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EXAMPLE JOB DESCRIPTION

RESPONSIBILITIES

This section is an opening statement describing the general responsibilities required by the position, and provides an overall view of the position's functions. This information is derived from the Dictionary of Occupation Titles (DOT's) for the related position.

RESPONSIBILITIES INCLUDE:

- ❖ This section provides a more specific overview of the job responsibilities required by the position. This information is derived from the Dictionary of Occupation Titles (DOT's) for the related position.

SPECIFIC SKILLS:

This section is an opening statement describing the general knowledge and skills required by the position, and provides an overall view of the position's required knowledge and skills. This information is derived from the Dictionary of Occupation Titles (DOT's) and the essential job functions for the related position.

SPECIFIC SKILLS INCLUDE:

- ❖ This section provides a more specific overview of the job knowledge and skills required by the position. This information is derived from the Dictionary of Occupation Titles (DOT's) and the essential job functions for the related position.

FLSA STATUS:

This section describes the Fair Labor Standards Act's determination of the position.

(Exempt vs. Non-Exempt) This information is derived from the Dictionary of Occupation Titles, the Fair Labor Standards Act, and the responsibilities, education, skills and knowledge association with the position.

Exempt Categories: *Executive, Administrative, Professional*

BACKGROUND:

- ❖ This section details the recommended or required work and educational experience for the position. This information is derived from the Dictionary of Occupational Titles, Essential Job Functions, and Vanamatic's general requirements for the associated position.

ESSENTIAL JOB FUNCTIONS CHECKLIST

EXAMPLE JOB DESCRIPTION (Job Title)

Alternate Title(s): Alternate Job Titles associated with position
Occupational Code(s): This code is the foundation for the Dictionary of Occupational Titles job analysis and tracking system. *(A position may have more than (1) occupational code, (Blended)*

Worker Functions: Worker Functions are activities, which identify worker relationships to Data, People and Things, and is structured to suggest an upward progression from the less complex to the more complex relationships

Data: Data Functions are an arrangement of different kinds of activities involving information, knowledge, or concepts

People: People Functions are an arrangement of different kinds of interactions and relationships with people

Things: Things Functions can be divided into relationships based upon the worker's involvement with either machines and equipment or with tools and work aids.

General Educational Development: General Educational Development embraces those aspects of education (formal and informal) which are required of the worker for satisfactory job performance.

The General Educational Development scale is composed of three divisions: Reasoning Development, Mathematical Development, and Language Development. The description of the various levels of language and mathematical development are based on the curricula taught in schools throughout the United States.

General Educational Development is structured to suggest an upward progression from the less complex to the more complex educational development.

Specific Vocational Preparation: Specific Vocational Preparation is defined as the amount of lapsed time required by a typical worker to learn the techniques, acquire the information, and develop the facility needed for average performance in a specific job-worker situation.

- 1 Short demonstration only
- 2 Anything beyond short demonstration up to and including 1 month
- 3 Over 1 month up to and including 3 months
- 4 Over 3 months up to and including 6 months
- 5 Over 6 months up to and including 1 year
- 6 Over 1 year up to and including 2 years
- 7 Over 2 years up to and including 4 years
- 8 Over 4 years up to and including 10 years
- 9 Over 10 years

Temperaments: Temperaments are the adaptability requirements made on the worker by specific types of jobs. The category of Temperaments is included in job analysis because different job situations call for different personality traits on the part of the worker. Experience in placing individuals in jobs indicates that the degree to which the worker can adapt to work situations is often a determining factor for success in that job. Types of temperaments are listed below.

- D - DIRECTING, controlling, or planning activities of others.
- R - Performing REPETITIVE or short-cycle work.
- I - INFLUENCING people in their opinions, attitudes, and judgments
- V - Performing a VARIETY of duties.
- E - EXPRESSING personal feelings.
- A - Working ALONE or apart in physical isolation from others.
- S - Performing effectively under STRESS.
- T - Attaining precise set limits, TOLERANCES, and standards.
- U - Working UNDER specific instructions.
- P - Dealing with PEOPLE.
- I - Making JUDGMENTS and decisions

Aptitude Levels:

Aptitudes are the capacities or specific abilities which an individual must have in order to learn to perform a given work activity. Eleven separate Aptitudes are measured by the Department of Labor and included for each Job Listing.

General Learning: The ability to "catch on" or understand instruction and underlying principles; the ability to reason and make judgments. Closely related to doing well in school.

Verbal: The ability to understand the meaning of words and to use them effectively. Ability to comprehend language, to understand relationships between words, and to understand the meaning of whole sentences and paragraphs.

Numerical: The ability to perform arithmetic operations quickly and accurately.

Spatial: The ability to think visually of geometric forms and to comprehend the two-dimensional representation of three-dimensional objects. The ability to recognize the relationships resulting from the movement of objects in space.

Form Perception: The ability to perceive pertinent detail in objects or in pictorial or graphic material. Ability to make visual comparisons and discriminations and see slight differences in shapes and shadings of figures and widths and lengths of lines.

Clerical Perception: The ability to perceive pertinent detail in verbal or tabular material. Ability to observe differences in copy, to proofread words and numbers, and to avoid perceptual errors in arithmetic computation. A measure of speed of perception is required in many industrial jobs even when the job does not have verbal or numerical content.

Motor Coordination: The ability to coordinate eyes and hands or fingers rapidly and accurately in making precise movements with speed. Ability to make a movement response accurately and swiftly.

Finger Dexterity: The ability to move the fingers and manipulate small objects with the fingers rapidly or accurately.

Manual Dexterity: The ability to move the hands easily and skillfully. Ability to work with the hands in placing and turning motions.

Eye-Hand Coordination: The ability to move the hand and foot coordinately with each other in accordance with visual stimuli.

Color Discrimination: The ability to match or discriminate between colors in terms of hue, saturation, and brilliance. Ability to identify a particular color combination from memory and to perceive contrasting color combinations.

Aptitude Levels:

Each of the eleven Aptitudes shown on the individual Job Listing is rated on a scale of 1 to 5. These Aptitude Levels are useful as analytical tools and are expressed in terms which reflect the amount of the aptitudes possessed by segments of the working population.

Level 1 The top 10 percent of the population. This segment of the population possesses an extremely high degree of the aptitude.

Level 2 The highest third exclusive of the top 10 percent of the population. This segment of the population possesses an above average or high degree of the aptitude.

Level 3 The middle third of the population. This segment of the population possesses a medium degree of the aptitude ranging from slightly below to slightly above average.

Level 4 The lowest third exclusive of the bottom 10 percent of the population. This segment of the population possesses a below average or low degree of the aptitude.

Level 5 The lowest 10 percent of the population. This segment of the population possesses a negligible degree of the aptitude.

Physical Demands:

Physical Demands are used to describe the physical activities that a job requires. **Ratings for Physical Demands** are concerned only with the physical demands of the particular job and are not concerned with the physical capacity of the worker.

Strength: The Physical Demands Strength Rating reflects the estimated overall strength requirement of the job, expressed by one of five terms: Sedentary, Light, Medium, Heavy, and Very Heavy. The Strength Rating represents the strength requirements which are considered to be important for average, successful work performance.

Kneeling: Bending legs at knees to come to rest on knee or knees.

Climbing: Ascending or descending ladders, stairs, scaffolding, ramps, poles, and the like, using feet and legs or hands and arms. Body agility is emphasized.

Balancing: Maintaining body equilibrium to prevent falling when walking, standing, crouching, or running on narrow, slippery, