4
<u>Supervision</u>	
Due to the remoteness of the substation, approximately 100 km, assignments are general with regard to order or timing. The work entails the planning and scheduling of activities, assigning duties, instructing subordinates in work methods and procedures, reviewing work in progress and upon completion, and appraising subordinates (4 person-years).	C2

## BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 11

Level: 6  
Sub-group: Manipulating

Descriptive Title: Gardener

Basic Point Rating: 385  
Supervisory Rating: n/aSummary

Under a general foreman/woman of works and maintenance at a military establishment, cultivates a variety of ornamental trees, shrubs and plants outside and in a greenhouse; and performs related duties.

Duties% of Time

Cultivates bedding stock, plants, flowers, trees, shrubs and perennial stock in a greenhouse and in park areas adjacent to the building, by 70

- planning work steps required to produce bedding stock, blooms and mature plants at specified times of the year,
- selecting and mixing ingredients, fumigating soil and applying suitable fertilizers to prepare and improve soils for growing plants,
- planting seed, cuttings, root stock and bulbs,
- controlling light, heat and humidity in greenhouse and cold frames to advance or retard plant and bloom development and to protect plant life during development,
- transplanting greenhouse stock to outside beds and recommending the watering and bed maintenance tasks to be performed by unskilled labour, and
- pruning, cleaning and repairing infected or damaged parts of trees, shrubs, and perennial plants to improve their health and appearance.

Performs related duties, such as sketching the layout of flower beds, recommending maintenance programs for lawn and bed areas, initiating purchases of stores such as seed, bulbs, fertilizers, insecticides and gardening tools, and providing advice on ways and means to improve the appearance of grounds. 30

Degree/  
PointsSpecificationsSkill and Knowledge

Basic Knowledge - The work requires a knowledge of arithmetic to estimate quantities of gardening supplies and nursing stock, to plan lawn and ground maintenance programs, and to sketch layout of flower beds. 2 / 40

Comprehension and Judgement - The work requires a thorough knowledge of the techniques used to cultivate a variety of ornamental trees, shrubs and plants and of their decorative characteristics and suitability. Judgement is required in planning layouts, recommending maintenance programs, and planning the production of bedding stock. 3 / 93

Specific Vocational Training - The work requires experience in cultivating and propagating plants, flowers, shrubs, trees and lawns, in order to plan and produce decorative or natural surroundings to established buildings or structures. 5 / 150

Degree/  
Points

Effort

Mental - The work generally requires normal attention when planting and tending to lawns, trees, shrubs and flower beds. 1 / 15

Physical - The work generally requires little physical effort. Greater effort is required when transplanting flowers and pruning shrubbery. 1 / 15

Responsibility

Resources - There is responsibility for cultivating trees, shrubs and plants. Errors in judgement could result in some loss or damage to nursery stock, trees, shrubs and plants. The loss of greenhouse stock could not be replaced until the following year. There is also the responsibility for recommending maintenance programs for lawn and bed areas. 2 / 46

Safety of Others - The work is performed in a greenhouse and garden areas, usually separated from other workers, and consequently there is little possibility of injury to others. 1 / 10

Working Conditions

Environment - Much of the work is performed indoors; personal exposure to disagreeable conditions can, to a large extent, be controlled. 1 / 12

Hazards - There is occasional exposure to minor injuries such as cuts and bruises when using hand tools and handling materials. AI / 4

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 12

Level: 5

Sub-group: Manipulating

Descriptive Title: General Maintenance Worker

Basic Point Rating: 377

Supervisory Rating: n/a

Summary

Under a maintenance supervisor, carries out minor repairs and renovations to frame buildings; constructs cupboards, shelving and other items; prepares and paints new and old interior and exterior surfaces; constructs concrete forms and pours concrete.

Duties% of Time

Maintains and renovates frame buildings and structures, by	25
- replacing rotted or broken portions including studs, siding, window sills, door frames or panes of glass using hand and power tools,	
- patching cracks in plaster,	
- installing and replacing door locks and passage sets,	
- removing and replacing floor tiles,	
- repairing or replacing asphalt roofs, and	
- recommending to the supervisor the extent of repairs needed and estimating the necessary materials.	
Paints new and old exterior and interior surfaces, by	30
- preparing surfaces with hand tools, paint removers and power sander,	
- adjusting consistency of paint with thinner, and	
- applying paint with spray gun, roller or brushes.	
Builds cupboards, shelves and special items of wood such as screen cages and fume cabinets working from supplied sketches, by	30
- estimating sizes to fit the available space and to make the best use of stock size materials, and	
- using a variety of hand tools, portable power tools and stationary shop machines including miter boxes, power saws, band saw and planer.	
Performs minor concrete work, by	15
- building forms for items such as steps and sidewalks,	
- placing reinforcing iron, pouring concrete, and tamping concrete to remove voids or settle coarse aggregates,	
- troweling surfaces by hand, and	
- removing disintegrated parts of foundations and floors and replacing with new concrete.	

<u>Specifications</u>	<u>Degree/ Points</u>
<b>Skill and Knowledge</b>	
Basic Knowledge - The work requires the ability to estimate quantities of materials, the ability to follow instruction and sketches prepared by supervisor or research scientists and sufficient knowledge of shop mathematics to construct forms for steps and sidewalks and effect minor repairs or alterations to wooden structures.	3 / 56
Comprehension and Judgement - The work requires a general knowledge of basic trade fundamentals as well as an understanding of the use of hand and portable power tools and shop machines in repairing and renovating wooden structures and fabricating small wooden items as well as an understanding of the methods of preparing surfaces and applying paint to them. Some judgement is also required in interpreting sketches to determine the size of cupboards and shelves.	2 / 64
Specific Vocational Training - The work requires experience in using hand and shop tools to repair structures and build wooden items, and in preparing surfaces, mixing, and applying paint. The work also requires some experience in using a hand trowel to obtain smooth finishes on cement and plaster surfaces.	3 / 75
<b>Effort</b>	
Mental - The work generally requires a moderate level of attention in laying out, cutting, fitting and assembling work pieces. Attention is required when receiving verbal or written instructions, when interpreting sketches, and when operating power tools.	2 / 35
Physical - The work requires the handling of large pieces of material and the need to work in awkward positions when effecting repairs, installing cupboards and repairing roofs. Work is performed from ladders or scaffolds during painting and occasionally requires handling wheelbarrows of cement.	3 / 45
<b>Responsibility</b>	
Resources - There is responsibility for the efficient use of materials and the proper care of tools. Inadequate planning or technique can lead to waste of own time and materials.	2 / 46
Safety of Others - The work is performed in relative isolation with little possibility of injury to others.	1 / 10
<b>Working Conditions</b>	
Environment - Outdoor work usually is performed in good weather; indoor work involves varying exposure to dust, noise of power tools, and fumes of paints and glues.	2 / 28
Hazards - There is frequent exposure to minor injuries and exposure to more serious injury when working from ladders or scaffolding or when operating power tools and shop machinery.	B1 / 18

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 13

Level: 7

Sub-group: Manipulating

Descriptive Title: Welder, Combination

Basic Point Rating: 474

Supervisory Rating: n/a

Summary

Under the maintenance shop supervisor, maintains and repairs buoys and light-towers using electric-arc, gas-shielded-arc and oxy-acetylene welding equipment; and performs related duties.

Duties% of Time

Maintains and repairs metal parts on buoys and light-towers, including lifting and mooring lugs, aluminum railings, cast aluminum lanterns and battery boxes, and engine bases and castings, according to drawings, work orders and oral instructions, by

- welding defective and replacement parts, using electric-arc or gas-shielded-arc welding equipment,
- welding, brazing, burning and heating defective parts to rebuild, patch, remove or reshape, using oxy-acetylene equipment, and
- positioning, clamping and tack-welding work pieces prior to welding.

95

Performs related duties, such as testing buoys for leaks and welding high-pressure pipe, fuel lines, boiler components and hulls.

5

SpecificationsDegree/  
PointsSkill and Knowledge

Basic Knowledge - The work requires reading simple drawings and work orders. It also requires a knowledge of basic shop mathematics to measure and position work pieces.

3 / 56

Comprehension and Judgement - The work requires a good understanding of the physical properties and uses of material and of established practices in welding, brazing, burning and heating ferrous and non-ferrous items. Judgement is required to measure and position parts and to select appropriate equipment and techniques, and to ensure adequacy of completed work.

3 / 93

Specific Vocational Training - The work requires training and experience in the use of oxy-acetylene, electric-arc, and gas-shielded-arc equipment to weld, braze, cut and shape ferrous and non-ferrous parts and sections.

4 / 100

Effort

Mental - The work requires close attention when positioning work pieces and extended periods of hand-eye co-ordination during welding operations.

3 / 55

Physical - There is a frequent requirement to weld while in awkward work positions and occasionally handle heavy workpieces.

3 / 45

Degree/  
Points

Responsibility

Resources - There is responsibility for the effective use and care of welding equipment. Defective work results in loss of production time and material.

2 / 46

Safety of Others - Reasonable care must be taken to prevent injury to others. Greater care must be taken when welding above other workers.

2 / 23

Working Conditions

Environment - There is frequent exposure to dirt, welding fumes and extreme heat. There is a requirement to wear protective clothing and equipment.

3 / 44

Hazards - The work involves frequent exposure to minor injuries such as burns, cuts and bruises. The wearing of protective clothing and face shields limits the possibility of more serious burns and eye injury.

A2 / 12

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 14

Level: 3

Sub-group: Machine Driving Operating

Descriptive Title: Fork-Lift-Truck Operator

Basic Point Rating: 273

Supervisory Rating: n/a

Summary

Under a supervising storekeeper, operates a fork-lift truck within a warehouse at a supply centre; services the fork-lift; and performs related duties.

Duties

% of Time

Operates a rubber-tired fork-lift truck, with a lifting capacity of three tons and a reach of 18 feet, to place or remove loaded pallets in or from trucks, shipping areas or storage areas, by manipulating throttle, clutch, brake, transmission, steering, and lift controls. 80

Services fork-lift truck, by 10

- checking and replenishing such things as fuel, lubricants, coolant, hydraulic fluid and battery electrolyte, and
- inspecting it for wear, damage and operating faults and reporting defects to the supervisor.

Performs related duties, such as straightening or adjusting stacks of loaded pallets, and assisting in hand-loading pallets. 10

Specifications

Degree/  
Points

Skill and Knowledge

Basic Knowledge - The work requires reading job orders and communicating with the supervisor. 1 / 24

Comprehension and Judgement - The work requires an understanding of the operation and running maintenance of a fork-lift truck and of warehouse procedures. Some judgement is required to recognize and correct unsafely stacked pallets. 2 / 64

Specific Vocational Training - The work requires a short demonstration by the supervisor and experience in the operation and servicing of a fork-lift truck. It also requires knowledge of warehouse layout and stock handling procedures. 2 / 50

Effort

Mental - The work requires attention to load capacities and clearances when operating in congested areas and stacking pallets and a high degree of eye-hand coordination. 2 / 35

	<u>Degree/ Points</u>
Physical - Most of the work is performed from a sitting position and involves the adjustment of easily manipulated hand and foot controls. It occasionally requires assisting in hand-loading of pallets.	1 / 15
 <u>Responsibility</u>	
Resources - There is responsibility for the effective operation and running maintenance of a fork-lift truck. Poor operating practices could result in damage to equipment and stores.	2 / 46
Safety of Others - Reasonable care is required when driving the fork-lift-truck around the warehouse to avoid striking and injuring other employees. Because of speed restrictions and other limitations the probability of serious injury to others is slight.	2 / 23
 <u>Working Conditions</u>	
Environment - The work is normally performed indoors, with exposure to few disagreeable conditions.	1 / 12
Hazards - There is occasional exposure to minor bruises and abrasions.	AI / 4

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 15

Level: 6

Sub-group: MACHINE Driving Operating

Descriptive Title: Heavy-Equipment Operator

Basic Point Rating: 417

Supervisory Rating: n/a

Summary

Under a construction or maintenance supervisor, operates a variety of gasoline - or diesel-powered construction and engineering equipment, such as backhoes, cranes, front-end loaders, graders, rollers, tractors with bulldozer or angledozer blades, mechanical shovels, snow plows and blowers, sprayers and trench diggers for cutting, clearing, moving, spreading, digging, grading, levelling and compacting earth, sand, stone and other materials and for maintaining ditches, roads, runways, firelanes and other structures; performs operator servicing tasks such as cleaning, lubricating and refueling equipment, recording appropriate data on vehicle work sheets and making minor adjustments or repairs to equipment and attachments; and carries out other general maintenance duties.

Duties% of Time

Operates a variety of gasoline - or diesel-powered construction and engineering equipment, by:

75

- driving equipment with mounted or drawn attachments to worksite,
- positioning and stabilizing equipment, if appropriate,
- observing gauges, estimating depth of cut, listening to motor or taking cognizance of other operational characteristics and operating pedals, levers and other controls to start, stop and steer equipment and to raise, lower, tilt, swing, dump or otherwise move attachment.

Performs operator servicing tasks, such as

10

- carrying out specified checks to determine wear, deterioration or other operating irregularities,
- lubricating equipment and adding fuel, coolant and electrolyte,
- cleaning and washing vehicles,
- recording appropriate data on vehicle work sheet, such as operating hours, fuel or lubricant added, and operating defects, and
- making minor adjustments or repairs to equipment and assisting vehicle maintenance personnel in changing attachments.

Carries out other general maintenance tasks, such as erecting and repairing guard rails and markers, placing and removing snow fences, patching broken or eroded pavement and concrete, spraying insecticides, herbicides and other chemicals, and maintaining grounds.

15

	<u>Degree/</u>	<u>Points</u>
<u>Specifications</u>		
<u>Skill and Knowledge</u>		
Basic Knowledge - The work is performed according to oral instructions or written work orders covering the location of the job and the work to be done. The work also entails the observing of various dials or gauges and making simple entries on vehicle work sheets.	1 /	24
Comprehension and Judgement - The work requires a good understanding of the operating characteristics of several types of heavy equipment. The requirement to operate some equipment on varying surfaces, such as slopes, graded curves, shoulders, and rocky or soft ground and the need to continually make operating adjustments to achieve desired results necessitates a significant degree of judgement.		3 / 93
Specific Vocational Training - The work requires training and experience in the operation of several types of heavy equipment with differing functions and varying operational characteristics. The operation of equipment and attachments on irregular terrain or in proximity to other construction requires a high level of expertise.		4 / 100
<u>Effort</u>		
Mental - The operation of heavy mobile equipment with moveable attachments requires a high level of attention and extended periods of eye, hand and foot coordination.		3 / 55
Physical - The handling of different sets of heavy controls requires continual reaching and bending and moving of hands, arms and feet.		2 / 30
<u>Responsibility</u>		
Resources - Responsibility is limited to the use and care of the particular piece of equipment being operated. Poor maintenance, improper use, failure to detect malfunctions could cause damage to equipment and loss of production.		2 / 46
Safety of Others - Much of the work is performed in relative isolation. Care must be exercised when operating certain equipments in close proximity to other workers to prevent serious injury, particularly equipment with highly manoeuvrable attachments.		2 / 23
<u>Working Conditions</u>		
Environment - Work is performed in all types of weather, often in open cab. The operation of heavy equipment entails exposure to high levels of noise and vibration and less frequent exposure to dust.		2 / 28
Hazards - There is occasional exposure to minor injuries when servicing equipment and attachments and exposure to more serious injury from tipping or overturning the vehicle when working on steep banks, side slopes or icy surfaces.		B1 / 18

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 16

Level: 6

Sub-group: Machine Driving Operating

Descriptive Title: Mobile-Crane Operator

Basic Point Rating: 391

Supervisory Rating: n/a

Summary

Under the supervisor of motor transport, operates mobile self-propelled cranes within a dockyard; services cranes and ancillary equipment; and performs related duties.

Duties

% of Time

Operates a variety of mobile, self-propelled cranes with maximum lifting capacity of 45 tons to raise and lower heavy equipment and components into place throughout the dockyard area, by 80

- driving the crane to job sites in the dockyard area,
- positioning crane and placing blocks and outriggers to properly support and stabilize the crane, and
- manipulating the throttle, clutch, brake and other crane controls in response to hand signals from a supervisor or rigger, to control the crane.

Services cranes and ancillary equipment, by 15

- inspecting equipment for wear, damage and operating faults,
- making minor repairs and adjustments,
- cleaning and lubricating equipment,
- changing and adding fuel, oil and coolant, and
- checking and adjusting tire pressures and battery electrolyte level.

Performs related duties, such as recording operating hours in crane log, assembling and adjusting crane components and running gear, including sheaves, pins, booms and wire rope, and directing riggers to assist in the assembly and adjustment of crane components and running gear. 5

Specifications

Degree/  
Points

Skill and Knowledge

Basic Knowledge - The work requires keeping a daily operating log and reporting on mechanical or structural faults noted during the operation of the crane. 1 / 24

Comprehension and Judgement - The work requires a good understanding of the operation and running maintenance of a variety of mobile, self-propelled cranes. The work requires the use of judgement in determining the best crane set-up for making a hoist and in controlling the operation of the crane under varying conditions. 3 / 93

Degree/  
Points

Specific Vocational Training - The work requires training and experience in operating and servicing a variety of cranes to hoist loads up to 40 tons in built-up and congested areas.

3 / 75

Effort

Mental - The work requires continuous attention to load capacities, clearances, grades, wind velocity and momentum. It also requires co-ordination of eyes, hands and feet when manipulating crane and hoisting controls to move loads in confined areas in response to hand signals.

3 / 55

Physical - The work requires long periods of manipulating crane controls. Short periods of greater physical effort are required when assembling and adjusting crane components and running gear.

2 / 30

Responsibility

Resources - There is responsibility for the effective operation and maintenance of the crane and attachments. Poor maintenance, improper use and failure to detect operating faults could cause damage to equipment and loss of production. A miscalculation during a hoist could result in damage to the object being hoisted or to adjacent objects.

2 / 46

Safety of Others - The work requires constant care to prevent serious injury to other workers in close proximity. Hoisting and swinging a load too fast could result in workers being pinned or crushed by the load. The crane and load are moved in response to hand signals from a supervisor or rigger.

3 / 36

Working Conditions

Environment - There is exposure to noise and vibration when operating equipment and occasional exposure to inclement weather.

2 / 28

Hazards - There is some exposure to minor injuries when servicing equipment and making minor repairs and adjustments.

AI / 4

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 17

Level: 5

Sub-group: Machine Driving Operating

Descriptive Title: Motor-Grader Operator

Basic Point Rating: 378

Supervisory Rating: n/a

Summary

Under a construction supervisor at an experimental station, operates a road grader; services grader and attachments; and performs related duties.

Duties% of Time

Operates a rubber-tired, diesel-powered, 25,000-pound road grader to scrape and grade roads, ditches and road shoulders, spread gravel, plow snow and tow stranded vehicles, by

75

- starting the power plant, setting the throttle and manipulating clutch, brake, transmission and steering controls, and
- adjusting controls to regulate the height and angle of the scarifier, scraper blade, mould-board, snow wing or other attachments.

Servics the grader and attachments, by

- inspecting equipment for wear, damage and malfunction, and reporting defects,
- making minor repairs and adjustments,
- changing and adding fuel, lubricants, coolant and hydraulic fluid, and
- cleaning and changing filters.

15

Performs related duties, such as assisting a mechanic in repair work and operating a bulldozer.

10

SpecificationsDegree/  
PointsSkill and Knowledge

Basic Knowledge - The work requires communicating with the supervisor and applying a knowledge of simple arithmetic in making adjustments to the level of the road.

1 / 24

Comprehension and Judgement - The work requires a good understanding of the operation and running maintenance of a heavy road grader. The work requires the use of judgement in selecting the sequence of operations to achieve specified results with a minimum of operating time.

3 / 93

Specific Vocational Training - The work requires training and experience in operating and servicing heavy mobile construction equipment in order to achieve the required grades under varying soil, grade, weather and other conditions.

3 / 75

Degree/  
Points

Effort

Mental - The work generally requires a high level of attention with extended periods of concentration when adjusting foot and hand controls to maintain the grade within an inch of that specified. 3 / 55

Physical - The work requires long periods of manipulating steering and grading controls. Short periods of greater physical effort are infrequently required when assisting in the changing or replacing of heavy grader attachments. 2 / 30

Responsibility

Resources - There is responsibility for the effective use and care of the grader and its attachments. Poor maintenance, improper use and failure to detect malfunctions could cause damage to equipment and loss of production. 2 / 46

Safety of Others - Reasonable care is required where operating the grader under poor visibility conditions or in close proximity to other workers, the operator must follow prescribed safety regulations. Because of the speed of the vehicle serious injuries are unlikely. 2 / 23

Working Conditions

Environment - There is frequent exposure to noise and vibration with less frequent exposure to dust or inclement weather. 2 / 28

Hazards - There is occasional exposure to minor injuries when servicing the grader and attachments. AI / 4

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 18

Level: 5

Sub-group: Machine Driving Operating

Descriptive Title: Truck Driver, Heavy

Basic Point Rating: 343

Supervisory Rating: n/a

Summary

Under a construction supervisor, operates a five-ton-capacity dump truck on general maintenance work in a national park; services the truck and attachments; and performs related duties.

Duties

% of Time

Operates a gasoline-powered dump truck to haul a variety of materials, plow snow and sand roads, by

75

- observing and controlling vehicle loading,
- starting the motor and manipulating throttle, clutch, brake, transmission and steering controls, and
- manipulating levers to raise or lower the dump-body and open and close the tailgate, and to regulate the height and angle of the plow wing and speed of the sand table and spreader.

Services the truck and attachments, by

15

- inspecting it for wear, damage and operating faults, and reporting defects to the supervisor,
- making minor repairs and adjustments, and
- checking and adding fuel, lubricants, coolant, hydraulic fluid and battery electrolyte.

Performs related duties, such as hauling loads of supplies within headquarters area and assisting mechanics in repair work.

10

Specifications

Degree/  
Points

Skill and Knowledge

Basic Knowledge - The work requires communicating with the supervisor to receive instructions and report problems or defects and maintaining vehicle work sheet.

1 / 24

Comprehension and Judgement - The work requires understanding the operation and capabilities of a heavy truck used in the loading, hauling and unloading of a variety of material. Some judgement is required to control the vehicle's speed and make the adjustments necessary to achieve optimum results when using snow-plowing and sanding attachments.

2 / 64

Specific Vocational Training - The work requires experience in driving and servicing heavy trucks and in operating truck-mounted attachments for plowing and sanding activities. The work requires the equivalent of a commercial license.

3 / 75

Degree/  
Points

Effort

Mental - The work generally requires a moderate level of attention. Short periods of concentration are required to manipulate controls when backing into confined areas, when operating in congested traffic, and when plowing or sanding roads within the park under adverse conditions. 2 / 35

Physical - The work requires prolonged periods of manipulating truck and plow controls. Observing and controlling loading operations require the frequent climbing in and out of cab. It also requires lifting heavy objects for short periods when assisting mechanics in repair work. 2 / 30

Responsibility

Resources - There is responsibility for the effective operation and care of the truck and its attachments. Poor maintenance and driving practices result in undue wear and tear on the vehicle components and cause premature repair and replacement. 2 / 46

Safety of Others - Reasonable care is required to prevent injury to others when operating a heavy truck within the park area. Greater care is required when operating in traffic. 2 / 23

Working Conditions

Environment - There is frequent exposure to noise and vibration. The truck cab offers some protection from the elements and from dust. 2 / 28

Hazards - There is occasional exposure to injuries arising from accidents when operating the vehicle under adverse weather conditions within the park area. B1 / 18

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 19

Level: 4

Sub-group: Machine Driving Operating

Descriptive Title: Truck Driver, Light

Basic Point Rating: 295

Supervisory Rating: n/a

Summary

Under the transport officer at a Canadian Forces Base, operates a variety of light trucks or other light vehicles to haul freight and carry personnel; services vehicles; and performs related duties.

Duties% of Time

Operates a variety of rubber-tired, gasoline-powered commercial or military-type vehicles with a load capacity of up to three tons to haul freight and carry personnel, by manipulating throttle, clutch, brake, transmission and steering controls.

80

Services vehicles, by

10

- cleaning and washing them,
- inspecting them for wear, damage and malfunction, and reporting defects to the supervisor,
- making minor repairs and adjustments, and
- checking and adding fuel, lubricants, coolant, hydraulic fluid and battery electrolyte.

Performs related duties, such as checking load against shipping papers or work orders, helping to load and unload vehicles, and cleaning garage and other work areas.

10

SpecificationsDegree/  
PointsSkill and Knowledge

Basic knowledge - The work requires reading shipping papers and job orders and applying a knowledge of adding and subtracting to check load.

1 / 24

Comprehension and Judgement - The work requires sufficient understanding to carry out verbal or written instructions and requires some judgement in their implementation.

2 / 64

Specific Vocational Training - The work requires experience in driving and servicing a variety of commercial and military type vehicles with varying operating characteristics. The work requires the equivalent of a commercial license.

2 / 50

Effort

Mental - The work requires short periods of close attention when driving in congested traffic and under adverse conditions.

2 / 35

	<u>Degree/ Points</u>
Physical - Little physical effort is required to drive light vehicles, but greater physical effort is required for short periods when helping with the loading or unloading of vehicles.	1 / 15
<u>Responsibility</u>	
Resources - There is responsibility for the effective operation and running maintenance of the vehicles driven. Poor maintenance and driving practices cause undue wear and tear to the vehicle components and result in premature repair and replacement.	2 / 46
Safety of Others - Reasonable care is required to prevent injuries to others when driving vehicles in traffic or built-up areas.	2 / 23
<u>Working Conditions</u>	
Environment - Vehicle cabs provide adequate protection from the elements and there are few disagreeable working conditions.	1 / 12
Hazards - There is frequent exposure to injuries arising from traffic accidents when operating a vehicle under adverse traffic and weather conditions. There is also exposure to minor injuries when helping to load and unload vehicles.	B2 / 26

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 20

Level: 9

Sub-group: Machine Operating Controlling

Descriptive Title: Bridge Operations Supervisor

Basic Point Rating: 559

Supervisory Rating: C3

Summary

Under the regional engineer, plans, organizes, operates and directs the 24-hour, 7 days/week operation of a lift bridge to provide passage for channel, rail, highway and pedestrian traffic; supervises, directly and through subordinate supervisors, the activities of a crew operating the bridge and maintaining grounds and buildings; and performs related duties.

Duties% of Time

Plans, organizes, operates or directs the 24-hour operation of the Burlington channel lift bridge to provide safe and unhindered passage for shipping, rail, highway and pedestrian traffic, by	50
- scheduling and implementing running maintenance programs to ensure that the bridge, traffic signals, and mechanical, electrical, and communication equipment are kept in a clean and operative condition,	
- estimating workloads and work time and by controlling overtime, supplies and equipment to achieve effective and economical maintenance,	
- determining work to be done and allocating priority,	
- initiating minor emergency repairs,	
- controlling the recording of all traffic movements and messages to ships,	
- recording and reporting all accidents, incidents and breaches of departmental rules and regulations, and	
- occasionally operating the bridge to cover staff shortages.	
Supervises, directly or through subordinate supervisors, the activities of a crew of 14 engaged in operating the bridge and maintaining grounds and buildings, by	35
- establishing shift schedules and assigning personnel,	
- keeping discipline and ensuring compliance with operating and safety regulations,	
- keeping attendance and other staff records, and	
- establishing informal training programs and work performance standards, appraising work performance and sitting on selection or promotion boards.	
Performs related duties, such as requisitioning stores, checking deliveries, recommending accounts for payment, and keeping operational records.	15

<u>Specifications</u>	<u>Degree/ Points</u>
<u>Skill and Knowledge</u>	
Basic Knowledge - The work requires keeping records of traffic movements, preparing and presenting reports of accidents or infringements of rules and regulations, keeping a stores inventory, and reading line drawings to effect maintenance or minor emergency repairs on bridge equipment, and keeping attendance and other records.	4 / 72
Comprehension and Judgement - The work requires a good understanding of departmental regulations, and operational and maintenance manuals in order to expedite traffic flow and maintain the bridge in a sound operating condition. Judgement is required when taking action to deal with emergencies, in establishing work loads and schedules and in maintaining bridge, grounds and buildings.	4 / 121
Specific Vocational Training - The work requires training and experience in operating and maintaining heavy machinery, in enforcing regulations, and in supervising subordinate operators and helpers where traffic is dense.	5 / 150
<u>Effort</u>	
Mental - While much of the work follows established procedures, attention is required in developing staffing schedules, estimating work loads for minor maintenance and in preparing operating and incidents reports.	2 / 35
Physical - The work generally requires little physical exertion, there is an occasional requirement to climb ladders and traverse narrow catwalks.	1 / 15
<u>Responsibility</u>	
Resources - There is complete responsibility for the proper and effective operation and running maintenance of the bridge and the effective use of personnel.	4 / 100
Safety of Others - Constant care is required to ensure the safe operation of the bridge, including the control of water, rail, highway and pedestrian traffic, and the use of safe work practices by subordinates.	4 / 50
<u>Working Conditions</u>	
Environment - The work environment is generally good with limited exposure to inclement weather.	1 / 12
Hazards - The probability of injury is negligible.	AI / 4
<u>Supervision</u>	
The work requires supervising 14 subordinate shift operators and helpers engaged in operating the bridge and in carrying out running maintenance to the bridge, grounds and buildings, training subordinates in proper techniques, establishing shift schedules, maintaining time sheets, approving leave, appraising performance, resolving disciplinary problems, and enforcing departmental operating regulations.	C3

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 21

Level: 3

Sub-group: Machine Operating Controlling

Descriptive Title: Cut-Off-Saw Operator

Basic Point Rating: 279

Supervisory Rating: n/a

Summary

Under a foundry foreman/woman, sets up and operates a metal-cutting band saw and a power hack saw to trim and section castings and forgings of various metals; sandblasts castings and forgings preparatory to sectioning; maintains sawing equipment; and performs related duties.

Duties% of Time

Sets up and operates power band and hack saws to remove gates and risers from castings and to section castings or forgings for test machining or for metallographic examination, *by*

- selecting a saw according to the size and nature of the material to be cut,
- arranging and setting clamps to hold the casting or forging and the saw at the correct angle and position for cutting,
- controlling the saw speed and feed according to the nature of the material being cut, the thickness of the material and the cutting angle, and
- removing the saw and clamps from the workpiece when the cut is complete.

Sandblasts castings and forgings to remove foreign material or scale before cutting or other operations are performed. 10

Maintains saws by inspecting for damage or defects, changing blades, making adjustments and minor repairs, and cleaning, oiling and greasing. 10

Performs related duties, such as assisting foundry workers in pouring molten metal into moulds. 10

SpecificationsDegree/  
PointsSkill and Knowledge

Basic Knowledge - The work requires the use of simple arithmetic to set up work for multiple cuts. 1 / 24

Comprehension and Judgement - The work requires a basic knowledge of the characteristics of metals and the relationship between the speed of saw and rate of cutting. Judgement is required when setting up the work and adjusting the rate of cutting. 2 / 64

Specific Vocational Training - The work requires a short training period in the set-up, operation and lubrication of metal-cutting saws and experience in mounting workpieces, controlling speed of saw and feed rates and in making minor repairs and adjustments to equipment. 2 / 50

Degree/  
Points

Effort

Mental - The work requires periods of attention when positioning and securing irregularly shaped castings or forgings preparatory to cutting or sectioning. Normal attention is required to control speed of saw and feed rates.

2 / 35

Physical - The work is done from a standing position. Short periods of greater exertion are required to lift and move castings or forgings and to assist in pouring molten metal.

2 / 30

Responsibility

Resources - There is responsibility for the effective use and running maintenance of saws.

1 / 20

Safety of Others - The work is performed in relative isolation and there is little possibility of injury to others.

1 / 10

Working Conditions

Environment - There is frequent exposure to dirt from handling castings. There is occasional exposure to dust while sand blasting or to excessive heat when helping in the foundry.

2 / 28

Hazards - There is occasional exposure to serious cuts when operating the band saw.

B1 / 18

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 22

Level: 4

Sub-Group: Machine Operating Controlling

Descriptive Title: Lock Operator

Basic Point Rating: 308

Supervisory Rating: n/a

Summary

Reporting to the lockmaster, participates in the operation of a lock, controls water levels by removing or replacing logs in a dam, performs minor preventive maintenance on machinery and grounds maintenance; performs other duties.

Duties% of Time

Participates in the operation of a lock station, by

55

- marshalling boats into and out of lock chamber,
- manually opening and closing valves and gates,
- assisting boaters when securing lines to mooring cables,
- watching lines and flow of water to ensure safety of boats and passengers, and
- controlling use of approach wharves.

Maintains water levels and conserves water, by

15

- reading, recording and reporting water levels, and
- removing or replacing stop logs as per lockmaster's instructions.

Maintains machinery, structures and grounds, by

20

- performing daily and weekly cleaning, lubricating, and adjusting as per Standing Orders and Operating and Maintenance Manuals, and
- painting buildings; trimming lawns and shrubs, cutting grass, cleaning day use areas and washrooms.

Performs other duties, such as enforcing regulations, selling permits, and driving departmental vehicles.

10

SpecificationsDegree/  
PointsSkill and Knowledge

Basic Knowledge - The work requires reading standing orders and recording permit sales, traffic statistics and water levels.

2 / 40

Comprehension and Judgement - The work requires an understanding of the standing order instructions relating to the operation of a single chamber lock station. Judgement is required when enforcing regulations.

2 / 64

Specific Vocational Training - The work requires experience in operating and maintaining heavy machinery and enforcing regulations.

2 / 50

Degree/  
Points

Effort

Mental - A moderate level of attention is required when co-ordinating the movement of boats, checking tie-up lines and water rate during lockage and ensuring the safety of the public. 2 / 35

Physical - Work requires manual opening of valves and gates up to 30 times a day. This coupled with the continual standing and walking when marshalling vessels and checking permits requires considerable effort. 2 / 30

Responsibility

Resources - The work is performed under direct and close supervision of a lockmaster who is ultimately responsible for the safe passage of vessels. The work entails responsibility for the safe use of equipment and tools at the station. 1 / 20

Safety of Others - Reasonable care is required when locking boats, performing minor maintenance or when operating grass mowers. 2 / 23

Working Conditions

Environment - Work is performed from April to October which entails exposure to cold, dampness, heat, humidity and rain. 2 / 28

Hazards - There is exposure to lost-time injuries like muscle pulls or sprains from pulling stop logs and from wet, slippery surfaces. B1 / 18

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 23

Level: 6

Sub-group: Machine Operating Controlling

Descriptive Title: Lockmaster

Basic Point Rating: 388

Supervisory Rating: B2

Summary

Under an Area Operations Supervisor, controls the operation of a complex lockstation and an associated swing bridge to permit the passage of vessels; directly, or through subordinates, administers and enforces canal regulations and operational directives; controls the sale and distribution of lockage permits, charts, regulations and publications; carries out minor maintenance on operating machinery, buildings, structures and grounds as well as "winter watch" duties; supervises a small subordinate staff in the seasonal operation and maintenance of the lockstation; and performs related duties, such as operating assigned vehicles and assisting in the maintenance of water levels within the system.

Duties% of Time

Controls the operation of a lockstation, by:	40
- stopping vehicular traffic and opening and closing hand-operated swing bridge as required;	
- operating or directing the operation of manual winches to open and close lockgates and sluice valves in proper sequence;	
- observing the operation of equipment and sequence of water levels;	
- directing boats entering and leaving locks to ensure the safe manoeuvring of vessels;	
- assisting boaters by securing lines to bollards; and,	
- coordinating the activities of subordinates to ensure safe and efficient operation.	
Administers and enforces canal regulations and operational directives, by:	5
- controlling speed of vessels, enforcing swimming regulations, and controlling vehicle parking and the use of approach and mooring wharves;	
- controlling the movements of visiting public;	
- reporting violations of regulations to the appropriate authorities and preparing accident, injury or other reports; and,	
- maintaining communication with local police and fire departments and with the boating and general public, as required, for the effective administration and enforcement of regulations and directives.	
Carries out minor maintenance on operating machinery, buildings, structures and grounds, by:	20
- inspecting, cleaning, lubricating and adjusting machinery;	
- reporting equipment malfunctions and safety hazards;	
- cleaning watchhouse, storeroom, public washrooms and other areas;	
- painting lockgates, buildings and other structures;	
- trimming lawns, cultivating flowers and shrubs, and cleaning litter from grounds and roadways; and	

% of Time

- performing "winter watch" duties, such as removing snow and ice from equipment and pathways, adjusting stop-logs using manually-operated winches and hydraulic gates, carrying out security checks on buildings and equipment, and carrying out off-season maintenance to buildings and facilities.

Controls the sale and distribution of lockage permits, hydrographic charts and canal regulations and publications, by:

10

- checking boats for permits;
- selling permits, charts and publications;
- maintaining appropriate records, such as sales and revenue; and
- ensuring the maintenance of established security procedures.

Supervises, as a working member, a small subordinate staff (two person-years), by:

10

- providing on-the-job training for new employees;
- assigning and checking work;
- maintaining time records;
- preparing performance evaluations;
- administering minor disciplinary actions; and
- recording and reporting infractions.

Performs other duties, such as operating assigned vehicles, assisting in the administration of visitor services and interpretive activities at the station, coordinating the flow of water with the Operations Supervisor and other lockmasters to maintain the level of water throughout the system, and maintaining water-level records.

15

Specifications

Degree/  
Points

Skill and Knowledge

Basic Knowledge - The work requires reading canal regulations and operational directives and explaining them to subordinate staff and the boating public, maintaining a station log, and preparing reports regarding incidents, accidents and equipment malfunctions. The work also requires the maintenance of appropriate records for the sale of permits, charts and publications, the preparation of performance appraisals and the maintenance of water-level records.

3 / 56

Comprehension and Judgement - The work requires sufficient understanding to ensure that lock and bridge operations are conducted in accordance with established procedures. Some judgement is required in controlling the movement of boats, scheduling maintenance activities.

2 / 64

Specific Vocational Training - The work requires training and experience in operating simple equipment in accordance with established practices, in enforcing canal regulations, in dealing with members of the boating public, in maintaining lock equipment and structures, and in supervising subordinate staff.

3 / 75

Degree/  
PointsEffort

Mental - The work generally requires a moderate level of attention with periods of closer attention when controlling the movement of boats entering and leaving the locks, preparing reports, coordinating the activities of subordinates, and when communicating with members of the boating public. 2 / 35

Physical - The work generally requires extended periods of standing and walking. Greater physical effort is required in operating winches and carrying out maintenance duties. 2 / 30

Responsibility

Resources - The work entails responsibility for the effective operation of the lock station, for minor maintenance to sturdy equipment and structures, and for the deployment of a small work force. 2 / 46

Safety of Others - Special care is required in marshalling vessels, safeguarding boaters and visitors, and ensuring that subordinates follow prescribed operating procedures and safe work practices. 3 / 36

Working Conditions

Environment - The work entails exposure to all-weather conditions during the boating season. Exposure to inclement weather during the non-navigation season can be controlled. 2 / 28

Hazards - There is exposure to lost-time injuries, such as muscle pulls or strains, from pulling stop logs and from working on wet and slippery surfaces. B1 / 18

Supervision

The seasonal supervision of a small work force (two person-years) engaged in the operation of a lock station requires: providing on-job training to new employees; coordinating the activities of subordinates when operating locks and swing bridge; assigning maintenance tasks; maintaining time records; preparing performance evaluations; and administering minor disciplinary action. B2

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 24

Level: 7

Sub-group: Machine Operating Controlling

Descriptive Title: Power-Press Operator

Basic Point Rating: 449

Supervisory Rating: n/a

Summary

Under the plate-shop foreman/woman, sets up and operates power presses to trim, punch, notch or otherwise shape metal stock between dies to produce a variety of standardized work having close dimensional and quality requirements.

Duties

% of Time

Sets up and operates power presses to trim, punch, notch or otherwise shape metal stock between dies to produce a variety of standardized work having close dimensional and quality requirements, by: <ul style="list-style-type: none"> <li>- reading work orders, drawings or sketches to determine material, dimensions and set-up requirements,</li> <li>- positioning and aligning dies in press and securing bottom and top sections to bed plate and ram using feeler gauges, shims, templates, bolts and clamps,</li> <li>- adjusting ram stroke to accommodate the particular set of dies and thickness of metal work pieces,</li> <li>- setting stop gauges, stripper and ejecting mechanisms,</li> <li>- setting up and ensuring operation of safety devices,</li> <li>- positioning work piece manually or using hoist and starting press,</li> <li>- verifying quality, hole sizes, dimensions, contours, shape or other aspect to determine conformance of finished or pilot work pieces to specifications,</li> <li>- adjusting ram stroke, dies or stops to correct variances, and</li> <li>- using scale, square, calipers, micrometers, templates and patterns to set up presses and check work.</li> </ul>	100
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Specifications

Degree/  
Points

Skill and Knowledge

Basic Knowledge - The work requires the ability to read work orders, sketches and other less complicated drawings together with a knowledge of mathematics and standard handbook formulas in setting up presses and checking the accuracy of completed work.	3 / 56
Comprehension and Judgement - The work requires an understanding of basic mechanical principles and power press operations. Judgement is required in determining requirements, setting up presses and in checking completed work.	3 / 93
Specific Vocational Training - Considerable on-job training and experience is required to become familiar with presses, dies, set-up and operating methods and materials and to attain desired level of proficiency.	3 / 75

Degree/  
Points

Effort

Mental - The work generally requires a high level of attention with extended periods of concentration when setting up presses and examining finished work pieces. 3 / 55

Physical - The work requires the handling of metal work pieces, using hoists for heavier items. The work also entails a requirement to work in awkward positions when setting-up and adjusting equipment. 3 / 45

Responsibility

Resources - There is responsibility for the set-up and use of power presses and the care and use of measuring devices. 2 / 46

Safety of Others - The movement of large metal plates using hoist, requires the exercise of care to prevent injuries to others in the area. 2 / 23

Working Conditions

Environment - The work entails frequent exposure to high noise levels with less frequent exposure to dirt, dust and grease. The work also requires the use or wearing of a variety of protective devices such as hard hats, gloves, ear plugs, safety shoes and glasses. 3 / 44

Hazards - The work involves frequent exposure to moving objects and sharp edges with the possibility of cuts and bruises. A2 / 12

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 25

Level: 11

Sub-group: Machine Operating Controlling

Descriptive Title: Production Plant Manager

Basic Point Rating: 712

Supervisory Rating: C3

Summary

Under the Assistant Director (Industries) manages a plant engaged in the production of goods for sale to the public sector; supervises a staff of 7 foremen/women and approximately 80 inmates; promotes shop safety, fire prevention and security; and performs related duties.

Duties% of Time

Manages the manufacturing, finishing and packaging operations of a plant engaged in the long run production of such metal and wooden products as steel lockers, modular shelving, filing cabinets and modular furniture, by

65

- establishing, controlling and maintaining the scheduling and placement of workers, material, machines and facilities to satisfy contractual customer requirements and good manufacturing practices,
- establishing and maintaining inventory levels and overseeing the acquisition and inspection of raw materials in accordance with product specifications,
- studying drawings and work orders and examining shop layouts to determine assembly procedures best suited to commercial line production standards,
- implementing procedures for the packaging and protection during shipment of finished products in accordance with client contract specifications,
- maintaining an in-process, staged and final inspection and quality control program to ensure adherence to production schedules, customer specifications and delivery requirements,
- supervising the periodic inventory of materials and work in progress,
- monitoring the accounting and recording of labour and material costs, production output and machine use,
- monitoring machine availability, maintenance programs, die repairs and general mechanical fitness of plant tools and equipment, and
- formulating and submitting for approval annual estimates for machinery, materials, equipment, facilities, tooling and maintenance and operating programs.

Supervises and trains a staff of 7 foremen/women and approximately 80 inmates, by

20

- assigning work to subordinate supervisors and inmates and reviewing its progress,
- assessing the performance and attitudes of staff and recommending training and career development,
- taking disciplinary action with staff and inmates and resolving complaints or grievances,
- conducting regular meetings with supervisors to review production schedules, resolve problems, discuss policy, goals and program progress,
- implementing and controlling on-the-job training for inmate employees, and

% of Time

- monitoring the reporting of skills attainment and work records for inmate employees and determining changes in inmate pay grades.

Promotes shop safety, cleanliness, fire prevention, security, accident prevention and good housekeeping, by: 10

- ensuring that safe work habits in the operation of power machinery, material handling equipment and hand tools are explained and demonstrated,
- monitoring compliance with workshop safety and accident prevention rules and regulations,
- conducting accident prevention and safety meetings with foremen/women and inmate workers,
- inspecting plant premises for cleanliness, good housekeeping and potential hazards, and
- ensuring that staff control the movements of assigned inmates as outlined in standing orders.

Performs related duties such as consulting with material and machine suppliers; resolving customer complaints; recommending improvements to plant facilities and design changes in products, tools and fixtures; and attending safety conferences, production shows and industrial seminars. 5

Degree/  
Points

**Specifications**

Skill and Knowledge

Basic Knowledge - The work requires the interpretation of drawings and specifications, the preparation of material and labour costs and production estimates, the establishment of inventory controls, and the preparation of annual cost estimates for such things as equipment, tooling and maintenance. 6 / 104

Comprehension and Judgement - The work requires a thorough understanding of the principles needed to implement, control, co-ordinate and supervise a manufacturing work group on long-run production; of product and tool design, properties of materials, machinery and equipment required, and of labour relations practices. Judgement is required in assessing the capacity of shops, in establishing and maintaining work schedules and priorities, in maintaining quality control, and in assessing requests for tools, machinery, materials and operating supplies. 5 / 150

Specific Vocational Training - The work requires extensive experience in supervising a plant engaged in the large-scale production of commercial-quality wood and metal products. It requires training and experience in cabinet making and sheet-metal working, in working within institutional regulations and in using behavioral techniques to supervise, through subordinate supervisors, a large group of inmates. 7 / 250

Effort

Mental - The work requires attention in processing and allocating orders to selected shops, in preparing work and shipping schedules, in drafting monthly progress reports covering production and inventories, controlling and coordinating the work flow between shops, interpreting drawings and specifications, in reviewing and verifying shop estimates and requisitions for materials and operating supplies. 3 / 55

Degree/  
Points

Physical - The work is mainly supervisory and entails intermittent walking.

1 / 15

Responsibility

Resources - There **is** responsibility for the effective care and use of plant machinery, tools, equipment and a small staff and for ensuring inventory control of materials used in product manufacture.

3 / 72

Safety of Others - Frequent checks with subordinate supervisors are required to ensure that inmates adhere to safety regulations and that workshops and production machinery are free of potential hazards.

4 / 50

Working Conditions

Environment - The office work area is reasonably quiet and pleasant and there **is** occasional contact with dusty, noisy, dirty and smokey conditions during daily inspection tours.

1 / 12

Hazards - The probability of injury is negligible.

All / 4

Supervision

There **is** the requirement to allocate work to seven subordinate employees, coordinate the work of the subdivisions, review the effectiveness of operations and implement necessary changes. There is also a requirement to implement training programs for subordinate employees and evaluate their performance.

C3

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 26

Level: 6

Sub-group: Precision Working

Descriptive Title: Leather Worker, Prosthetics

Basic Point Rating: 423

Supervisory Rating: n/a

Summary

Under the foreman/woman of the leather shop, fabricates surgical supports and leather prosthetic attachments; installs linings and glues leather to parts of artificial limbs; and performs related duties.

Duties% of Time

Fabricates surgical supports and leather prosthetic attachments such as braces, straps, belts, corsets and harnesses, using such equipment as an electric sewing machine and skiver, by	65
<ul style="list-style-type: none"> <li>- tracing outline of supports and attachments to be produced on leather,</li> <li>- cutting leather according to measurements given or according to standard patterns or diagrams, and</li> <li>- assembling leather parts and sewing them, using a sewing machine, and by stitching elastic inserts and fabric pieces by hand.</li> </ul>	
Installs linings and glues leather to parts of artificial limbs, by	25
<ul style="list-style-type: none"> <li>- cutting the leather to correct shape,</li> <li>- soaking leather in melted paraffin wax, and</li> <li>- applying this to the inside of the socket.</li> </ul>	
Performs related duties, such as fitting leather supports and attachments and verifying their adequacy.	10

SpecificationsDegree/  
PointsSkill and Knowledge

Basic Knowledge - The work requires a basic knowledge of shop mathematics to measure and cut out leather parts according to standard drawings and patterns or according to given measurements.	3 / 56
Comprehension and Judgement - The work requires an appreciation of the purpose of various orthopaedic devices and a thorough knowledge of tools, materials and processes related to precision leather working. Supports and attachments are made according to prescribed specifications or standard patterns, but judgement is exercised in applying various methods of cutting, shaping, stitching and finishing.	3 / 93

	Degree/ Points
Specific Vocational Training - The work requires training and experience in processing, shaping, assembling and fastening leather and fabrics in the production of surgical supports and attachments to prosthetic devices to meet standards of size, fit and appearance.	5 / 150
<u>Effort</u>	
Mental - The work generally requires a high level of attention and eye-hand coordination in laying out, cutting, assembling and fitting prosthetic devices working from standard patterns, diagrams or supplied measurements.	3 / 55
Physical - This is relatively light bench work, requiring intermittent standing and sitting, and working with light-weight items.	1 / 15
<u>Responsibility</u>	
Resources - There is responsibility for the effective use of materials, tools and equipment.	1 / 20
Safety of Others - The work is usually performed at a bench, and there is little possibility of injury to others.	1 / 10
<u>Working Conditions</u>	
Environment - The work is performed under clean factory conditions.	1 / 12
Hazards - There is continual exposure to minor cuts and bruises.	A2 / 12

## BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 27

Level: 8

Sub-group: Precision Working

Descriptive Title: Senior Upholstery Instructor

Basic Point Rating: 491

Supervisory Rating: AI

Summary

Under the Assistant Director Industries, instructs a number of inmates engaged in manufacturing and repairing upholstered furniture to train inmates for successful outside employment; administers the shop; and performs other duties.

Duties % of Time

Instructs inmates employed in the industrial furniture shop to manufacture and repair upholstered products such as furniture and gymnasium equipment, by 75

- assigning work to inmates,
- demonstrating the use of hand and power tools and shop machines,
- designing or modifying the structural framework for upholstered furniture and specifying the methods of assembly,
- instructing inmates in carrying out such operations as stripping old finish, replacing wood or metal parts, webbing, springs and support material and measuring, cutting and installing fabric coverings,
- explaining specialized processes such as those involved in the repair or manufacture of simulated antiques or Canadian products,
- inspecting work at various stages and at completion for quality and adherence to specifications,
- conducting tests in trade theory and practice to assess the progress and training needs of inmates,
- reporting on the development of individuals and counselling them on attitude, conduct and personal problems, and
- proposing disciplinary and classification action.

Administers the shop, by 15

- supervising the work of two other instructors,
- examining manufacturing and upholstery orders, studying drawings and estimating and ordering the materials and supplies required,
- preparing individual and job production reports,
- instituting tool and material controls and instructing inmates in the care and maintenance of equipment, and
- controlling flammable materials and ensuring compliance with fire prevention and safety practices.

Performs related duties such as maintaining production and training records, controlling the movement of inmates and settling disputes. 10

**Specifications**Skill and Knowledge

Basic Knowledge - The work requires reading drawings and specifications, estimating materials, controlling inventory, determining the dimensions of framework, and preparing disciplinary and classification reports. 4 / 72

Comprehension and Judgement - The work requires understanding the principles governing furniture upholstery and refinishing, the properties of materials and the use of shop tools and machines. Judgement is required to establish and maintain production schedules and to determine methods of assembly. 4 / 121

Specific Vocational Training - The work requires training and experience in making, repairing and rebuilding upholstered furniture, in applying special processes such as antiquing, in training others and in using behavioral techniques to instruct and motivate inmates towards self-improvement. 5 / 150

Effort

Mental - The work requires the accurate estimating of time and materials and attention to quality and component parts being worked upon at different points by inmates. Mental effort must be exercised to provide initial and on-going training within the terms of a production schedule. 2 / 35

Physical - The work requires standing and walking while inspecting work in progress and the occasional lifting of pieces of furniture. 1 / 15

Responsibility

Resources - There is responsibility for the effective use of materials in a production environment and for the custody and maintenance of tools and machinery. Errors are normally detected through in-process inspection and can result in loss of time and materials and production delays. 2 / 46

Safety of Others - Care is required to ensure that inmates adhere to safety regulations and good work practices when operating power tools and equipment. 3 / 36

Working Conditions

Environment - Most of the work is performed under good shop conditions. There is occasional exposure to dust and noise. 1 / 12

Hazards - There is an occasional risk of minor injuries when using hand and power tools. AI / 4

Supervision

The work requires explaining the work to two other instructors. AI

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 28

Level: 6

Sub-group: Painting and Construction Finishing

Descriptive Title: Painter

Basic Point Rating: 397

Supervisory Rating: n/a

Summary

Under a maintenance supervisor, applies paint, varnish, stain, enamel or lacquer to provide a high-grade finish to interior and exterior surfaces; prepares surfaces to be painted; and performs related duties.

Duties% of Time

Applies a variety of decorative and protective coatings, such as paint, varnish, stain, enamel or lacquer, to provide a high-grade finish to interior or exterior surfaces, by

70

- selecting premixed paints or preparing paints to match specified colours,
- mixing portions of pigment, oil and thinning and drying substances,
- painting surfaces, using brushes or paint rollers,
- staining, finishing or refinishing furniture or fixtures, and
- simulating wood grain, marble, brick or tile and creating special effects.

Prepares interior and exterior surfaces to be painted, by scraping, sanding, brushing and patching with putty or other fillers.

20

Performs related duties, such as cleaning and storing brushes and rollers, and storing paints and flammable liquids for future use.

10

SpecificationsDegree/  
PointsSkill and Knowledge

Basic Knowledge - The work requires a knowledge of simple arithmetic to calculate proportions and estimate quantities.

2 / 40

Comprehension and Judgement - The work requires a thorough knowledge of paints and their properties, of blending techniques, and of painting equipment. The work is performed according to established practices and instructions, but requires judgement in applying paints to achieve special effects.

3 / 93

Specific Vocational Training - The work requires training and experience in mixing, matching, blending and applying paint materials to surfaces and in finishing furniture to produce a high-grade finish.

4 / 100

Effort

Mental - The work requires exercising normal care in mixing paints to obtain the proper blend and a moderate level of attention and eye-hand coordination to obtain an appropriate finish.

2 / 35

	Degree/ Points
Physical - The work entails considerable reaching and stretching and a frequent requirement to work from ladders or stagings or in awkward positions.	3 / 45
<u>Responsibility</u>	
Resources - There is responsibility for the effective use and care of paints and brushes.	1 / 20
Safety of Others - Because of the nature of the work there is little possibility of injury to others.	1 / 10
<u>Working Conditions</u>	
Environment - The work causes discomfort from fumes while painting in enclosed spaces and occasionally requires wearing a protective mask.	2 / 28
Hazards - There is a possibility of falling when working from ladders or scaffolds, which could result in serious injury. There is exposure to health damaging fumes when using lead-base paints.	B2 / 26

## BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 29

Level: 7

Sub-group: Painting and Construction Finishing

Descriptive Title: Plasterer

Basic Point Rating: 433

Supervisory Rating: n/a

Summary

Under the masonry foreman/woman, repairs and constructs plaster walls and ceilings in public buildings; creates decorative or special surfaces; installs or replaces lath and corner beading; joints gypsum panels; and performs related duties.

<u>Duties</u>	<u>% of Time</u>
Repairs and constructs plaster walls and ceilings in buildings to produce finished surfaces, by	60
- mixing plaster according to specifications,	
- spreading plaster over lath or masonry base, using hawk and trowel,	
- smoothing with darby and float to attain uniform thickness,	
- roughening undercoat with scraper to provide bond for second coat, and	
- applying finishing (white) coat.	
Creates decorative or special textures or effects in the finish coat, by	10
- marking it with trowel, brush or sponge, and	
- using a wooden template to form curved surface.	
Installs gypsum or metal lath, by	10
- nailing and fitting lath to wooden supports, and	
- placing and securing corner beading.	
Joints gypsum panels by taping, filling and sanding them to a smooth finish.	10
Performs related duties, such as making and repairing openings in walls for other trades, and making stucco repairs.	10

<u>Specifications</u>	<u>Degree/</u> <u>Points</u>
<u>Skill and Knowledge</u>	
Basic Knowledge - The work requires a knowledge of simple arithmetic to calculate proportions, estimate quantities, and measure and cut lath.	2 / 40
Comprehension and Judgement - The work requires a thorough knowledge of the properties of lime, cement and various aggregates, and the reasons for using certain formulae for particular purposes. Work is performed according to established practices, but requires some judgement in applying materials to achieve special results.	3 / 93

	Degree/ Points
Specific Vocational Training - The work requires training and experience in preparing walls to receive plaster, in mixing and applying plaster materials in order to produce a high-grade finish having the specified stability and decorative effect and in installing dry wall, metal lath and corner beading.	4 / 100
 <u>Effort</u>	
Mental - Some of the work requires normal attention. Greater attention is required to apply "white" coats, finish corners and angles, run baseboards, mouldings and cornices, and apply special finishes.	3 / 55
Physical - The work requires considerable effort when working from a ladder or scaffold, in holding a hawk for extended periods, when applying plaster to ceilings and when working in awkward positions.	3 / 45
 <u>Responsibility</u>	
Resources - There is responsibility for using materials to the best advantage to meet the requirements of the specifications. Defective work could result in limited loss of material and the worker's time.	1 / 20
Safety of Others - Due to the nature of the work and the material and tools handled, there is little possibility of injury to others.	1 / 10
 <u>Working Conditions</u>	
Environment - There is exposure to lime and wet mortar, which causes discomfort to exposed hands and soils clothing.	3 / 44
Hazards - There is frequent exposure to falls while working from a ladder or scaffold.	B2 / 26

## BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 30

Level: 6

Sub-group: Painting and Construction Finishing

Descriptive Title: Sign Painter

Basic Point Rating: 393

Supervisory Rating: n/a

Summary

Under a paint shop foreman/woman, plans the layout for and paints signs; and performs related duties.

Duties% of Time

Paints and maintains training and administrative signs on wood, metal, glass and other surfaces, by

85

- planning the layout of letters, symbols and graphic illustrations according to general directions and sketches,
- preparing surfaces to be painted, using sandpaper and filler material and applying base coats of paint,
- selecting, matching and mixing paint and solvents to obtain colour requirements,
- sketching or tracing outlines of letters and symbols and handlettering in the appropriate colour and style, using a variety of brushes and processes, and
- smoothing and cleaning finished work, applying clear coats to protect or enhance finished products.

Performs related duties, such as selecting and estimating amounts of material required for assignments, proposing layout and colour to obtain stated objectives; lettering in gold leaf; drawing, painting, or enlarging visual aids; making plates for silk screen processing; and cleaning and storing brushes, tools and paint materials.

15

SpecificationsDegree/PointsSkill and Knowledge

Basic Knowledge - The work requires a knowledge of arithmetic to calculate proportions, to estimate quantities and to lay out letters and symbols to meet spacing and style requirements.

3 / 56

Comprehension and Judgement - The work requires an understanding of the principles of sign design and a thorough knowledge of paints, their properties and blending techniques. The work is performed according to established work practices but requires considerable judgement in planning and proposing layouts and in selecting colour, and style and size of letters.

4 / 121

Specific Vocational Training - The work requires training and experience in mixing and applying colours, laying out work, applying gold leaf, in freehand lettering to produce high quality work, and in employing silkscreen painting processes.

4 / 100

Degree/  
PointsEffort

Mental - The work generally requires a high level of concentration and attention to detail, appearance and balance when making layouts and doing freehand lettering. 3 / 55

Physical - The work requires intermittently standing and sitting at a work bench using light-weight materials and tools. 1 / 15

Responsibility

Resources - There is responsibility for the effective use and care of tools and materials. Defective work results in loss of the worker's time and limited loss of material. 1 / 20

Safety of Others - The work is usually performed at a bench and there is little possibility of injury to others. 1 / 10

Working Conditions

Environment - The work environment is generally good. There is minor exposure to paint fumes. 1 / 12

Hazards - The probability of injury is negligible. AI / 4

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 31

Level: 8

Sub-group: Ammunition Working

Descriptive Title: Ammunition Assembler and Maintainer

Basic Point Rating: 524

Supervisory Rating: n/a

Summary

Under a leadhand, examines, repairs, modifies, assembles, breaks down and disposes all types of ammunition to ensure that serviceable stocks are maintained; and performs related duties.

Duties% of Time

Examines, repairs, modifies, assembles, breaks down and disposes of all types of ammunition, such as gun cartridges and their components, torpedoes and their components, demolition stores, pyrotechnics, smoke stores and small arms, to ensure that serviceable stocks are maintained, by

- prefabricating non-explosive items such as cardboard primer tubes, sealing discs and cloth bags,
- weighing black powder charges and by measuring, cutting and typing cordite propellant charges for cartridge assembly,
- fuzing and defuizing cartridges, projectiles and other explosive stores, using approved apparatus,
- examining stores for physical condition, recording the state of serviceability, and ensuring that they are correctly labeled and sealed,
- removing and replacing components to repair or modify the stores,
- conducting electrical continuity or pressure tests,
- adjusting the weight of propellant charges to meet specifications,
- filling explosive cavities, using approved fillers,
- scraping, brushing and wiping items to remove corrosion or explosive dust,
- venting explosive items and boxes to remove explosive gases,
- inspecting, gauging and testing a variety of explosive stores to determine defects and sentence of the stores,
- preparing and packing unserviceable and dangerous explosive stores, to ensure safety in handling, transport and storage,
- preparing fuzes, detonators and projectiles for proof firing, using approved apparatus, and by preparing and firing a mortar as directed,
- burning, demolishing, or assisting in the dumping at sea of over-age, obsolete or otherwise unserviceable explosive-filled stores, and
- disconnecting and connecting sections of torpedoes, rockets and rocket launchers.

95

Performs related duties, such as rendering explosive items inert to provide instructional or drill stores, and participating in fire-fighting drills.

5

<u>Specifications</u>	<u>Degree/ Points</u>
<u>Skill and Knowledge</u>	
Basic Knowledge - The work requires reading departmental instructions and manuals, and detailed drawings, and applying a knowledge of shop mathematics to interpret readings of test instruments.	4 / 72
Comprehension and Judgement - The work requires a thorough understanding of depot standing orders, safety regulations and fire-fighting procedures. Although all steps in the work processes are specifically described, judgement is required to gauge tension or pressure when fitting parts.	3 / 93
Specific Vocational Training - The work requires on-the-job training and experience in all the specialized techniques applied in the laboratories, in the proper and safe methods of handling explosive stores, in the use of precision gauges and tools, and in specialized fire-fighting techniques.	5 / 150
<u>Effort</u>	
Mental - The work requires close attention when disassembling or assembling explosive stores, with eye-hand co-ordination when gauging stores items.	3 / 55
Physical - The work requires continual standing and handling of light-weight objects, with the occasional requirement to lift heavy objects.	2 / 30
<u>Responsibility</u>	
Resources - The work entails responsibility for the effective use of testing and other shop equipment.	1 / 20
Safety of Others - Detailed work procedures and safety regulations must be strictly followed to prevent serious injury to fellow workers.	3 / 36
<u>Working Conditions</u>	
Environment - The work requires conforming to restrictions that represent loss of personal freedom, such as restricted movement and restrictions on dress and behavior. There is occasional exposure to obnoxious fumes.	2 / 28
Hazards - There is constant exposure to serious incapacitating injuries resulting from explosions.	C2 / 40

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 32

Level: 10

Sub-group: Ammunition Working

Descriptive Title: Ammunition Inspection Supervisor

Basic Point Rating: 627

Supervisory Rating: C3

Summary

Under a depot safety officer, supervises a group of ammunition inspectors engaged in quality and safety inspecting, sentencing, proofing and testing of explosive weapons and ancillary stores; enforces depot safety regulations; and performs related duties.

Duties% of Time

Supervises a group of eight ammunition inspectors engaged in inspecting, sentencing, proofing and testing explosive weapons and ancillary stores, by

75

- programming proof operations,
- allocating inspectors to inspection areas,
- interpreting quality standards from specifications and directives,
- patrolling inspection areas to oversee inspections,
- instructing in work methods,
- checking on proofing and sentencing on a sample basis,
- reporting on infractions, and
- screening reports, evaluating quality of work, and providing guidance to inspectors.

Enforces depot safety regulations, by

15

- interpreting instructions for inspectors,
- patrolling inspection areas to spot potential hazards and unsafe practices, and ordering corrections, and
- assisting in the investigation of accidents.

Performs related duties, such as acting as range officer as required, investigating ammunition failures, and overseeing the use and care of inspection gauges and instruments.

10

SpecificationsDegree/  
PointsSkill and Knowledge

Basic Knowledge - The work requires reading departmental regulations, manuals and detailed drawings, interpreting quality standards from departmental specifications and directives, and screening and presenting inspection reports. It also requires sufficient knowledge of mathematics to interpret readings of test instruments.

4 / 72

	<u>Degree/</u>
	<u>Points</u>
Comprehension and Judgement - The work requires a thorough understanding of depot regulations, instructions and manuals, with the comprehension needed to identify any departure from established procedures. Judgement is required in reviewing the quality of work to ensure compliance with established standards, screening inspection reports, providing guidance to inspectors, detecting potential hazards and unsafe practices, and assisting in the investigation of accidents.	4 / 121
Specific Vocational Training - The work requires on-the-job training in all the workshop operations performed in the magazine and in all the testing and craft techniques, and experience in supervising under magazine conditions.	6 / 200
<u>Effort</u>	
Mental - The work requires sustained and close attention to work being performed by safety and quality inspectors whose work must conform strictly to defined standards in order to detect potential hazards and unsafe practices.	3 / 55
Physical - The work permits intermittent standing and walking, with the occasional handling of light-weight gauges or instruments.	1 / 15
<u>Responsibility</u>	
Resources - The work entails responsibility for the care and use of inspection equipment and the effective use of personnel.	2 / 46
Safety of Others - Extreme care is constantly required in enforcing safety regulations, to prevent serious or fatal injury to others who are working with explosive stores.	4 / 10
<u>Working Conditions</u>	
Environment - The work requires conforming to procedures that represent loss of personal freedom, such as restricted movement, and restrictions on dress and behavior.	2 / 28
Hazards - There is constant exposure to serious incapacitating injuries resulting from explosions.	C2 / 40
<u>Supervision</u>	
The work requires interpreting instructions and assigning work to eight inspectors, evaluating the quality of work and instructing in work methods, constantly patrolling inspection areas, and proposing disciplinary action.	C3

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 33	Level: 5 Sub-group: Ammunition Working
Descriptive Title: Ammunition Supply Worker	Basic Point Rating: 342 Supervisory Rating: n/a

Summary

Under a senior ammunition worker at a naval magazine, assists in loading and unloading railway cars, trailers, trucks and lighters; assists in the ammunitioning and de-ammunitioning of ships at the magazine jetty; cleans in and around buildings; assists in the checking of ships' returns; acts as brake holder on tractor-drawn trailers; and performs related duties.

Duties

of Time

- Assists in the loading and unloading of railway cars, trailers, trucks and ammunition lighters and in the storage of ammunition in buildings, by
  - physically lifting and carrying packages,
  - moving packages by hand truck, roller conveyor and other means, and
  - stacking packages as instructed.

50
  
- Assists in the ammunitioning and de-ammunitioning of ships at the magazine jetty, by
  - taking and releasing berthing lines, and
  - assisting in the moving of trailers and the moving and fitting of racks.

20
  
- Cleans in and around buildings on the completion of projects, by
  - sweeping up dirt, and
  - carrying lumber and debris from the buildings as instructed.

10
  
- Assists in the checking of ships' returns by checking each empty package to ensure that it is empty.
 

8
  
- Acts as brake holder on trailers pulled singly or in trains by a tractor, by
  - inspecting hitches to ensure safe connections, and
  - applying brakes on grades as necessary to meet safety requirements.

5
  
- Performs related duties, such as operating electric fork-lift trucks, helping to palletize ammunition items, starting and stopping belt conveyors, participating in fire-fighting drills, and attending training lectures and demonstrations.
 

7

Degree/  
Points

Specifications

Skill and Knowledge

Basic Knowledge - The work requires communicating with the supervisor, and reading magazine orders and instructions.

1 / 24

	Degree/ Points
Comprehension and Judgement - The work requires familiarity with mechanical and mobile equipment and sufficient understanding of the nature of the work performed in the magazine to follow all of the standing orders at all times.	2 / 64
Specific Vocational Training - The work requires short demonstrations by the supervisor of a variety of tasks that occur in the handling and transporting of explosive stores and requires training and experience in the operation of fork-lift trucks.	2 / 50
<u>Effort</u>	
Mental - The handling of ammunition requires a moderate level of attention. A higher level of attention is required when operating a fork-lift and when controlling the speed of trailers.	2 / 35
Physical - The work requires the frequent lifting and carrying of medium-weight packages where no dropping or wrenching motion is permitted.	3 / 45
<u>Responsibility</u>	
Resources - The work requires handling ammunition packages under close and constant supervision.	1 / 20
Safety of Others - Detailed work procedures and safety regulations must be strictly followed to prevent injury to fellow workers.	3 / 36
<u>Working Conditions</u>	
Environment - Much of the work is performed outdoors in all types of weather. Working in a magazine requires conforming to procedures that represent loss of personal freedom, such as restricted movement and restrictions on dress and behaviour.	2 / 28
Hazards - There is constant exposure to serious incapacitating injuries resulting from explosions.	C2 / 40

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 34

Level: 3

Sub-group: Ammunition Working

Descriptive Title: Helper, Artillery Gun Crew

Basic Point Rating: 289

Supervisory Rating: n/a

Summary

Under a gun captain at a proofing and experimental establishment, helps in the emplacement, service and maintenance of weapons; and performs related duties.

Duties% of Time

Helps the gun captain in the emplacement, service and maintenance of a variety of weapons at a firing range, by

85

- preparing gun sites and installing weapons for firing,
- assisting in servicing weapons during firing, using jacks, slings and associated tools,
- assisting in cleaning and maintenance of weapons, including disassembling and assembling components and lubricating, painting and applying preservatives, and
- performing cleaning duties around gun sites and observation posts.

Performs related duties, such as loading and unloading rail and road shipments, installing and repairing targets, including armour plate, and searching for and recovering ammunition and projectiles.

15

SpecificationsDegree/  
PointsSkill and Knowledge

Basic Knowledge - The work requires communicating with the supervisor and others and reading official orders and regulations.

1 / 24

Comprehension and Judgement - The work is carried out under direct supervision and as instructed by the gun captain.

1 / 36

Specific Vocational Training - The work requires short demonstrations by the supervisor of a variety of tasks that occur in the operation of artillery and the handling of ammunition.

2 / 50

Effort

Mental - Work procedures are standardized and strictly monitored and require normal attention. A higher level of attention is required when loading and unloading ammunition.

1 / 15

Physical - The work generally requires frequent lifting and moving of materials, equipment and components.

3 / 45

Degree/  
Points

Responsibility

Resources - The work is performed under continuous close supervision, and errors are detected before any damage is caused. 1 / 20

Safety of Others - The work is performed as part of a team effort, and reasonable care is required to prevent minor injuries to others when lifting or moving materials and equipment. Greater care is required when loading and unloading ammunition. 2 / 23

Working Conditions

Environment - The work is normally performed outdoors and is subject to temperature extremes. There is frequent exposure to excessive noise and fumes from gun firings. 3 / 44

Hazards - The work is frequently performed in close proximity to high explosives, but the conditions under which weapons and ammunition are tested are controlled. There is occasional exposure to a high degree of hazard when searching for and flagging explosive items, and when loading or unloading shipments of ammunition. CI / 32

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 35	Level: 11 Sub-group: Aircraft Maintaining
Descriptive Title: Aircraft Mechanic	Basic Point Rating: 661 Supervisory Rating: n/a

Summary

Under a senior aircraft mechanic, inspects, tests, adjusts, reconditions and repairs parts, components and systems of fixed-wing aircraft; carries out the duties of a flight engineer; and performs related duties.

Duties% of Time

Inspects fixed-wing aircraft undercarriage, flaps, hydraulic and fuel systems, fuselage, centre section, mainplane, ailerons, elevators, rudders, de-icing and anti-icing systems, oxygen and heating systems, and controls and cables for wear, damage, leaks and security, using departmental inspection sheets, hand tools and test equipment.	10
Removes, disassembles, cleans, repairs, adjusts and re-assembles aircraft and engine controls, and hydraulic, fuel, vacuum, de-icing, electrical and instrument systems, using hand tools and equipment.	10
Repairs fuselage, wings, control surfaces, wheels, undercarriage, flaps, de-icer boots, cowlings, shrouds and propellers, using sheet-metal brake and shear equipment, hydraulic press, power cut-off saw, oxy-acetylene welder, and other tools and equipment.	10
Removes power eggs from aircraft and disassembles, cleans and reconditions all power egg components, except engine and propeller mechanisms, using hand tools and equipment.	10
Rebuilds power eggs with new or overhauled components and replaces engines, wiring, piping and engine accessories and control linkages, using hand tools and equipment.	10
Repairs and alters fabric, wood, metal and plastic components of aircraft interiors, using hand tools and equipment. Replaces worn or defective bushings, rivets, skin, fittings and window glass and seals, using hand tools.	10
Tests and adjusts replaced power eggs to ensure that the engine is running properly at idling, cruising and full-power settings before flight testing, using test equipment and hand tools.	5
Tests hydraulic systems and examines metallic components for fractures or surface defects, using test equipment.	5
Performs related duties, such as certifying that aircraft and components are airworthy before flight, charging aircraft batteries, balancing aircraft wheels, and recording aircraft inspections, component changes and repairs in the aircraft log book.	20

	<u>Degree/ Points</u>
<b><u>Specifications</u></b>	
<b><u>Skill and Knowledge</u></b>	
Basic Knowledge - The work requires reading difficult aircraft drawings and departmental and manufacturers' manuals and regulations in carrying out mechanical, electrical and structural repairs. The work also requires a knowledge of mathematics, including elementary geometry, to lay out work and calculate dimensions and angles.	5 / 88
Comprehension and Judgement - The work requires a thorough understanding of the principles of aircraft controls and instrument systems, and the techniques, tools, shop equipment, testing equipment, and procedures used to inspect, test, adjust, modify, recondition and repair fixed-wing aircraft parts, components, systems, fixtures and fittings. The work also requires judgement while interpreting detailed blueprints and modification drawings and test equipment indicators, detecting equipment faults, carrying out inspections, adjustments, and repairs in accordance with prescribed standards, and certifying the airworthiness of aircraft, components and systems.	5 / 150
Specific Vocational Training - The work requires training and experience in the use of testing instruments, shop equipment, and repair techniques sufficient to hold a valid certificate and endorsements in the adjustment, recondition, repair and inspection of a variety of fixed-wing aircraft and their components.	6 / 200
<b><u>Effort</u></b>	
Mental - The work requires a high level of attention with frequent periods of concentration when laying out work and when inspecting, testing, adjusting and repairing aircraft components and systems.	3 / 55
Physical - There is a frequent requirement to climb and work from ladders and scaffolding when inspecting, testing, adjusting and repairing aircraft components and systems.	3 / 45
<b><u>Responsibility</u></b>	
Resources - There is responsibility for the effective care of the instruments and equipment used to carry out mechanical, electrical and structural repairs to aircraft.	2 / 46
Safety of Others - Reasonable care is required to prevent injuries to other workers in the area when moving heavy components.	2 / 23
<b><u>Working Conditions</u></b>	
Environment - The work is normally carried out under shop conditions, but there is frequent exposure to the noise of aircraft engines and occasional exposure to inclement weather when testing, adjusting and repairing aircraft components and systems.	2 / 28
Hazards - The work involves frequent exposure to injuries resulting from falls off ladders and scaffolding. The wearing of protector head sets reduces the possibility of serious ear damage due to the noise of aircraft engines.	B2 / 26

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 36

Level: 9

Sub-group: Aircraft Maintaining

Descriptive Title: Aircraft Welder/Machinist

Basic Point Rating: 582

Supervisory Rating: n/a

Summary

Under the machine-shop crew chief, welds and fabricates primary structures, power plant components and ancillary parts to repair fixed-wing and rotary-wing aircraft; and performs related duties.

Duties% of Time

Welds primary structures, power plant components and ancillary parts, such as exhaust stacks and intensifier tubes on fixed-wing and rotary-wing aircraft, by	60
- operating and guiding electric-arc, oxy-acetylene and heliarc welding equipment,	
- laying out and securing components and parts, and	
- cleaning dirt and corrosion from metal surfaces, by hand or using a grinding machine.	
Fabricates aircraft bushings, fittings and primary structures such as brackets and fairings, by	20
- turning components and parts on a machine lathe,	
- cutting and shaping primary structures, using sheet metal brake, shear, and power cut-off saw,	
- grinding surfaces and drilling holes, using bench grinder and drill press,	
- welding components and parts, and	
- annealing welded assemblies, using heat treating equipment.	
Performs related duties, such as welding and fabricating parts of aircraft ground support equipment, including tow bars, work stands, ladders and towing dollies, and checking work for conformance with specifications.	20

SpecificationsDegree/PointsSkill and Knowledge

Basic Knowledge - The work requires reading structural drawings. It also requires a knowledge of mathematics, including elementary geometry, to lay out work and fabricate a limited variety of metal parts.	4 / 72
Comprehension and Judgement - The work requires a thorough understanding of the techniques, hand tools, shop machines and procedures used to lay out, weld and fabricate aircraft primary structures, power plant components and ancillary parts. The work also requires judgement in reading blueprints, drawings and technical manuals, selecting materials, welding rods, welding temperatures and amperages, and checking completed work for conformance with specifications.	4 / 121

	<u>Degree/</u> <u>Points</u>
Specific Vocational Training - The work requires training and experience in carrying out electric-arc, oxy-acetylene and heliarc welding processes, in laying out work, and in setting up and operating a variety of machining and metal-working machines.	5 / 150
 <u>Effort</u>	
Mental - The work generally requires a high level of attention with frequent periods of concentration when laying out work, positioning parts, fabricating components with shop machines, welding aircraft primary structures, power plant components and ancillary parts, and when checking work for conformance with specifications.	3 / 55
Physical - There is a frequent requirement to work from ladders and scaffolding and to weld aircraft components and parts from a difficult position.	3 / 45
 <u>Responsibility</u>	
Resources - There is responsibility for the effective use and care of workshop machines, tools and equipment.	2 / 46
Safety of Others - The work requires reasonable care to prevent injuring others when welding from ladders and scaffolding and when fabricating components and parts in the shop.	2 / 23
 <u>Working Conditions</u>	
Environment - There is frequent exposure to heat and fumes when welding and there is a frequent requirement to wear protective clothing and equipment.	3 / 44
Hazards - The work involves frequent exposure to injuries resulting from falls from ladders and scaffolding. The wearing of protective shields and goggles reduces the possibility of serious eye damage while welding.	B2 / 26

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 37

Level: 9

Sub-group: Instrument Maintaining

Descriptive Title: Instrument Mechanic, Optical

Basic Point Rating: 558

Supervisory Rating: n/a

Summary

Under the foreman/woman of the instrument shop, tests, adjusts, modifies and repairs precision optical instruments and mechanical equipment, using precision-measuring and test equipment and precision machine tools; and performs related duties.

Duties% of Time

Tests and adjusts precision optical instruments and mechanical equipment such as telescopes, binoculars, theodolites, transits, draughting implements, motion picture projectors and vacuum and pressure gauges, using collimator, pressure test apparatus, multimeter, surface plates, adapters, dial indicator, telescopic gauge, calipers and micrometers. 35

Rebuilds, cleans and fits precision optical instruments and mechanical equipment, using lens grinder and buffer, lens drying oven, dessicating apparatus, drill-press, jeweller's lathe, circular glass cutter, brazing and soldering tools, and solvents and lubricants. 30

Refinishes precision optical instruments and mechanical equipment, using bluing, bronze and paint. 20

Performs related duties, such as engraving and etching identification data, recording hours worked on jobs, requisitioning parts, and servicing shop tools and equipment. 15

SpecificationsDegree/  
PointsSkill and Knowledge

Basic Knowledge - The work requires reading drawings and technical manuals. It also requires a knowledge of elementary algebra and geometry in order to lay out work or calibrate instruments. 5 / 88

Comprehension and Judgement - The work requires a thorough knowledge of the principles of physics as they apply to optics and of the use of precision testing instruments. Judgement is required in reading manuals and in testing, adjusting and rebuilding optical instruments. 5 / 150

Specific Vocational Training - The work requires training and experience in testing, fitting, repairing and calibrating a wide variety of precision optical and mechanical instruments to precise tolerances. 5 / 150

Degree/  
Points

Effort

Mental - The work generally requires close attention in inspecting instruments to determine the extent of repair necessary, and precise hand-eye co-ordination in fabricating minute parts and in calibrating instruments to strict tolerance. 4 / 75

Physical - This is light bench work requiring intermittent standing and sitting. There is occasional eye strain while working, using loupes. 1 / 15

Responsibility

Resources - There is responsibility for the effective use and care of precision tools and equipment. 2 / 46

Safety of Others - The work is performed at a bench, with little possibility of injury to others. 1 / 10

Working Conditions

Environment - The work is performed in ideal working conditions. 1 / 12

Hazards - There is frequent exposure to minor cuts, burns or bruises and to eye strain. A2 / 12

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 38

Level: 11

Sub-group: Instrument Maintaining

Descriptive Title: Maintenance Mechanic, Marine Aids

Basic Point Rating: 670

Supervisory Rating: n/a

Summary

Under a senior marine aids technician, installs, inspects, maintains, adjusts, modifies, repairs and overhauls mechanical, electrical and electronic equipment and components of aids to marine navigation and mechanical, electrical, water, heating and other domestic equipment used in buildings and structures housing navigational aids and their attendants; and performs related duties.

Duties% of Time

Installs, maintains, adjusts, modifies, repairs and overhauls diesel-powered electric generator and air compressor units, using lathe, valve grinder, valve refacer, and honing and ridge reaming equipment, precision-measuring instruments such as micrometers, feeler gauges, calipers, tachometer, thermometer and pressure gauge, and hand tools.

40

Installs, maintains, adjusts and repairs in the field, mechanical, electrical and electronic components of automatic and semi-automatic aids to marine navigation, such as gas- or electrically-operated buoys, revolving lights, electronic fog detectors and fog signals, using hand tools and precision-testing equipment such as voltmeter, ammeter, ohmmeter and recording instruments.

35

Installs, maintains and repairs domestic heating, water, sewage and electrical equipment and systems, including power distribution systems, in buildings and structures that house navigational aids and their attendants, using standard trade tools.

15

Inspects and keeps records on the condition and maintenance of light and fog stations.

5

Performs related duties, such as maintaining and repairing outboard engines, a motor vehicle and a mobile crane and estimating costs of repair and overhauls.

5

SpecificationsDegree/  
PointsSkill and Knowledge

Basic Knowledge - The work requires reading technical manuals, mechanical drawings, and electronic circuit diagrams. It also requires a knowledge of elementary algebra and geometry to lay out work and effect equipment repairs and overhauls.

5 / 88

Degree/  
Points

Comprehension and Judgement - The work requires a thorough understanding of the principles that apply to internal combustion engines and related component systems and a knowledge of the techniques, hand tools, equipment and measuring instruments used to install, maintain, modify, adjust, repair and overhaul a wide variety of machines and equipment. The work also requires an understanding of symbols used in electronic circuitry. Judgement is required to identify, diagnose and repair equipment operating faults in the absence of shop facilities or technical assistance while in the field.

5 / 150

Specific Vocational Training - The work requires training and experience in the maintenance, repair and overhaul of diesel engines and a variety of electronic, electrical and mechanical equipment, working to precise tolerances.

6 / 200

Effort

Mental - The work requires a high level of attention with frequent periods of concentration when trouble shooting, repairing and overhauling diesel engines, and electrical, mechanical and electronic components of navigation aids.

3 / 55

Physical - The work frequently requires working in awkward positions when installing, repairing and overhauling aids to navigation, diesel-electric generators and air compressor units, and domestic heating, water, electric and sewage systems. There is a requirement to lift and manoeuvre heavy objects and an occasional requirement to climb poles or towers.

3 / 45

Responsibility

Resources - There is responsibility for the effective use and care of spare parts, tools and equipment.

2 / 46

Safety of Others - The work is performed mainly in relative isolation from other people.

1 / 10

Working Conditions

Environment - There is frequent exposure to dirt, noise, obnoxious odours and inclement weather. The work also requires extended absences from home.

3 / 44

Hazards - There is occasional exposure to falls when working on power poles and towers and exposure to accidents, such as drowning, when transferring to and from vessels in rough seas.

C1 / 32

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 39

Level: 8  
Sub-group: Machinery Maintaining

Descriptive Title: Airport Maintenance Mechanic

Basic Point Rating: 538  
Supervisory Rating: n/aSummary

Under the mechanical maintenance supervisor, carries out preventive maintenance and repair tasks on machinery and mechanical equipment at an international airport; and performs related duties.

Duties% of Time

Carries out preventive maintenance and repair tasks on machinery and mechanical equipment, including water pumps, baggage conveyor systems, automatic passenger doors, air compressors, and heating and ventilating systems, by

85

- inspecting mechanical equipment to observe performance and to check operation against equipment manuals and drawings,
- adjusting parts of equipment and control instruments, using hand tools,
- starting equipment to test its performance,
- dismantling equipment to gain access to and remove defective or broken parts such as gears, bushings, bolts and bearings, using hand tools,
- drilling, grinding, welding and replacing defective parts such as seals, impellers, gear reducers, rollers, drive trains, tracks, and equipment frameworks, using bench drill-press and grinder and electric-arc and oxy-acetylene welding equipment, and
- aligning equipment and parts such as pumps, gears and drive trains.

Performs related duties, such as regularly cleaning and lubricating equipment and repairing gas beacons, sun louvers and other miscellaneous devices.

15

SpecificationsDegree/  
PointsSkill and Knowledge

Basic Knowledge - The work requires reading moderately difficult drawings and manufacturers' maintenance instructions. It also requires a knowledge of shop mathematics to align equipment and components.

4 / 72

Comprehension and Judgement - The work requires an understanding of the operating principles of the mechanical equipment and controls on which preventive maintenance and repair tasks are performed. Maintenance schedules are planned by the supervisor and manufacturers' equipment manuals are always available, but judgement is required to detect operating faults, to adjust equipment, and to carry out non-scheduled repairs.

4 / 121

Specific Vocational Training - The work requires training and experience in running maintenance and repair techniques for a variety of mechanical equipment, in order to detect and remedy operating faults and to restore equipment to a specified condition.

5 / 150

Degree/  
Points

Effort

Mental - The work requires attention to sequence or alignment of installation and adjustment of parts, with a requirement for concentration while diagnosing faults and operating shop tools and welding equipment. 2 / 35

Physical - There is a requirement to climb ladders and scaffolds and lift heavy parts and to work from a kneeling or stooping position. 3 / 45

Responsibility

Resources - There is responsibility for the effective use of lubricants, spare parts and a variety of shop equipment. 2 / 46

Safety of Others - Reasonable care must be taken while carrying out repairs to prevent minor injury to others when working in areas accessible to the public. 2 / 23

Working Conditions

Environment - There is frequent exposure to dirt and/or grease and occasional exposure to heat while dismantling and repairing equipment. 2 / 28

Hazards - There is occasional exposure to back strain and crushed fingers while dismantling, adjusting and aligning equipment and parts. The wearing of goggles and protective clothing prevents serious burns and eye injuries when welding and when operating shop equipment. B1 / 18

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 40

Level: 6

Sub-group: Machinery Maintaining

Descriptive Title: Oil-Burner Repairer

Basic Point Rating: 426

Supervisory Rating: n/a

Summary

Under a supervising stationary engineer, maintains and repairs oil-fired domestic and industrial oil-burners at a Canadian Forces Base; inspects installations of contractors; and performs related duties.

Duties% of Time

Maintains and repairs domestic and industrial oil burners and related control apparatus

80

*by*

- inspecting the unit and components to determine the cause of the trouble,
- replacing, rebuilding, cleaning and adjusting the unit and components,
- replacing leaky oil tanks and sections of piping, and
- inspecting and testing units at regular intervals for safe and proper operation.

Inspects all units installed by contract and recommends corrective action as required.

10

Performs related duties, such as keeping records of service calls and parts inventory and writing reports on the condition of units, inspecting the condition of a manually operated incinerator, and maintaining portable kerosene construction heaters.

10

SpecificationsDegree/  
PointsSkill and Knowledge

Basic Knowledge - The work requires reading manuals, specifications and diagrams of standard items, to determine extent of repair required and conformance of new installations to contract specifications. The work also requires writing reports on the condition of oil-burner units and maintaining a parts inventory.

4 / 72

Comprehension and Judgement - The work requires an understanding of the operating principles of various types of oil burners and related electrical and thermal controls. Judgement is required to determine the extent of repairs needed.

3 / 93

Specific Vocational Training - The work requires training and experience in troubleshooting and repairing domestic and industrial oil burners and related equipment and in keeping simple records and an inventory of spare parts.

4 / 100

Degree/  
Points

Effort

Mental - The work requires a moderate level of attention to mechanical, electrical and thermal systems to identify faults and adjust equipment for optimum performance. 2 / 35

Physical - The work generally requires bending and stooping when checking and repairing equipment. Greater effort is required when drilling or breaking holes through walls, lifting heavy parts or working in awkward positions. 2 / 30

Responsibility

Resources - There is responsibility for the effective use and care of spare parts and equipment used in servicing heating units. 2 / 46

Safety of Others - The work is usually performed in relative isolation, with little possibility of injury to other people. 1 / 10

Working Conditions

Environment - There is frequent exposure to dirt and/or oil resulting in soiled hands and clothing. 2 / 28

Hazards - The work involves frequent exposure to minor cuts and bruises from using hand tools in confined spaces. A2 / 12

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 41

Level: 8  
Sub-group: Machinery Maintenance

Descriptive Title: Refrigeration Mechanic

Basic Point Rating: 519  
Supervisory Rating: n/aSummary

Under an electrical supervisor, repairs, modifies, or installs low-pressure commercial type refrigeration units at a military establishment; services domestic units, controls, and cabinets; inspects units regularly for preventive maintenance; and performs related duties.

Duties% of Time

Repairs, modifies or installs a variety of low-pressure commercial type refrigeration units, by	50
- checking refrigerant pressures and temperatures to determine the cause of trouble,	
- charging with refrigerant, adding oil and checking the lubrication system,	
- inspecting control equipment and replacing it if necessary,	
- constructing liquid and suction lines, and connecting circulation systems and electrical controls,	
- replacing defective components, including control and expansion valves, and	
- checking the compressor for specified operating pressure and restoring it to factory standards by replacing items such as shaft seals, gaskets, valves and rings.	
Services domestic units, by	20
- adjusting or repairing cabinet hardware, door gaskets and trim,	
- replacing motors, relays and capacitors, and	
- installing complete sealed units in the cabinet.	
Inspects all refrigeration units regularly in a preventive maintenance program, lubricates motors, cleans grilles and condensers, and records necessary repairs.	20
Performs related duties, such as keeping history cards for all units and maintaining tools and test equipment in good condition.	10

Degree/  
PointsSpecificationsSkill and Knowledge

Basic Knowledge - The work requires reading maintenance manuals and diagrams for standard items and applying a knowledge of shop mathematics to interpret readings of test instruments. The work also requires the keeping of maintenance-history cards.	4 / 72
Comprehension and Judgement - The work requires an understanding of the operating principles of refrigeration equipment and thermal, mechanical and electrical controls. Judgement is required when diagnosing faults and carrying out repairs.	4 / 121

	Degree/ Points
Specific Vocational Training - The work requires training and experience in repair techniques for a variety of low-pressure refrigeration and control equipment.	5 / 150
<u>Effort</u>	
Mental - The work generally requires a moderate level of attention. Short periods of concentration are required in trouble shooting and diagnosing faults, and carrying out maintenance functions.	2 / 35
Physical - The work requires using light-weight tools and occasional lifting of heavy articles such as compressors. There is a frequent requirement to work in cramped quarters or awkward positions.	3 / 45
<u>Responsibility</u>	
Resources - There is responsibility for the effective use and care of spare parts, equipment and test instruments used in servicing refrigeration units.	2 / 46
Safety of Others - Servicing a refrigeration unit is generally a one-person job and there is little possibility of injury to other workers.	1 / 10
<u>Working Conditions</u>	
Environment - There is frequent exposure to dirt and grease when effecting repairs.	2 / 28
Hazards - There is frequent exposure to minor injuries such as cuts and bruises resulting from slipping of wrenches and other tools.	A2 / 12

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 42

Level: 8

Sub-group: Vehicle and Heavy Equipment Maintaining

Descriptive Title: Automobile Mechanic

Basic Point Rating: 519

Supervisory Rating: n/a

Summary

Under a garage supervisor, repairs a variety of transport vehicles; repairs or overhauls component parts; inspects vehicles to determine the cause of trouble; installs specialized equipment; and performs related duties.

Duties% of Time

Performs minor and major repairs to power plants and running gear of a variety of transport vehicles, by	60
- disassembling parts and inspecting them for wear, using micrometers, calipers and thickness gauges,	
- replacing defective parts with new components, using mechanics' hand tools, and	
- reassembling units to specified tolerances.	
Repairs or overhauls motor component parts such as carburetors, generators, starting motors, fuel pumps, distributors, pumps and transmissions, by	15
- disassembling, cleaning and inspecting them for wear or breakage, using mechanics' hand tools,	
- reassembling and testing components to required standards, using a variety of specialized test equipment.	
Inspects vehicles to determine the cause of trouble by using specialized test equipment to identify operating faults.	10
Installs specialized equipment in vehicles.	10
Performs related duties, such as keeping records of time and parts, maintaining tools in proper condition, and keeping the work area clean.	5

SpecificationsDegree/  
PointsSkill and Knowledge

Basic Knowledge - The work requires reading mechanical and electrical drawings, measuring clearances and shaft diameters, interpreting readings of electrical test equipment, and following detailed trade manuals.

4 / 72

	Degree/ Points
Comprehension and Judgement - The work requires an understanding of the principles that apply to gasoline and/or propane engines and component systems. Maintenance and repair handbooks are always available, but judgement is required when diagnosing faults, carrying out repairs, and interpreting instructions.	4 / 121
Specific Vocational Training - The work requires training and experience in repair techniques for a variety of automotive equipment in order to determine defects and restore equipment to a specified condition.	5 / 150
<u>Effort</u>	
Mental - The work requires attention to install and adjust parts, with a requirement for concentration while diagnosing faults, using test instruments and while carrying out fine assembly or adjustments.	2 / 35
Physical - The work requires frequent stooping, kneeling and crouching and working from other awkward positions while carrying out repairs.	3 / 45
<u>Responsibility</u>	
Resources - There is responsibility for the effective use of spare parts and a wide variety of equipment.	2 / 46
Safety of Others - There is little possibility of injury to others.	1 / 10
<u>Working Conditions</u>	
Environment - There is frequent exposure to dirt and/or grease.	2 / 28
Hazards - There is frequent exposure to minor cuts and bruises from pulling on wrenches with greasy hands.	A2 / 12

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 43

Level: 9

Sub-group: Vehicle and Heavy Equipment Maintaining

Descriptive Title: Shop Estimator, Automotive

Basic Point Rating: 553

Supervisory Rating: n/a

Summary

Under the garage foreman/woman at a military establishment, examines automotive vehicles to determine mechanical repairs required; verifies adequacy of repair work completed; and performs related duties.

Duties% of Time

Examines automotive vehicles to determine repairs required, by 50

- starting engine and listening for sounds indicating operating faults,
- driving vehicles to note performance of clutch, gears, brakes, and other parts that can be tested in this manner, and
- testing motor timing, cylinder compression, fuel consumption, wheel alignment and steering, using testing equipment.

Carries out road tests to verify that repairs have been completed satisfactorily. 30

Performs related duties, such as writing work orders showing repairs needed and an estimate of the time required to complete repairs, and classifying vehicles for possible condemnation. 20

SpecificationsDegree/  
PointsSkill and Knowledge

Basic Knowledge - The work requires reading mechanical and electrical drawings and test equipment indicators, estimating the time required to complete repairs, and initiating job orders. 4 / 72

Comprehension and Judgement - The work requires a thorough understanding of the principles that apply to gasoline/propane engines and component systems, of the use of test equipment, and of the procedures for diagnosing faults in equipment. Judgement is required to evaluate operating performance, to interpret the readings of test instruments, to estimate time, material and parts required to complete repairs, to classify vehicles for possible condemnation and to evaluate the adequacy of work performed. 5 / 150

Specific Vocational Training - The work requires training and extensive experience in diagnosing and repairing operating faults in a variety of automotive equipment in order to determine extent of repairs required and ensure that equipment is restored to satisfactory condition. 5 / 150

Degree/  
Points

Effort

Mental - The work requires generally a high level of attention with frequent periods of concentration when testing equipment and evaluating the need for or the quality of completed repairs. 3 / 55

Physical - The work occasionally requires standing, stooping and reaching when examining vehicles and when diagnosing equipment faults. 1 / 15

Responsibility

Resources - There is responsibility for initiating job orders that may commit the shop to expenditures of parts and labour and take vehicles out of service. Errors in diagnosing faults or in inspecting repairs could result in loss of production time throughout the shop. 3 / 72

Safety of Others - Reasonable care is required to prevent injuries to others when driving a vehicle in traffic. 2 / 23

Working Conditions

Environment - Environment is generally good; there is occasional exposure to dirt when diagnosing operating faults. 1 / 12

Hazards - The likelihood of injury is minimal. AI / 4

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 44

Level: 10

Sub-group: Vehicle and Heavy Equipment Maintaining

Descriptive Title: Farm-Machinery Mechanic

Basic Point Rating: 629

Supervisory Rating: n/a

Summary

Under the assistant farm manager, repairs, maintains and overhauls machinery, equipment and vehicles on a large correctional farm; supervises an inmate work force; fabricates farm machinery and components; and performs related duties.

Duties% of Time

Repairs, maintains and overhauls a wide variety of farm machinery, equipment and vehicles, including cultivators, plows, combines, balers, harvesters, snowblowers, grain

40

- augers, irrigation equipment, spreaders, silo unloaders and gutter cleaners, by
- developing and implementing an inspection and maintenance program,
- installing, setting-up, adjusting and carrying out modifications to new equipment,
- conducting field inspections of various machines, calibrating and making adjustments to equipment,
- examining machines, motors, gasoline and diesel engines, and mechanical, electrical and hydraulic systems,
- estimating repair costs,
- repairing or replacing defective parts using a wide variety of hand and power tools, testing equipment, shop machines and welding equipment,
- requisitioning replacement parts using equipment manuals and parts catalogues,
- keeping maintenance cost and inventory control records of parts, tools, machinery and equipment,
- conferring with equipment dealers regarding operating problems, design changes, and parts and equipment availability, and
- operating or driving equipment to determine the adequacy of repairs.

Takes custody of, trains and supervises a small inmate work force engaged in minor, routine or less demanding repair and maintenance duties, by

40

- training inmates in the operation and use of a variety of equipment and tools as well as in the maintenance and repair of farm machinery,
- assigning tasks to inmates based on individual adaptability and capability,
- resolving technical problems and counselling inmates on minor disciplinary problems at the worksite, and
- preparing reports and attending meetings on inmate behaviour to consider grading, remission, parole and temporary absences.

Performs related duties such as summarizing activities and writing reports, managing the week-end operation of the farm on a rotational basis, ensuring inmate compliance with established safety and fire prevention programs, and fabricating farm machinery, components and attachments when machine or part is not commercially or readily available.

20

	<u>Degree/ Points</u>
<u>Specifications</u>	
<u>Skill and Knowledge</u>	
Basic Knowledge - The work requires reading drawings and equipment and trade manuals on a wide range of farm machinery, equipment and vehicles, measuring and aligning components, using specialized testing equipment, maintaining inventories, estimating repair and fabricating costs, and preparing reports and summaries.	4 / 72
Comprehension and Judgement - The work requires a thorough understanding of the principles and practices that apply to the operation and maintenance of farm machinery, including gasoline and diesel engines, motors, and the associated mechanical, electrical and hydraulic systems. Judgement is required in developing maintenance schedules, trouble shooting equipment malfunctions, estimating repair costs, assigning duties, preparing reports and attending meetings on inmates' behaviour.	5 / 150
Specific Vocational Training - The work requires training and experience in the maintenance and repair of a wide variety of farm machinery, including heavy mobile equipment, and in the use of hand and power tools, shop machines, testing and calibrating instruments and welding equipment. Experience is required also in establishing maintenance programs, maintaining inventories and in supervising and assessing inmates.	6 / 200
<u>Effort</u>	
Mental - The work generally requires a high level of attention with sustained periods of concentration when diagnosing operating problems, aligning or installing parts, calibrating and adjusting controls or mechanisms, and when fabricating, positioning and welding machinery components. A high level of attention to the work being carried out by an untrained work force is also required.	3 / 55
Physical - Most of the work requires standing and bending. Greater physical effort is required to lift heavy work pieces and work in awkward positions when personally carrying out repairs, however, much of this work is done by inmates.	2 / 30
<u>Responsibility</u>	
Resources - There is responsibility for the effective use of spare parts, tools and a variety of shop machines by self and inmates. There is responsibility also for estimating repair costs and maintaining inventories of parts, tools and equipment.	2 / 46
Safety of Others - There is responsibility for the observance of safe work practices by inmates and for ensuring that work areas are free of potential hazards.	3 / 36
<u>Working Conditions</u>	
Environment - There is frequent exposure to dirt and oil and a less frequent exposure to welding fumes.	2 / 28
Hazards - There is frequent exposure to minor injuries such as cuts and bruises.	A2 / 12

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 45

Level: 9

Sub-group: Vehicle and Heavy Equipment Maintaining

Descriptive Title: Ground-Support-Equipment Mechanic

Basic Point Rating: 568

Supervisory Rating: n/a

Summary

Under the vehicle maintenance shop supervisor, repairs and maintains diesel- and gasoline-powered mobile, towed and fixed aircraft ground support equipment at an airport; and performs related duties.

Duties

% of Time

Repairs component parts and attachments to mobile, fixed and towed ground support equipment, including snow removal and mechanized sweeping equipment, motor vehicles, diesel tractors, compressors, and diesel- and gasoline-powered stand-by power units, by

80

- detecting and evaluating operating faults,
- dismantling and reassembling equipment and component parts to specified tolerances, using hand tools,
- checking and adjusting the tolerance of moving parts, using gauges and hand tools, and test instruments,
- honing cylinders and grinding valves and valve seats, using power tools,
- drilling holes in metal parts, using bench drill,
- welding, brazing and cutting metal parts, using oxy-acetylene and electric-arc equipment, and
- cleaning equipment and parts with steam.

Inspects and maintains ground support equipment, by

10

- checking, draining and replenishing coolants and lubricants,
- performing test runs on equipment to ensure its proper functioning, and
- changing and repairing tires.

Performs related duties, such as repairing and maintaining shop equipment, driving vehicles into and out of the shop, keeping records of hours worked and parts and materials used to maintain and repair equipment, requisitioning parts and supplies, and attending training sessions in fire prevention and fire fighting.

10

Specifications

Degree/  
Points

Skill and Knowledge

Basic Knowledge - The work requires reading mechanical and electrical drawings, measuring clearances and shaft diameters, interpreting readings of electrical test equipment, and following detailed trade manuals to repair a variety of gasoline- and diesel-powered mobile equipment and attachments.

4 / 72

Degree/  
Points

Comprehension and Judgement - The work requires an understanding of the principles that apply to diesel- and gasoline-powered engines, component systems and attachments. Maintenance and repair manuals are available, but judgement is required when diagnosing faults, carrying out repairs, and interpreting instructions. 5 / 150

Specific Vocational Training - The work requires training and experience in repair techniques for a variety of heavy gasoline- and diesel-powered automotive equipment in order to determine operating faults and repair equipment and attachments. 5 / 150

Effort

Mental - The work requires a high level of attention to sequence or alignment of installation and adjustment of parts, with a requirement for concentration while diagnosing faults using test instruments. 3 / 55

Physical - There is a frequent requirement to work in awkward and confined positions in, on and under equipment and an occasional requirement to manipulate heavy objects such as tires, transmissions, transfer boxes and vehicle attachments. 3 / 45

Responsibility

Resources - There is responsibility for the effective use of spare parts and a wide variety of shop equipment. 2 / 46

Safety of Others - Due to the nature of the work and the work area there is little possibility for injury to others. 1 / 10

Working Conditions

Environment - There is frequent exposure to dirt and/or grease and occasional exposure to welding fumes. 2 / 28

Hazards - There is frequent exposure to minor injuries such as cuts, abrasions and burns when pulling on greasy wrenches and when welding. The use of goggles and face shield limits the possibility of eye injury when welding or grinding. A2 / 12

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 46

Level: 9

Sub-group: Boilermaking-Blacksmithing

Descriptive Title: Metal Fabricator, Marine Aids

Basic Point Rating: 577

Supervisory Rating: n/a

Summary

Under a shop foreman/woman, fabricates a variety of buoys, towers and other structural metal items in the boiler shop of a Marine Agency; repairs buoys, towers, boats and beacons; and performs related duties.

Duties

% of Time

- |  |    |
|--|----|
| Fabricates buoys and navigation signal towers, by  | 45 |
| - studying specifications and drawings,  |    |
| - measuring, marking, bending, cutting, shaping and punching metal plate, using machines such as brakes, rolls, shears, flame cutters and drill press, |    |
| - assembling and aligning sections to form frame of workpiece by using jigs,   |    |
| - hammering, chipping and grinding overlapping plate edges to prepare them for welding and to caulk seams, using power tools, and                      |    |
| - directing welders and riveters in fastening structures together and attaching bridle lugs and other fittings.  |    |
| Performs repair work on buoys, towers, boats, and beacons, by  | 45 |
| - unbolting and cutting defective plates and metal fittings,   |    |
| - straightening and patching plates,   |    |
| - shaping new plates, and  |    |
| - removing defective rivets, aligning rivet holes, and installing new rivets.  |    |
| Performs related duties, such as routine repairs to maintain workshops and wharves.  | 10 |

Specifications

Degree/  
Points

Skill and Knowledge

- |   |         |
|---|---------|
| Basic Knowledge - The work requires reading drawings and work specifications of standard items and applying a knowledge of shop mathematics in using templates and patterns to achieve a variety of geometrical configurations.   | 4 / 72  |
| Comprehension and Judgement - The work requires an understanding of the properties of specific metals and of the principles, practices and procedures used in shaping and fitting metal plate into conical, spherical, cylindrical and other forms, working according to specifications to fabricate or repair a variety of structural items. | 4 / 121 |
| Specific Vocational Training - The work requires training and experience in forming and fabricating plate and structural materials into buoys, tanks and structures, and in the use of hand tools and shop equipment to produce standard items to dimension and to repair or rebuild damaged items.   | 5 / 150 |

Effort

Mental - The work requires a moderate degree of attention to follow chalk lines and reference points while using power-operated shop and hand tools for the cutting and shaping of metal plates.

2 / 35

Physical - The work requires the frequent handling of heavy plate and bar metal.

4 / 60

Responsibility

Resources - There is responsibility for the effective use of tools, equipment and materials.

2 / 46

Safety of Others - The work requires observance of safety rules to avoid injury to other workers in close proximity while moving heavy items and using power tools and flame cutter.

2 / 23

Working Conditions

Environment - The work requires exposure to a high noise level within the plate shop and occasionally to temperature extremes. The work also requires wearing goggles and heavy protective gloves.

3 / 44

Hazards - The work requires frequent exposure to injuries from power tools, to strains and bruises from moving heavy objects, and to burns from working in close proximity to welders and burners.

B2 / 26

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 47

Level: 10

Sub-group: Electrical Installing and Maintaining

Descriptive Title: Electrician, Airport

Basic Point Rating: 652

Supervisory Rating: n/a

Summary

Under an airport manager, maintains all airport electrical installations; maintains runway lights; carries out visual and operating inspections of emergency power plant equipment; and performs related duties.

Duties% of Time

Maintains all airport electrical installations such as crash alarms, transformer stations, power distribution lines and control panels, by	50
- reviewing operating records and defect reports,	
- carrying out at regular intervals electrical tests, using such instruments as voltmeters, ammeters and ohmmeters,	
- relating the results of such tests to prescribed standards,	
- locating and identifying defects indicated by the tests, and	
- adjusting controls and making repairs to the system and components.	
Maintains approach, obstruction, direction and other runway lights in a serviceable condition, by	20
- visually inspecting lights in all brightness settings,	
- removing obstructions such as grass or snow from lights,	
- cleaning lenses and protective covers, replacing lamps and broken lenses,	
lubricating mechanical components and aligning lights,	
- testing runway lighting cables for correct amperage and voltage, and	
- locating and identifying defects indicated by the tests and making repairs.	
Carries out scheduled visual and operating inspections of emergency power plant equipment, by	15
- keeping or arranging for adequate supplies of fuel, lubricants and coolants,	
- checking and replenishing the oil level of the prime mover and cleaning or replacing oil and air filters at specified intervals,	
- checking and adjusting electrolyte level and recharging storage batteries when necessary,	
- starting the generator and observing switchboard and other instrument readings to determine that output and switchboard operation meet prescribed standards for varying loads,	
- making adjustments and repairs to the generator and associated controls as indicated by instrument readings, and	
- making or arranging for repairs to prime mover.	

% of Time

Performs related duties, such as carrying out or assisting with modifications to electrical supply and distribution systems, rewiring buildings, replacing lamps in airport buildings, repairing electric motors and fixtures, requisitioning stores and keeping an inventory, keeping a work-log and making monthly reports.

15

Degree/  
PointsSpecificationsSkill and Knowledge

Basic Knowledge - The work requires reading schematic drawings to modify, repair, install or inspect the electrical supply and distribution systems and electrical equipment at an airport, a knowledge of algebra to apply electrical formulae, the requisitioning of stores and the maintenance of an inventory, and the preparation of monthly reports.

5 / 88

Comprehension and Judgement - The work requires a thorough understanding of the principles of electricity and their application to a wide variety of electrical installations and equipment. Operating and maintenance manuals are available, but judgement is required in diagnosing faults and carrying out repairs without technical supervision.

5 / 150

Specific Vocational Training - The work requires training and considerable experience in laying out work and in installing and repairing electrical equipment and systems in order to perform a wide variety of skilled electrical work and provide in-situ expertise to the airport manager.

6 / 200

Effort

Mental - The work generally requires a high level of attention. Locating and identifying defects and effecting repairs entails frequent periods of concentration.

3 / 55

Physical - Most of the work is carried out in cramped or awkward quarters. Greater physical effort is occasionally required when lifting heavy objects or when climbing ladders.

2 / 30

Responsibility

Resources - There is responsibility for an airport electrical service that is in a continual state of readiness, also for the proper utilization of shop equipment and supplies.

2 / 46

Safety of Others - Reasonable care must be taken to prevent injury to any others in the area when working on energized circuits. Greater care must be taken when working on high voltage circuits if additional personnel have been assigned.

2 / 23

Working Conditions

Environment - There is daily exposure to all weather conditions while inspecting or servicing runway lights and exposure to noise and heat when carrying out certain internal maintenance tasks.

2 / 28

Hazards - There is exposure to severe shock when working on or near energized circuits.

CI / 32

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 48

Level: 10  
Sub-group: Electrical Installing and maintaining

Descriptive Title: Powerline Repairer

Basic Point Rating: 618  
Supervisory Rating: n/aSummary

Under the general supervision of a maintenance supervisor at the Canadian Forces Base, maintains, modifies and repairs all departmental transmission and distribution power lines; replaces burned out lamps and fixtures on street and obstacle lights; and performs related duties.

Duties% of Time

- Maintains, modifies and repairs power transmission and distribution lines, by 80
- climbing poles to replace broken or defective wires, primary fuses and damaged cut-outs,
  - securing new wires to insulators,
  - splicing wire to adjoining sections to complete circuit,
  - erecting poles and installing pole hardware, transformers, switches and fuses, using a variety of hand tools, and
  - testing circuits, using simplified instruments.

SpecificationsDegree/  
PointsSkill and Knowledge

Basic Knowledge - The work requires reading electrical diagrams and maintenance manuals, and applying a knowledge of shop mathematics to interpret readings of test instruments. 4 / 72

Comprehension and Judgement - The work requires sufficient understanding of electrical principles to install, modify or repair distribution systems. Judgement is required to determine faults and make repairs in accordance with the requirements of established codes. 4 / 121

Specific Vocational Training - The work requires training and experience in erecting and outfitting power distribution poles and in constructing and repairing transmission lines in order to provide a trouble-shooting, modification and maintenance service that meets provincial and national electrical codes. 5 / 150

	<u>Degree/ Points</u>
<u>Efforts</u>	
Mental - The work generally requires moderate attention with short periods of concentration for some of the more demanding aspects of the work, e.g., trouble shooting, circuit testing.	2 / 35
Physical - The work requires frequent climbing of poles and working in very difficult positions when attaching and securing pole hardware and transformers. There is also an occasional requirement to lift heavy articles.	4 / 60
<u>Responsibility</u>	
Resources - There is responsibility for the effective use and custody of hand tools, electrical supplies and spare parts.	2 / 46
Safety of Others - As a member of a line crew, extreme care must be exercised to ensure the safety of other workers. Failure to properly ground or shield conductors could result in serious electrical shocks to other workers.	4 / 50
<u>Working Conditions</u>	
Environment - The work is performed outdoors and is frequently subject to inclement weather conditions such as rain, snow and below zero temperatures. There is also a requirement to wear cumbersome clothing and equipment.	3 / 44
Hazards - There is frequent exposure to severe shock by high voltage energized circuits.	C2 / 40

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 49

Level: 10

Sub-group: Pipefitting

Descriptive Title: High-Pressure  
Pipefitter/Welder

Basic Point Rating: 653

Supervisory Rating: n/a

Summary

Under the steam-fitting shop supervisor at a Canadian Forces base, lays out, fabricates, assembles and welds high- and low-pressure piping, valves and fittings in the maintenance of a central heating plant and associated distribution systems; fabricates, modifies or repairs miscellaneous metal articles; and performs related duties.

Duties

% of Time

Lays out, fabricates and/or assembles parts and welds high- and low-pressure piping, valves and fittings, and heavy engineering equipment and fixtures of the heating plant and base buildings, by

70

- examining drawings and other specifications to determine layout, materials, and type and standard of welded joints,
- measuring distances and marking reference points on piping and structures,
- cutting, reaming, threading and bending pipe,
- preparing pieces for welding by cleaning or degreasing using wire brush, portable grinder or chemical solutions,
- assembling pipe sections, valves and fittings and securing assemblies in position with clamps, brackets and hangers or by tack-welding components together, and
- setting up equipment and completing final welding of components using electric-arc and oxy-acetylene welding equipment.

Fabricates and modifies a limited variety of articles such as security screens, bars and hasps, and shop tools, by

25

- laying out work and cutting metal stock with a power hack-saw,
- drilling holes with drill press,
- heating and shaping components with forge and blacksmithing tools, and
- welding component parts.

Performs related duties, such as cleaning and lubricating shop equipment and directing the activities of a welder helper when assigned.

5

Specifications

Degree/

Points

Skill and Knowledge

Basic Knowledge - The work requires a knowledge of shop mathematics to lay out piping systems. It also requires reading pipe system drawings and specifications.

4 / 72

Degree/  
Points

Comprehension and Judgement - The work requires an understanding of the principles and practices governing the repair of high- and low-pressure piping systems as well as those governing high-pressure welding and blacksmithing. There is a requirement to read drawings and specifications and judgement must be exercised in ensuring the quality of completed welds and in fabricating a limited variety of miscellaneous metal articles. 5 / 150

Specific Vocational Training - The work requires training and experience in pipefitting and in the use of oxy-acetylene and electric-arc welding equipment to assemble and repair high-pressure piping systems to meet provincial and national codes. Some training and experience in blacksmithing is also required. 6 / 200

Effort

Mental - The work requires close attention and hand-eye co-ordination when positioning parts and when welding high-pressure pipes and fittings to attain desired penetration and a high quality weld. 3 / 55

Physical - The work frequently requires welding from cramped and awkward positions. It also requires climbing ladders and working from scaffolding. 3 / 45

Responsibility

Resources - There is responsibility for the effective use and care of tools and equipment. 2 / 46

Safety of Others - Special care must be taken to prevent eye injuries and serious burns to other workers when operating welding equipment overhead, however safe working practices indicates a requirement for a spotter. 2 / 23

Working Conditions

Environment - There is continual exposure to heat, fumes and dirt when using welding and forging equipment. There is a significant requirement to wear protective clothing and equipment. 3 / 44

Hazards - There is occasional exposure to injuries resulting from falls from scaffolding. The use of protective clothing and face shields reduces the hazards of serious burns or eye injuries. B1 / 18

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 50

Level: 11  
Sub-group: PipefittingDescriptive Title: Maintenance Supervisor,  
Plumbing and HeatingBasic Point Rating: 698  
Supervisory Rating: C4Summary

Under the Maintenance Superintendent, plans, schedules, and controls the activities of three workshops engaged in installing, repairing and maintaining plumbing, heating and associated systems and in the fabrication of structural and miscellaneous iron products, at a Canadian Forces base; and performs related duties.

Duties% of Time

Administers the activities of 26 supervisors and trades personnel engaged in the installation, repair and maintenance of plumbing systems, high and low pressure steam systems, water and air lines, sprinkler systems, fire hydrants, air-conditioning, refrigeration, lagging, sheet metal fabrication, welding, oil burner repairs, furnace installations and pneumatic control systems and in carrying out annual overhauls to the heating plant, by	60
<ul style="list-style-type: none"> <li>- reviewing work orders, construction plans, estimates, bulletins and technical instructions to determine the shop priorities,</li> <li>- co-ordinating work between shops and outside contractors to meet the demands of multi-trade construction projects and major heating plant annual overhauls,</li> <li>- providing technical guidance to subordinate supervisors in laying out difficult work and in carrying out major repairs,</li> <li>- visiting sites to ensure conformity with job specifications and estimates, and recommending needed amendments or changes in the scope of work,</li> <li>- determining the need for and scheduling the use of rental equipment such as special cutters, welding equipment, burners and sheet metal joint formers,</li> <li>- initiating requests for the replacement and updating of shop equipment, and</li> <li>- establishing priorities for routine maintenance and service work and assisting the Maintenance Superintendent in the setting of priorities for all new and major repair work.</li> </ul>	
Supervises, through subordinate supervisors, a staff of tradesworkers, by:	30
<ul style="list-style-type: none"> <li>- assigning projects to supervisors and reviewing work in progress,</li> <li>- appraising the work performance of subordinate supervisors and military tradesworkers, discussing their efficiency with them and counselling as necessary,</li> <li>- serving on examination boards for the selection of new staff, and</li> <li>- participating in the resolution of grievances, recommending acting pay and requesting changes to the staff complement.</li> </ul>	
Performs related duties such as explaining and enforcing safety regulations, preparing trades examinations for use in competitions and maintaining labour expenditure records.	10

**Specifications**Skill and Knowledge

Basic Knowledge - The work requires participating in the estimation of cost, labour, material, time, and scheduling requirements with the base maintenance officer to establish the methods and procedures best suited to individual construction projects. The work requires interpreting complex drawings and technical data, using formulae from a variety of trades, in scheduling and laying out work for sub-supervisors and work groups and writing reports to recommend the updating or replacement of shop equipment. 6 / 104

Comprehension and Judgement - The work requires a thorough understanding of the principles and practices associated with the plumbing, pipefitting and steamfitting trades as well as a good knowledge of closely allied trades, such as refrigeration and sheet-metal working. Technical guidance is provided by manuals, drawings, specifications, engineering orders and building codes but judgement is required when scheduling and co-ordinating the work force for conflicting projects and when planning and laying out work for new systems installations. 5 / 150

Specific Vocational Training - The work requires training and experience in co-ordinating and supervising a work force engaged in a variety of installations, maintenance and repair projects involving water, sewer, and sprinkler systems, high and low pressure steam systems, oil burner and pneumatic control systems, air-conditioning and refrigeration systems, lagging and sheet metal work. 7 / 250

Effort

Mental - The work generally requires a high level of attention while co-ordinating work performed at several locations. Periods of concentration are required when interpreting drawings and specifications, when estimating project cost, labour and material requirements, and when planning the deployment and production of a subordinate work force. 3 / 55

Physical - The work requires intermittent standing and walking when visiting work sites. There is an occasional requirement for greater physical effort when climbing scaffolding and ladders while examining piping, hangars and duct work. 1 / 15

Responsibility

Resources - There is responsibility for the effective utilization of personnel, equipment, tools and materials in the shops and at varying work sites. Errors in project requirement calculations can result in unwarranted costs, lost time, waste of materials and delay in project completion. 3 / 72

Safety of Others - There is a continuing responsibility for ensuring that personnel comply with safe work practices and that shops and work sites are free of potential hazards. 3 / 36

Degree/  
Points

## Working Conditions

Environment - There is occasional exposure to dirt, noise and inclement weather when checking or supervising work in progress.

1 / 12

Hazards - There is occasional exposure to minor injuries such as abrasions, cuts and bruises while inspecting work.

A1 /4

## Supervision

The work requires the supervision, through subordinate supervisors, of three units totalling 26 trades personnel of whom 14 are allocated to the pipefitting sub-group. Supervision includes setting priorities, assigning work, checking work in progress and on completion, providing on-the-job training in work methods and procedures, assessing employee performance and participating in the selection of new staff.

C4

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 51

Level: 9

Sub-group: Pipefitting

Descriptive Title: Pipefitter

Basic Point Rating: 554

Supervisory Rating: n/a

Summary

Under the supervisor of plumbing and steam fitting, maintains, repairs and installs high-pressure steam and other piping at a Canadian Forces Base; and performs related duties.

Duties% of Time

Maintains, repairs and installs heating and plumbing fixtures and water, sewage, and high-pressure steam distribution and collection systems, including piping, valves, traps,

90

pumps, gauges, metering devices, fixtures and fittings, by

- threading and bending metal piping by hand, or using pipe-threading and pipe-bending equipment,
- cutting metal pipe, using a hack-saw, pipe cutter, hammer and chisel, and cutting torch,
- connecting fixtures to the system,
- assembling piping, fittings and controls, using hand tools to position pipe sections and to tighten and seal joints,
- positioning and securing piping to concrete, wood and metal surfaces, using hand tools, and
- testing piping systems for leaks by increasing the pressure in pipes and by observing pressure gauges attached to pipes.

Performs related duties, such as operating sewer-line-cleaning and pipe-thawing machines.

10

SpecificationsDegree/PointsSkill and Knowledge

Basic Knowledge - The work requires a knowledge of shop mathematics to lay out piping systems. It also requires reading plumbing and pipe system drawings, diagrams and specifications.

4 / 72

Comprehension and Judgement - The work requires an understanding of the principles governing the repair and installation of plumbing and high-pressure steam systems, and a thorough knowledge of the techniques and tools of the trade. Judgement is required to identify trouble spots and effect repairs.

4 / 121

Specific Vocational Training - The work requires training and experience in maintaining, repairing and installing high-pressure steam and plumbing systems to meet the requirements of provincial and national codes.

5 / 150

Degree/  
Points

Effort

Mental - The work requires moderate attention with periods of close attention while transposing measurements and other specifications by referral to blueprints and drawings, and taking measurements to cut and form pipe and install fittings. 2 / 35

Physical - The work frequently requires climbing stairs and ladders and manipulating workpieces in cramped or awkward positions. 3 / 45

Responsibility

Resources - There is responsibility for the effective use and care of equipment, fixtures and fittings. Faulty repairs or installations result in loss of time and materials. 2 / 46

Safety of Others - The work requires reasonable care to prevent injury to others in the area when lifting, carrying, positioning and assembling piping. 2 / 23

Working Conditions

Environment - The work involves frequent exposure to heat, dirt and obnoxious odours when maintaining, repairing and installing steam, water and sewage pipe, fixtures and controls. 3 / 44

Hazards - There is occasional exposure to lost-time injuries such as serious strains and sprains when manipulating workpieces and working in awkward positions. B1 / 18

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 52

Level: 7

Sub-group: Sheet Metal Working

Descriptive Title: Body Repairer

Basic Point Rating: 472

Supervisory Rating: n/a

Summary

Under the supervisor of the body repair shop, repairs metal body components, trim, glass, fittings and fixtures on motor vehicles at a Canadian Forces Base; and performs related duties.

Duties

% of Time

Repairs motor vehicle metal body components such as sub-frame, doors, fenders, bumpers, and engine hood and trunk lid, by

80

- dismantling and re-assembling body components, using hand tools such as wrench and oxy-acetylene torch,
- hammering, beating and cutting, and pulling and pressing bent and crushed body components, using hand and pneumatic hammers, oxy-acetylene torch, and pneumatic press and puller,
- filing, grinding and sanding metal surfaces, paint and body putty to prepare surfaces for painting,
- building up surfaces, using metal spray gun,
- applying rust inhibitor to repaired surfaces, using spray gun, and
- welding tears, using oxy-acetylene equipment.

Performs related duties, such as fabricating sheet-metal panels and parts, repairing and installing interior and exterior trim, seats and fittings, dismantling and replacing mirrors, lights and glass, and driving motor vehicles into and out of the body repair shop.

20

Specifications

Degree/  
Points

Skill and Knowledge

Basic Knowledge - The work requires a knowledge of arithmetic to lay out sheet-metal panels and to use scales and calipers.

2 / 40

Comprehension and Judgement - The work requires an understanding of the properties and uses of sheet-metal and other trim material and of established trade practices in repairing and fabricating sheet-metal body components and installing interior and exterior accessories. Judgement is required in repairing and fabricating body components to conform to original contours.

3 / 93

Specific Vocational Training - The work requires training and experience in repairing and fabricating sheet-metal body components and in repairing and installing trim, glass, fittings and fixtures to restore vehicle to a specified condition.

5 / 150

Degree/  
PointsEffort

Mental - The work requires a moderate degree of attention to appearance, fit and shape when hammering, building-up, grinding and fabricating sheet-metal surfaces to conform to original contours. The work also requires co-ordination when weldings tears. 2 / 35

Physical - The work requires dismantling and installing, and hammering, filing, grinding and bending metal body components in awkward work positions in, on and under motor vehicles. 3 / 45

Responsibility

Resources - There is responsibility for the effective use of sheet-metal materials, interior and exterior trim and fixtures, and a variety of shop equipment. 2 / 46

Safety of Others - Reasonable care must be taken while carrying out repairs and installations to prevent injuries to others in the area arising from spraying molten lead, and cutting and welding with an oxy-acetylene torch. 2 / 23

Working Conditions

Environment - There is significant exposure to noise, welding fumes or dust when dismantling, repairing and installing body components. 2 / 28

Hazards - There is frequent exposure to minor injury when dismantling and re-assembling light-weight body components. The wearing of protective clothing and goggles prevent serious burns from spraying molten lead and welding. A2 / 12

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 53

Level: 9

Sub-group: Sheet Metal Working

Descriptive Title: Sheet-Metal Worker

Basic Point Rating: 554

Supervisory Rating: n/a

Summary

Under a plumbing shop supervisor at a Canadian Forces base, fabricates, repairs, alters and installs a wide range of sheet metal articles; inspects assemblies and installations; and performs related duties.

Duties% of Time

Fabricates, repairs and alters ventilation, hot air and exhaust ducts, roof flashing and eaves trough, and patterns or templates, using sheet copper, aluminum, tin plate, galvanized iron, stainless steel and black iron working from work-order specifications or patterns, by	50
- locating and marking dimensions and reference lines on metal stock to layout complex work having irregular shapes and formed sections,	
- cutting, bending, shaping and riveting sheet metal, using hand tools and machines such as brake, power cutter, bar folder and power shears,	
- punching holes in sheet metal for screws or rivet fasteners, using a machine punch,	
- beading, crimping, burring, turning, smoothing, sealing and joining sheet-metal edges, using machines such as power beader, crimper and elbow edger, and	
- hand-soldering, spot-welding or rivetting joints.	
Installs sheet-metal products such as ventilation, hot air and exhaust ducts, eaves troughing, roof flashing and counter tops.	25
Inspects assemblies and installations for conformance with specifications, using measuring instruments such as calipers and scale.	15
Performs related duties, such as setting-up shop machines, measuring and performing layout of minor duct installations, and cleaning tools and work benches.	10

Degree/  
PointsSpecificationsSkill and Knowledge

Basic Knowledge - The work requires reading drawings, measuring dimensions and angles by means of scale, protractor and calipers and applying a knowledge of elementary geometry to lay out patterns and templates and fabricate and install a variety of non-standard items.

5 / 88

	Degree/ Points
<p>Comprehension and Judgement - The work requires a good understanding of the properties of metals and uses of material and of established trade practices and techniques in fabricating, repairing and installing sheet-metal articles according to specifications and instructions. Judgement is required in determining sequence of operations and in fabricating and installing items to fit limited spaces.</p>	4 / 121
<p>Specific Vocational Training - The work requires training and experience in forming, fastening and fabricating light-gauge sheet metal in order to make, install or repair a wide range of sheet-metal articles.</p>	5 / 150
<p><u>Effort</u></p>	
<p>Mental - The work generally requires a moderate level of attention. Closer attention is required while transposing dimensions, taking measurements at work sites or from drawings, and laying out work.</p>	2 / 35
<p>Physical - The work frequently requires lifting and carrying medium-weight assemblies, climbing ladders and stairs, and working in confined spaces.</p>	3 / 45
<p><u>Responsibility</u></p>	
<p>Resources - There is responsibility for the effective use of materials, equipment and tools.</p>	2 / 46
<p>Safety of Others - Reasonable care is required to prevent injury to others when installing unwieldy sheet-metal assemblies.</p>	2 / 23
<p><u>Working Conditions</u></p>	
<p>Environment - There is frequent exposure to heat, dirt or inclement weather when installing sheet-metal assemblies.</p>	2 / 28
<p>Hazards - There is frequent exposure to minor injury such as cuts and bruises and occasional exposure to "lost-time" injuries incurred by falling from ladders.</p>	B1 / 18

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 54

Level: 10  
Sub-group: Woodworking

Descriptive Title: Carpenter Supervisor

Basic Point Rating: 632  
Supervisory Rating: C3Summary

Under a construction and maintenance superintendent, supervises the activities of a group of carpenters and helpers engaged in general carpentry at a military establishment; co-ordinates carpentry work with that of other trades; arranges for repair and maintenance of equipment; and performs related duties.

Duties% of Time

Supervises the activities of 20 carpenters and helpers engaged in altering and repairing structures such as houses, barracks and garages, and in fabricating and repairing in a work shop articles such as cabinets, cupboards, tables and stands, by	75
- allocating priorities, establishing schedules, assigning personnel and issuing job orders and plans,	
- arranging for the transport of personnel, tools and materials to the work site,	
- inspecting work when required for adherence to standards, plans and schedule, and	
- keeping time and material records and drafting reports of completed work.	
Co-ordinates carpentry work with that of other trades, by	10
- reviewing projects with other trades supervisors,	
- drawing plans or sketches, and	
- estimating time and material required.	
Inspects tools and equipment, both shop and portable, for defects and malfunction and arranges for repair and maintenance.	10
Performs related duties, such as maintaining discipline, ensuring compliance with safety regulations, keeping attendance and time sheets and requisitioning materials and supplies.	5

SpecificationsDegree/  
PointsSkill and Knowledge

Basic Knowledge - The work requires the ability to read plan and elevation drawings and specifications and a knowledge of shop mathematics, including elementary geometry, to estimate time and material costs and to lay out framing sections.

5 / 88

	<u>Degree/ Points</u>
<p>Comprehension and Judgement - The work requires a thorough understanding of the principles that apply to building construction, of the use of shop machines and hand tools, of the properties of various materials, of the techniques used to build, modify and repair structures to withstand varying loads, and of the relationships between trades. Judgement is required in modifying plans or specifications to meet local requirements and in coordinating the work with other trades.</p>	5 / 150
<p>Specific Vocational Training - The work requires training and experience in general carpentry work in order to supervise skilled workers engaged in fabricating, modifying or repairing wooden structures according to blueprints, specifications, and local or national building codes and in fabricating and repairing articles such as cabinets, tables and stands.</p>	6 / 200
 <u>Effort</u>	
<p>Mental - The work requires taking accurate measurements for plans and sketches and for time and material estimates, and requires close attention to various concurrent works performed at different points by small groups of subordinates.</p>	3 / 55
<p>Physical - The work involves walking and standing while inspecting work at various sites. Greater physical effort is occasionally required, such as climbing stairs or ladders.</p>	1 / 15
 <u>Responsibility</u>	
<p>Resources - There is responsibility for the effective use and custody of equipment, tools and materials in the carpenter shop and the effective utilization of personnel.</p>	3 / 72
<p>Safety of Others - A high level of care is required to ensure that personnel comply with safety regulations and that the work shop and work sites are kept free of potential hazards.</p>	3 / 36
 <u>Working Conditions</u>	
<p>Environment - The work environment is generally good. There is occasional exposure to inclement weather.</p>	1 / 12
<p>Hazards - There is an occasional exposure to minor injuries while inspecting work.</p>	AI / 4
 <u>Supervision</u>	
<p>The work requires interpreting instructions and assigning 20 carpenters and helpers to jobs, determining work methods, checking work for conformity to prescribed standards, establishing schedules to ensure optimum use of resources and proposing disciplinary action.</p>	C3

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 55

Level: 9

Sub-group: Woodworking

Descriptive Title: Carpenter, Maintenance

Basic Point Rating: 562

Supervisory Rating: n/a

Summary

Under the construction and maintenance supervisor in a national park, performs a variety of skilled carpentry work on buildings and structures; fabricates wooden components within the shop; constructs concrete forms and small buildings; and performs related duties.

Duties% of Time

Performs a variety of skilled carpentry work on buildings and structures working from drawings, sketches or oral instructions, by	40
- repairing window or door frames,	
- building cupboards, clothes lockers and dressing cubicles,	
- repairing floors and interior and exterior sheathing,	
- replacing floor and ceiling tiles, and	
- replacing locks and re-glazing windows, doors and partitions.	
Fabricates a variety of items from wood or other materials within a carpenter shop, by	30
- measuring, squaring, sawing, planing, gluing and clamping wooden sections into special shapes, using table, band, and radial saws, jointer, drill press and shaper, and	
- prefabricating studs, beams, rafters and joists for use in the field.	
Constructs concrete forms and small buildings, by	20
- laying out and constructing forms according to blueprint, erecting framework, siding, flooring and roofing, and	
- completing inside trim to required specifications.	
Performs related duties, such as keeping time and material records and estimating materials required.	10

Degree/SpecificationsPointsSkill and Knowledge

Basic Knowledge - The work requires reading plan and elevation drawings and specifications. It also requires a knowledge of shop mathematics, including elementary geometry, to estimate materials required and to lay out and fabricate items according to plan.

5 / 88

Degree/  
Points

Comprehension and Judgement - The work requires an understanding of the principles and practices that apply to wood construction, of the use of shop machines and hand tools, of the properties of various materials, and of the techniques used to build, modify and repair structures to withstand varying loads. Judgement is required when placing structural members to achieve sufficient strength.

4 / 121

Specific Vocational Training - The work requires training and experience in repairing and fabricating a variety of wooden structures and in the use of hand tools and shop equipment to fabricate and repair items according to plans and specifications.

5 / 150

Effort

Mental - The work generally requires moderate attention when laying out, cutting and erecting component parts to form a structure. Concentration is required for some of the more demanding aspects of the work.

2 / 35

Physical - There is a frequent requirement to work from ladders and in cramped and awkward positions. There is also an occasional requirement to lift awkward or heavy materials.

3 / 45

Responsibility

Resources - There is responsibility for the effective use and care of shop equipment and materials. Errors in repairing and fabricating wooden structures could result in waste of materials, damage to the structures, and loss of own time.

2 / 46

Safety of Others - Reasonable care is required to prevent injuries to other workers in the area when using power tools and handling materials.

2 / 23

Working Conditions

Environment - There is frequent exposure to some disagreeable condition, such as dirt, dust, noise or inclement weather.

2 / 28

Hazards - There is frequent exposure to injuries arising from falls off ladders and scaffolding and from the use of power tools when fabricating items in the shop.

B2 / 26

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 56

Level: 10

Sub-group: Metal Machining

Descriptive Title: Machinist

Basic Point Rating: 627

Supervisory Rating: n/a

Summary

Under the machine shop foreman/woman at a military establishment, fabricates and repairs machined items to specified tolerances; maintains equipment and work areas; and makes rough sketches of machined items as required.

Duties

of Time

Fabricates and repairs machined items used in automotive and machinery repairs to specified tolerance, by

80

- reading drawings, specifications and sketches of machined items to determine the machining sequence,
- planning machining procedures and laying out the work,
- setting up and operating a variety of precision machine tools, such as lathe, milling machine, shaper, planer and radial drill, and other shop machines,
- making calculations to measure and mark reference points, and to lay out complex and irregular shapes,
- selecting appropriate feeds, speeds, depth of cut, shape of cutting tools and abrasers according to the nature of the material and specified finish and tolerance,
- inspecting machined surfaces for quality and compliance with specified tolerance, using micrometers, calipers, verniers and other precision instruments to verify dimensions, and
- precision fitting and assembling of machined components.

Maintains equipment and work area, by

15

- sharpening and repairing shop tools and equipment, and
- cleaning machine tools during use and lubricating them when required.

Makes rough sketches of machined items as required.

5

Specifications

Degree/

Points

Skill and Knowledge

Basic Knowledge - The work requires interpreting complex drawings and manuals, examining parts and their mating surfaces and applying a knowledge of geometry and elementary trigonometry to lay out work and position work pieces.

6 / 104

	<u>Degree/ Points</u>
Comprehension and Judgement - The work requires an understanding of the use of precision machine tools and instruments, of the properties and limitations of materials, and of the processes used to effect specified machining and fitting requirements. The work also requires some knowledge of mechanics. There is a requirement for judgement in the layout of work and in machinery set-up and control.	5 / 150
Specific Vocational Training - The work requires training and experience in laying out work, setting up and operating precision machine tools, and fitting and assembling parts in order to perform a wide variety of skilled work having close and exact dimensional requirements.	5 / 150
<u>Effort</u>	
Mental - The work requires close attention in reading and interpreting mechanical specifications and precise mental-sensory co-ordination in laying out, setting up and using machining equipment and measuring devices to achieve exacting dimensions.	4 / 75
Physical - The work requires continual standing while setting up and operating machining equipment. Light-weight objects and tools are handled continually, with an occasional requirement to lift heavy items into and out of machines.	2 / 30
<u>Responsibility</u>	
Resources - There is responsibility for the effective use of materials, precision tools and equipment.	2 / 46
Safety of Others - The work is performed in relative isolation, with little possibility of injury to others. The work causes flying particles, but the worker cannot control this hazard.	1 / 10
<u>Working Conditions</u>	
Environment - The work is performed in a workshop with high noise levels with frequent exposure to dirt and grease.	3 / 44
Hazards - There is frequent exposure to minor injuries and occasional exposure to more serious injuries such as sprains from lifting and manipulating heavy workpieces.	B1 / 18

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 57

Level: 11

Sub-group: Metal Machining

Descriptive Title: Tool-and-Die Maker

Basic Point Rating: 671

Supervisory Rating: n/a

Summary

Under the machine shop supervisor, plans, lays out and performs machining operations and bench work to construct, alter and repair tools, dies, fixtures, jigs, gauges, and other items of complicated and involved design to close and exacting tolerance and finish requirements.

Duties% of Time

- Plans, lays out and performs machining operations and bench work to construct, alter and repair tools, dies, fixtures, jigs and other items of complicated and involved design, by
- studying drawings and specifications to visualize products, compute dimensions, make sketches and plan sequence of operations,
  - measuring, marking and scribing metal stock to lay out machining operations,
  - setting up and operating a variety of machines to cut, turn, mill, plane, bore, grind, or otherwise shape metal workpieces frequently requiring complicated and unusual set-ups and improvisation or adaptation of tools and equipment,
  - verifying conformance of machined parts to specifications using a wide variety of precision measuring instruments;
  - fitting and assembling parts and testing completed tools, dies, jigs or fixtures for proper operation, and
  - operating a heat-treating furnace and quenching equipment to anneal, temper, and harden workpieces.

95

Performs related duties such as discussing dimensional, design and technical problems with engineering or research staff, making drawings or sketches of proposed mechanisms, and setting up and operating machines to make prototype models.

5

SpecificationsDegree/  
PointsSkill and Knowledge

Basic Knowledge - The work requires interpreting drawings and specifications and the use of advanced shop mathematics to lay out work, make set ups, operate machines and check work.

6 / 104

Comprehension and Judgement - The work requires a thorough knowledge of tool making and machining technology. Judgement is required in laying out work, determining sequence of operations, operating equipment, fabricating special jigs and fixtures, heat treating machined items, and in discussing dimensional, design and technical problems with personnel responsible for the development of prototypes.

5 / 150

	Degree/ Points
<p>Specific Vocational Training - The work requires training and extensive experience in laying out complicated and involved work, setting up and operating a variety of shop machines requiring difficult and unusual set-ups, fabricating jigs and fixtures, improvising and adapting tools and equipment, and in heat treating metal workpieces.</p>	6 / 200
<p><u>Effort</u></p> <p>Mental - The work requires long periods of close attention in studying drawings and specifications; visualizing products; computing dimensions; measuring, marking and scribing stock; and in operating metal-working machines to achieve demanding results.</p>	4 / 75
<p>Physical - The work entails long periods of standing when laying out work and setting up and operating machine shop equipment. Greater physical effort is occasionally required when handling heavy workpieces.</p>	2 / 30
<p><u>Responsibility</u></p> <p>Resources - There is responsibility for the effective use of materials and machine shop tools and equipment.</p>	2 / 46
<p>Safety of Others - The work is performed in relative isolation and there is little possibility of injury to others.</p>	1 / 10
<p><u>Working Conditions</u></p> <p>Environment - Most of the work is performed in a machine-shop environment with exposure to high noise levels and less frequent exposure to heat or other condition.</p>	3 / 44
<p>Hazards - There is frequent exposure to minor injuries such as cuts or bruises from handling tools and metal workpieces and from operating machine shop equipment.</p>	A2 / 12

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 58

Level: 8

Sub-group: Grain Handling and Weighting

Descriptive Title: Grain-Cleaner Supervisor

Basic Point Rating: 526

Supervisory Rating: B2

Summary

Under the General Foreman/Woman of a Canadian Government elevator, plans and organizes the cleaning and drying of grain and grain by-products; supervises and participates in the cleaning and drying process; controls the quality and quantity of grain and grain by-products stored within and shipped from the terminal; determines maintenance requirements; supervises subordinate staff and performs other duties.

Duties% of Time

Plans and organizes the cleaning and drying of grain and grain by-products in an elevator, by

25

- examining regularly, samples of receipts and commodities to be cleaned and assessing grade, dockage and moisture by visual examination, use of dockage tester, hand sieves and moisture tester for determining the separation and degree of moisture reduction required to meet specifications,
- determining the products to be separated so as to ensure optimum financial returns,
- determining cycle times, machines, cylinders, sieves and temperatures to be used in cleaning and drying specific lots, and
- recording all relevant information in an operations log.

Plans, supervises and participates in the cleaning and drying of grain and grain by-products, by

40

- starting and/or instructing staff to start all equipment utilized in the cleaning and drying process, such as conveyors, grain cleaners, dryers and fans,
- directing and regulating the flow of grain to the cleaners and dryers through the adjustment of feeder controls,
- ensuring continual checks are made on the quality and quantity of products coming from the cleaners and dryers;
- adjusting and instructing subordinates to adjust the various machines and flow of grain as required to effect the required degree of cleaning and drying,
- ensuring the dryers and immediate work areas are cleaned periodically to remove accumulated chaff dust and grain residue, and
- supervising the operations of auxiliary cleaning equipment such as destoner and thresher.

Controls the quality and quantity of grain and grain by-products stored within and blended for shipment from the elevator, by

20

- examining samples of grain and grain by-products to determine the proportions in which they will be blended to achieve the desired quality and ensure an optimum return to the elevator,
- examining samples to ensure proper moisture content and to guard against insect-infested grain being shipped;

% of Time

- operating the bin slide valves and adjusting a number of such valves to obtain the proper blend or mix of grain as it is being shipped where such mixing is legally permitted,
- checking the volume of grain on conveyor equipment to avoid overloading,
- supervising the deep-probing of bins and the examination of samples to guard against heat deterioration or insect infestation,
- supervising the spraying of grain, grain handling equipment and buildings with fumigants, to arrest or prevent insect infestation, and
- reporting to the General Foreman/woman on quality of grain and by-products.

Determines the maintenance required to maintain the cleaners, dryers and related equipment at operating efficiency, by 5

- examining the equipment periodically to detect signs of wear or breakdown and ensuring that routine maintenance such as screen cleaning, oiling, greasing and minor repairs are performed as required, and
- reporting on the efficiency of the machines and requesting replacement parts as required.

Supervises four subordinates, by 10

- providing on-the-job training,
- explaining and instructing on work procedures,
- discussing and reporting on employee performance,
- proposing disciplinary action, and
- instructing employees on work safety and ensuring safe working practices are followed.

Degree/  
Points

Specifications

Skill and Knowledge

Basic Knowledge - The work requires keeping records pertaining to the cleaning and drying of grain, making calculations to determine the amount of cleaning or drying time required as well as the proportions for the blending of grain and grain by-products. 3 / 56

Comprehension and Judgement - The work requires an understanding of the principles that apply to the cleaning, drying and blending of grain and grain by-products. There is a requirement for the exercise of judgement in determining the amount of cleaning and drying required as well as in blending grains to achieve desired quality and ensure optimum return to the elevator. 4 / 121

Specific Vocational Training - The work requires training and experience in the operation of cleaners and dryers in a terminal elevator as well as experience in blending grains to comply with shipping requirements and in supervising a small staff. 4 / 100

Effort

Mental - The work generally requires attention with periods of concentration to ensure that grain is cleaned, dried and stored in a manner that will prevent spoilage and contamination. 2 / 35

Degree/  
Points

Physical - The work requires continual standing and walking to ensure that dryers and cleaners are functioning properly and that grain is being blended to meet shipping requirements. Greater physical effort is required to climb stairs. 2 / 30

Responsibility

Resources - There is responsibility for controlling the cleaning, drying, storage and blending of grain and grain by-products. Errors in judgement might result in monetary loss owing to inadequate drying, cleaning and blending as well as spoilage due to improper storage. 3 / 72

Safety of Others - There is a requirement to ensure that staff assisting with the operations are aware of and practice safety precautions when working around conveyors and cleaning and drying equipment. 3 / 36

Working Conditions

Environment - The work is performed in a terminal where there is frequent exposure to noise and high dust levels created by cleaning and drying equipment. 3 / 44

Hazards - There is occasional exposure to serious injuries such as burns, hand or eye loss when operating cleaning and drying equipment as well as when working around moving belts. The possibility of explosions is always present. CI / 32

Supervision

The work requires taking the lead as a working member of the group and instructing four employees in the operation of the cleaners and dryers as well as assigning staff to perform specific functions and ensuring that cleaning and drying quality and quantity standards are met. B2

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 59

Level: 7

Sub-group: Grain Handling and Weighting

Descriptive Title: Grain Weigher

Basic Point Rating: 464

Supervisory Rating: AI

Summary

Reporting to a Supervising Weigher at any of several private grain elevators within the area, weighs, as assigned, incoming or outgoing grain, using beam scales or by controlling the operation of electronic bulk-weighing equipment; supervises the activities of two subordinates engaged in monitoring and monitors the loading/unloading and movement of grain by elevator employees to ensure the integrity of the weighing process; and performs other duties.

Duties

% of Time

<p>Weighs incoming and outgoing grain using beam scales or by controlling the operation of electronic bulk-weighing equipment, by</p> <ul style="list-style-type: none"> <li>- directing elevator employees in starting and stopping the flow of grain to the scale(s),</li> <li>- balancing the scale beam and recording the weight of grain or inserting ticket into automatic recorder that prints weight,</li> <li>- selecting mode of operation when operating electronic bulk-weighing equipment,</li> <li>- pressing panel-board buttons in appropriate sequence when operating equipment in a semi-automatic mode,</li> <li>- observing operations to detect malfunctions or irregularities,</li> <li>- suspending weighing operations until malfunctions have been rectified, and</li> <li>- compiling official weigh sheets.</li> </ul>	<p>40</p>
<p>Oversees the operation of mechanical or electronic bulk grain weighing systems and the associated grain unloading and handling equipment by grain elevator employees to ensure that weights of grain received and shipped are authentic and may be officially certified, by</p> <ul style="list-style-type: none"> <li>- ensuring that the movement of grain is controlled so that it is all properly received, weighed and shipped,</li> <li>- observing that garner and hopper gates are opened and closed in proper sequence so that all grain passing through the scale is measured and recorded, and</li> <li>- recording incorrect operations and initiating appropriate corrective action.</li> </ul>	<p>40</p>
<p>Supervises, as a working member, two employees, by</p> <ul style="list-style-type: none"> <li>- directing specific functional and operational checks as required, and</li> <li>- instructing employees in work methods.</li> </ul>	<p>15</p>
<p>4</p> <p>Performs other duties such as participating in official audits or special weighing programs at any grain elevator in Canada; observing and reporting on changes in construction or equipment; and recommending maintenance and repairs.</p>	<p>5</p>

	<u>Degree/</u> <u>Points</u>
<b><u>Specifications</u></b>	
<b><u>Skill and Knowledge</u></b>	
Basic Knowledge - The work requires a good knowledge of arithmetic to record quantities of grain weighed and compile weigh sheets. It also requires keeping records of weighing activities and particularly of malfunctions of manual and/or electronic scales, and reading flow charts of elevators.	3 / 56
Comprehension and Judgement - The work requires a good understanding of elevator design and equipment, grain handling methods and procedures, as well as manual and electronic bulk scales. Established practices are usually followed, but the work requires some judgement to detect and report on scale malfunctions, observe on incorrect weighing operations, suspend weighing operations, and conduct weighing audits.	3 / 93
Specific Vocational Training - The work requires training and experience in grain elevator and equipment operations at a number of elevators within the area to monitor and control the movement of grain into, within and out of the elevator, to recognize problems in operations and equipment, supervise staff, lead audit teams and ensure compliance with governing acts and regulations and established procedures.	3 / 75
<b><u>Effort</u></b>	
Mental - The work requires generally a high level of attention to the operation of the scales and associated equipment and to the flow of grain to ensure that all grain received and shipped is properly handled and weighed.	3 / 55
Physical - The work requires extensive standing and walking and the infrequent climbing of stairs.	2 / 30
<b><u>Responsibility</u></b>	
Resources - There is a responsibility for the effective operation of mechanical and electronic bulk-weighing systems and associated loading and unloading equipment and for ensuring that all parcels of grain are weighed properly. An error in judgement could result in improper mixing of grain parcels or an inaccuracy in the weights of grain shipments which would cause time and/or monetary loss to the private grain elevator and the shipper or buyer of the grain.	3 / 72
Safety of Others - Care is required to ensure that safe work practices are observed by subordinates.	2 / 23
<b><u>Working Conditions</u></b>	
Environment - The work involves occasional exposure to temperature extremes and continuous exposure to dust and high levels of noise from mechanical equipment.	2 / 28
Hazards - The work involves occasional exposure to unguarded elevator equipment and moving conveyor belts; the possibility of explosions is always present.	CI / 32
<b><u>Supervision</u></b>	
The work requires assigning tasks to subordinates (two person-years) and instructing them in weighing operations and equipment inspection.	AI

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 60

Level: 5

Sub-group: Grain Handling and Weighing

Descriptive Title: Weighing Assistant

Basic Point Rating: 367

Supervisory Rating: n/a

Summary

Under a Grain Weigher at a grain elevator, monitors the recording of grain moving into elevators, determines whether railway cars are intact when received and ensures they are properly unloaded; records and compiles reports on any irregularities which arise in the receiving of grain; assists with the conduct of official audits and performs other duties.

Duties% of Time

Monitors the recording of grain moving into elevators, by	55
- verifying the correctness of information recorded on shunt slip (work order) such as railway car number, unloading track, hopper and shipping weight,	
- checking and recording the car numbers and presence and condition of seals on incoming cars and notifying the weigher if dumping sequence is not being followed,	
- checking and recording the condition of railway cars with particular attention to those areas of the cars prone to leakage or pilferage,	
- ensuring that receiving pits and/or garners are clear of grain from previous carloads prior to giving clearance to proceed with dumping subsequent cars, and	
- ensuring that the cars are emptied completely and that the entire contents have been elevated before signalling the weigher that dumping operation is complete.	
Records and compiles reports on any irregularities which arise in the receipt and unloading of grain, by	30
- completing coded leak reports to be used by concerned parties as proof for claim purposes,	
- reporting on irregularities, incidents or accidents which may affect the weight of incoming grain, and	
- attaching information from car and seal examination to weigher's records to compile an official weigh sheet.	
Assist with the conduct of official grain audits, by	10
- sealing and authorizing the opening of storage bins in proper sequence during grain audits,	
- verifying that audited grain is transferred to designated bins, and	
- maintaining a record of all grain movements within the elevator during the conduct of audits.	
Performs other duties such as estimating and recording any grain left in box cars because it is unfit for unloading, and checking grain handling equipment and aspiration systems for blockages.	5

Degree/  
Points

**Specifications**Skill and Knowledge

Basic Knowledge - The work requires the recording of car numbers and the performance of simple arithmetic calculations to roughly estimate contents of railway cars. It also requires keeping records of the condition of railway cars and their contents and the circumstances surrounding instances of incorrect operation, completing coded leak reports and preparing reports on irregularities, incidents or accidents relative to the weighing operation. 2 / 40

Comprehension and Judgement - The work requires sufficient understanding to carry out detailed instructions and requires some judgement in determining the condition of cars and in preparing reports. 2 / 64

Specific Vocational Training - The work requires some experience in an elevator to become familiar with operating methods and procedures as well as experience in recognizing and identifying operating irregularities. 2 / 50

Effort

Mental - The work requires only normal attention to check incoming cars and ensure that the contents of cars are completely unloaded, kept separate from other shipments and transferred to the weigh scale. 1 / 15

Physical - The work requires continuous periods of standing and walking and occasionally climbing ladders and stairs during the inspection of incoming railway cars and the monitoring of the unloading and elevating processes. The work also requires considerable crouching when examining the seals of hopper cars. 3 / 45

Responsibility

Resources - There is a responsibility for ensuring that cars are unloaded and elevated properly and that irregularities are reported. 2 / 46

Safety of Others - Reasonable care is required to prevent injury to others when instructing elevator employees to move railway cars or open hoppers. 2 / 23

Working Conditions

Environment - The work requires frequent exposure to all weather conditions and continual exposure to high levels of noise from mechanical equipment and moving rolling stock. 3 / 44

Hazards - The work requires frequent exposure to unguarded elevator equipment and to moving conveyor belts, winch cables and railway cars. C2 / 40

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 61

Level: 10

Sub-group: Construction Inspecting

Descriptive Title: Construction Officer

Basic Point Rating: 651

Supervisory Rating: n/a

Summary

Under the Regional Superintendent of Construction, oversees construction of and alterations to houses and farm buildings that are financed under the provisions of the Veterans' Land Act and other related legislation, within a designated zone; reviews requests for additional loans, estimates cost of building and recommends the approval or rejection of the proposal; counsels applicants in the choice of plans, sites and building materials; prepares contract documents; and performs related duties.

Duties% of Time

Oversees, within a designated zone, all phases of the construction or alteration of houses and farm buildings that are being financed under the provisions of the Veterans' Land Act and related legislation, by	45
<ul style="list-style-type: none"> <li>- inspecting contract work to ensure its conformance with contracts, drawings, specifications, residential standards, and local by-laws and building codes,</li> <li>- advising contractors of construction requirements, both orally and in writing, in order to prevent mistakes and infractions of contracts, specifications and construction requirements,</li> <li>- halting the work performed when necessary to enforce the terms of the contract,</li> <li>- evaluating work performed, recommending progress payments, or recommending cancellation of the contract when required,</li> <li>- discussing outstanding material or labour accounts with the contractor and suppliers to ensure that the uncompleted portion of the contract can be completed with the remaining funds, and</li> <li>- authorizing minor deviations from the agreement in accordance with established directions, recording authorized changes in the contract documents, and keeping intact sets of contract documents for each project.</li> </ul>	
Reviews requests from veterans for additional loans, by	20
<ul style="list-style-type: none"> <li>- inspecting property to determine the security value and acceptability of the proposed improvements,</li> <li>- interviewing applicants to determine the technical and financial soundness of the proposed work, and</li> <li>- completing documents and reports and recommending the approval or rejection of loan applications.</li> </ul>	
Counsels applicants requesting assistance under the legislation, by	15
<ul style="list-style-type: none"> <li>- explaining advantages and disadvantages of proposed plans, specifications, and land and services, and</li> <li>- estimating the cost of the proposed work, suggesting modifications to meet the applicants' needs or to make the proposals economically possible.</li> </ul>	
Completes construction contract forms and specifications, up-dates drawings, procures and notarizes contractors' signatures, and submits documents for approval.	10

% of Time

Performs related duties, such as organizing field work and inspection tours, preparing and delivering talks on technical matters, and organizing and instructing night classes for prospective home owners wishing to act as their own contractor.

10

Degree/  
Points**Specifications**Skill and Knowledge

Basic Knowledge - The work requires interpreting house blueprints, contracts, specifications, technical manuals and departmental regulations, and writing letters and reports to expedite the proper fulfillment of contracts. It also requires a knowledge of shop mathematics to calculate the cost of proposed construction, using quoted prices and material lists, and to check the layout of work in all the building trades involved in the contract.

6 / 104

Comprehension and Judgement - The work requires a thorough understanding of the principles that apply to the construction of buildings, of the use of tools and equipment, and of the properties of materials. The work also requires a knowledge of the loan provisions of the Veterans' Land Act and departmental regulations governing residential standards. Judgement is required when interpreting contract documents, when evaluating uncompleted work, and when counselling applicants concerning their proposed plans.

5 / 150

Specific Vocational Training - The work requires training and experience in one of the construction trades, such as general carpentry, and sufficient knowledge to the other trades to recognize quality work and counsel applicants regarding the construction of homes and farm buildings. The work also requires training and experience in following departmental regulations and administrative procedures as well as local by-laws and building codes relative to the several trades involved.

6 / 200

Effort

Mental - The work generally requires a high level of attention with sustained periods of concentration when reviewing specifications, inspecting work in progress and when carrying out other more demanding aspects of the work, such as counselling applicants.

3 / 55

Physical - Much of the work is performed in an office environment. There is a requirement for walking and standing and for some climbing when inspecting work in progress.

1 / 15

Responsibility

Resources - There is a responsibility to ensure that the estimated cost of building, upon which the contract is based, is a realistic cost, that agreed contributions of labour are made by the applicant, and that the Director, Veterans' Land Act, is protected at all times from over-expenditure of contract funds or under-expenditure of work so that the contract may be fulfilled within the contract amount and period of time.

3 / 72

Safety of Others - The work entails responsibility for ensuring that contractors maintain safe conditions.

2 / 23

Working Conditions

Environment - The work frequently requires extended absences from home and occasionally requires exposure to inclement weather.

2 / 28

Hazards - The probability of injury is slight. There is an infrequent exposure to injury when inspecting partially completed buildings.

AI /4

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 62

Level: 9

Sub-group: Construction Inspecting

Descriptive Title: Inspector of Construction,  
Small Projects

Basic Point Rating: 593

Supervisory Rating: n/a

Summary

Under an area architect of the Department of Public Works, performs inspection tasks at a designated work site to assist in overseeing new construction projects and the performance of other work carried out for the department by contractors; and performs related duties.

Duties

% of Time

Oversees and inspects the detail of work being performed by contractors, to ensure adherence to contract agreements, by 80

- maintaining and studying a complete set of drawings and specifications for assigned projects to know exactly what is required, and obtaining clarification of specifications from the area architect or a district staff officer,
- regularly observing each stage of work performed, the methods employed and standard of workmanship, the quality and quantity of materials used, and the distribution of labour by trade, relating this information to the project specifications, and reporting observed or feared discrepancies,
- discussing with the contractors the need for deviations from the contract agreement and correction of unauthorized deviations and approving minor deviations to meet local conditions,
- composing weekly and monthly reports, including check lists and drawings, to inform the architect and district office of the progress of the work, and certifying the extent of completed work and the amount of material on the site, and
- accompanying inspecting officers of the department during their investigations to assist them to examine unusual features, identify deficiencies, and explain "closed-in" work.

Performs related duties, such as recording on "as built" drawings the changes authorized during construction, observing and reporting on concrete sampling and testing procedures, and requesting the contractor to delay the progress of work where an opinion of the architect is required. 20

Specifications

Degree/

Points

Skill and Knowledge

Basic Knowledge - The work requires reading detailed construction drawings and specifications. It also requires knowledge of shop mathematics, including elementary geometry, to make observations, take measurements at the work site, and to read and extract data from specifications, related drawings and technical instructions.

5 / 88

Degree/  
Points

Comprehension and Judgement - The work requires an understanding of the principles that apply to the trades engaged in construction of buildings, of the properties of materials, and of the techniques used to fabricate structures to withstand varying loads. Judgement is required when permitting minor deviation from the original intent to meet local conditions, when inspecting for quality of work, when certifying work for progress payments, and when requesting delays in progress to obtain the opinion of the area architect.

5 / 150

Specific Vocational Training - The work requires training and experience in one of the construction trades and experience with other construction trades sufficient to recognize the usual organization and scheduling of work and compliance with good trade practices. Experience is also required in keeping records and filing documents.

6 / 200

Effort

Mental - The work requires attention when observing the performance of work, extracting detailed information from specifications and taking accurate measurements. It requires close attention to inspect concurrent work performed by separate work parties or sub-contractors, prepare reports and discuss deviations.

3 / 55

Physical - The duties require intermittent walking, standing and climbing at construction sites and occasionally working in a cramped position for short periods to make observations or take measurements.

1 / 15

Responsibility

Resources - There is responsibility for representing the department at work site, for certifying the completion of sections of work, for the custody of contract documents and other records, and for approving minor deviations from contracts.

2 / 46

Safety of Others - Care is required to ensure that approved safety practices are enforced by the contractor and that the project is well marked as a work site to prevent injury to workers and members of the general public located on adjacent property.

2 / 23

Working Conditions

Environment - The work environment is generally good. There is an infrequent requirement to be away from home for an extended period and the occasional exposure to inclement weather.

1 / 12

Hazards - The probability of injury is minimal. There is occasional exposure to injuries when inspecting work in progress during the initial stages of construction.

AI / 4

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 63

Level: 13

Sub-group: Construction Inspecting

Descriptive Title: Regional Construction Supervisor

Basic Point Rating: 786

Supervisory Rating: C4

Summary

Under a regional engineer, oversees the construction and maintenance of schools, residential dwellings, roads, water and sewer installations and other facilities at a number of Indian agencies within the region; and performs related duties.

Duties% of Time

Oversees the construction and maintenance of schools, residential dwellings, roads, water and sewer installations, and other facilities at a number of Indian agencies, by	50
- travelling to work sites and inspecting the work of contractors and departmental trades personnel for conformance with drawings, contract specifications, departmental regulations, and good trade practices,	
- evaluating and approving or rejecting work,	
- certifying the completion of contract work for purposes of payment, and	
- interpreting drawings, contract specifications and departmental regulations and advising contractors of requirements.	
Carries out administrative tasks to expedite construction and maintenance activities, by	30
- completing specifications, lists of materials, and cost estimates,	
- sketching proposed work in minor construction and repair projects, and up-dating drawings,	
- reviewing submitted tenders and recommending their acceptance or rejection,	
- initiating letters to contractors, school principals, Indian chiefs and councillors, suppliers, and various provincial and federal officials,	
- checking pay rates and work sites to ensure compliance of the contractor with government regulations on fair wages and safety practices, and	
- writing reports dealing with the progress of projects.	
Supervises, through subordinate supervisors, trades personnel engaged in maintenance and repair of buildings and utilities, by	10
- assigning work,	
- checking work for quantity and quality,	
- instructing newly appointed employees in work methods and procedures, and	
- recommending action in regard to promotions, breaches of discipline, and the number of employees required.	
Performs related duties, such as inspecting agency structures and recommending maintenance and repairs, assisting in the preparation of annual estimates, keeping up-to-date records of drawings, contract specifications and security deposits, taking observations with a transit, and serving on selection boards.	10

	<u>Degree/ Points</u>
<b><u>Specifications</u></b>	
<u>Skill and Knowledge</u>	
Basic Knowledge - The work requires writing and presenting comprehensive reports on the condition of existing buildings and other structures, recommending the appropriate corrective action, and initiating correspondence with contractors, school principals, insurance companies and various government officials to expedite current and proposed construction projects. The work also requires reviewing tenders.	6 / 104
Comprehension and Judgement - The work requires a thorough understanding of the principles that apply to construction of buildings, roads, and water and sewage installations, of the properties of materials, and of the use of tools and equipment. Judgement is required when interpreting contract documents, evaluating completed or uncompleted work and organizing field trips.	6 / 180
Specific Vocational Training - The work requires training and experience in one of the construction trades, such as general carpentry, extensive experience in supervising a variety of construction projects, and sufficient exposure to the other trades to ensure work meets local or national building codes. It also requires extensive experience in complying with departmental regulations and administrative procedures.	7 / 250
<u>Effort</u>	
Mental - The work requires attention to the development of a number of separate contracts for various types of projects, to ensure that each contract is followed explicitly and that the structure and materials are secure while under construction. The work requires attention also when inspecting completed work to ensure that progress payments are not in excess of work completed and that contractors follow government requirements concerning fair wages and safety practices and when interpreting drawings and contract specifications, reviewing tenders, and preparing technical reports.	3 / 55
Physical - The work requires movement around construction sites to see the work in progress. Occasionally it requires climbing to roof level.	1 / 15
<u>Responsibility</u>	
Resources - There is responsibility for overseeing construction and repair projects for conformance with contract specifications, recommending contract payments and the acceptance or rejection of tenders, and keeping records of drawings, contract specifications and security deposits. Errors could result in significant excess payment to contractors before work is satisfactorily completed. The work also entails responsibility for equipment, material and personnel resources.	4 / 100
Safety of Others - Constant care must be taken to establish and maintain or ensure that private contractors or subordinate supervisors establish and maintain safe working conditions and practices.	4 / 50

Degree/  
Points

Working Conditions

Environment - The work frequently requires extended absences from home and occasionally requires exposure to inclement weather.

2 / 28

Hazards - The probability of injury is minimal. There is occasional exposure to injuries when inspecting work during initial stages of construction or when driving under adverse weather conditions.

AI / 4

Supervision

There is a requirement to assign work to a dispersed staff (37 staff-years), including subordinate supervisors, check work for quantity and quality, evaluate employee performance, and recommend action in regard to promotions, breaches of discipline and the number of employees required.

C4

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 64

Level: 12

Sub-group: Construction Inspecting

Descriptive Title: Shop Superintendent,  
Marine Aids

Basic Point Rating: 770

Supervisory Rating: D6

Summary

Under the district engineer at a Marine Agency, plans, organizes and controls the operations of a number of workshops for the repair, maintenance and modification of aids to navigation, boats, buildings, wharves and other structures; supervises, trains and develops staff; plans, organizes and controls the fabrication of buoys, towers and boats; provides advice to management and staff; and performs related duties.

Duties% of Time

- Plans, organizes and controls the operations of a number of workshops accommodating the blacksmithing, boilermaking, diesel-engine repairing, electrical, machining, painting, plumbing, sheet-metal working, welding, and woodworking trades, which are used in repairing, maintaining and modifying buoys, beacons, towers, lights, engines, boats and other vessels, buildings, wharves and structures, and a variety of related equipment, by
- participating with the engineer in establishing overall work schedules and priorities,
  - reviewing work commitments and priorities, allocating work to groups and delegating to subordinate supervisors the responsibility for the detailed scheduling of work,
  - co-ordinating work between shops and trades to meet the sailing schedules of supply ships,
  - approving job estimates submitted by subordinate supervisors,
  - reviewing work progress and quality of work,
  - submitting demands for material and equipment to management for approval, and
  - initiating demands for the replacement of shop equipment.
- 35
- Supervises, through subordinate supervisors, and provides for training of, a staff of approximately 75 trades people, helpers and labourers in 10 skilled trades, by
- assigning work to subordinate shop supervisors and reviewing its progress,
  - appraising the performance of subordinate supervisors and discussing the appraisal with them, and reviewing ratings made by subordinate supervisors,
  - assessing the skill of the work groups and recommending special training where necessary or practicable,
  - instructing subordinate supervisors in shop safety practices,
  - reviewing leave schedules,
  - recommending disciplinary action, and
  - reviewing and recommending changes to the establishment.
- 30

% of Time

Plans, organizes and controls the fabrication of buoys, towers and boats, where local contractors or other agencies are unable to supply the demand, by 15

- estimating unit and total costs,
- scheduling work and organizing the procurement of materials,
- co-ordinating work between workshops and trades,
- reviewing work for quality and quantity, and
- ensuring that accurate records covering labour, materials and other costs are maintained.

Provides advice to superiors, subordinates and others on all matters concerning shop management and production, by 15

- assessing the need for new or modified equipment and recommending procurement to management,
- ensuring the maintenance of up-to-date technical publications and drawings for use in work assignments, and
- discussing technical problems with subordinate supervisors and suggesting methods to resolve them.

Performs related duties, such as interviewing and selecting job applicants and acting as a member of examining boards. 5

Degree/  
Points

Specifications

Skill and Knowledge

Basic Knowledge - The work requires participation in determining equipment and establishment requirements for a large and varied work force, in calculating remaining life of tools and equipment and assessing the economic advantages of repair or write-off, in estimating job costs in terms of labour, machine time and use of facilities, and in scheduling the work to meet priorities. The work requires interpreting difficult drawings and using a variety of technical data. 6 / 104

Comprehension and Judgement - The work requires a thorough understanding of the principles that apply to the planning, organizing, controlling and supervising of a large multi-trade work group. Judgement is required in resolving complex technical and operational problems. 6 / 180

Specific Vocational Training - The work requires training and experience in maintenance and production shopwork in order to supervise a staff engaged in the maintenance and repair of flotation vessels, structural steel towers, engines and other mechanical equipment and in the fabrication and production of steel-plate items and wooden boats, working to prescribed standards. 7 / 250

Effort

Mental - The supervision of a number of diverse shops generally requires a high level of attention when establishing priorities, allocating to and coordinating work between shops, approving job estimates, resolving operational and technical problems, and when carrying out other similarly demanding aspects of the work. 3 / 55

Degree/  
Points

Physical - The work requires occasional movement between shops, in the yard, and on the wharf. 1 / 15

Responsibility

Resources - There is responsibility for ensuring that shop facilities and staff are used to the best advantage and for the accurate estimating of costs on which contracts may be let. 4 / 100

Safety of Others - Constant attention to the effectiveness of the safety program is required to see that workshops and sites are kept free of potential hazards and that safe work practices are observed in all areas. 4 / 50

Working Conditions

Environment - The work environment is generally good, however there is occasional exposure to noise and inclement weather. 1 / 12

Hazards - The probability of injury is minimal, there is occasional exposure to minor injuries such as abrasions while inspecting work. AI / 4

Supervision

The work requires establishing work schedules and priorities. It requires appraising and reviewing work progress with subordinate supervisors, adjusting schedules and assigning a work force of approximately 75 trades people, labourers and helpers, recommending disciplinary action and changes in the establishment, and implementing and modifying staff training and fire and accident prevention programs. D6

BENCH-MARK POSITION DESCRIPTION

Bench-mark Position Number: 65

Level: 13

Sub-group: Construction Inspecting

Basic Point Rating: 786

Supervisory Rating: E7

Descriptive Title: Superintendent, Maintenance

Summary

Under the Construction Engineering Officer at a Canadian Forces Base, oversees all repair, maintenance and alteration work to buildings, structures, roads, sewer, oil and water systems, steam and air distribution systems, electrical distribution systems and air-conditioning and refrigeration equipment in the area; supervises a staff of 214 supervisors and trades personnel; and performs related duties.

Duties% of Time

Plans, organizes and controls the operations of a widely scattered construction and maintenance complex, accommodating plumbing, welding, sheet-metal, air-conditioning, refrigeration, electrical, carpentry, masonry and gardening activities in 5 central workshops and 6 detached centres, by

50

- participating with the engineering officer in planning for large and special projects, determining in-house capabilities and the need for contract services,
- establishing a construction maintenance and repair schedule to meet priorities and plans and adjusts schedules to meet emergency requirements,
- reviewing work commitments and priorities, and delegating to section supervisors the responsibility for detailed planning and scheduling of work to ensure correct phasing of work within their units,
- reviewing major-project estimates to verify time, material, and financial requirements,
- reviewing work progress and quality of work and re-deploying staff between centres as required,
- implementing on-the-job training for military staff and vocational students employed or being trained in the shops,
- implementing a continuing program of shop and operator preventive maintenance inspections,
- authorizing the expenditure of funds for building materials up to specified amounts and certifying payment of invoices for goods and services received,
- inspecting the work of contractors for conformance with drawings, contract specifications, and good trade practice, approving or rejecting work, and certifying completed work for payment, and
- initiating action to increase or decrease distribution - account inventories covering shop supplies, tools, furniture and equipment.

Directs the provision of internal administrative services for the unit including stores procurement; activity scheduling and reporting; inventory, manpower utilization, cost and personnel records; and training requirements, by

35

- establishing levels of authority and developing and recommending changes in the organizational structure to cope more efficiently with the workload,

% of Time

- writing reports in support of special studies on such matters as wages, manpower usage, apprentices, accidents and inventory holdings, and advising senior management on auditor's reports, progress of special projects, levels of stocks and other matters,
- assessing the training needs of subordinates, arranging for training courses and nominating staff for attendance at courses,
- exchanging technical information with manufacturers, suppliers, and various provincial and municipal officials,
- developing and updating technical trades examinations and competition posters, and assisting on examination boards as a technical adviser, and
- attending local and national conferences on Construction Engineering topics and safety.

Supervises and develops, through subordinate shop supervisors, a staff of 214 in nine recognized trades, by

10

- assigning work to subordinate supervisors and reviewing its progress,
- appraising the performance of subordinate supervisors and reviewing appraisals prepared by them on their own subordinates,
- promoting and monitoring job safety programs in the section,
- reviewing and approving training schedules, and
- recommending disciplinary and promotion actions and preparing responses to grievances.

Performs related duties, such as participating in the compilation of the annual operating budget, investigating accidents and co-ordinating activities with those of other base personnel.

5

Degree/  
Points

Specifications

Skill and Knowledge

Basic Knowledge - The work requires investigating and assessing equipment and staff requirements and training for a large and diverse production organization which provides maintenance services for the base, establishing cost benefits for all requirements, and developing and implementing construction and maintenance schedules. There is also a requirement to review and assess job costs and to develop and implement cost control systems. The work requires reading and interpreting complex drawings, specifications, collective agreements and technical manuals and applying shop mathematics. There is also a requirement to write correspondence and technical reports.

7 / 120

Comprehension and Judgement - The work requires an understanding of the practical application of building construction principles, and of the use of related tools and heavy equipment. It requires initiative and judgement in establishing levels of authority, developing and implementing administrative procedures, and in coordinating the activities of several multi-trade workshops and job centres. It also requires judgement in assessing production results and performance in order to effectively cope with construction and maintenance schedules, in determining equipment, establishment and training requirements, and in making recommendations to management and/or customers regarding changes in target dates or workload scheduling.

6 / 180

	<u>Degree/</u>
	<u>Points</u>
Specific Vocational Training - The work requires training and experience in applying the principles, techniques and practices of various construction disciplines and building trades in order to plan, organize, control and supervise the activities of a large, multi-trade workforce engaged in the construction, alteration and repair of buildings and support systems.	7 / 250
 <u>Effort</u>	
Mental - The work requires a high degree of attention to plan construction and maintenance projects, adjust schedules to meet priorities and emergency requirements, resolve difficult and highly technical problems and to administer and supervise a large staff in several multi-trade workshops spread over a large geographical area.	3 / 55
Physical - There is the occasional requirement to walk between the office, shops and construction sites.	1 / 15
 <u>Responsibility</u>	
Resources - There is responsibility for the effective use of materials, equipment and facilities with a very high replacement value, for the effective employment of a large workforce, and for authorizing the expenditure of funds to purchase materials within prescribed limits.	4 / 100
Safety of Others - Constant attention is needed to ensure that trades workers follow safe work habits and comply with all safety regulations to prevent serious injuries. There is also a requirement to ensure that safety programs are developed and implemented.	4 / 50
 <u>Working Conditions</u>	
Environment - The majority of time is spent in an office environment, with occasional exposure to dirt, noise and inclement weather when visiting shops and construction sites.	1 / 12
Hazards - The probability of injury is minimal, there is occasional exposure to minor injuries such as cuts and bruises when visiting sites and workshops.	AI / 4
 <u>Supervision</u>	
The work requires participating in the advance planning of construction and maintenance projects, in establishing work schedules and priorities, coordinating and directing the use of production, human and material resources and developing and implementing staff trades training and safety programs. It also requires supervising a staff of 214 located in 5 central shops and 6 detached work centres, reviewing work progress with subordinate supervisors, and resolving personnel and union problems.	E7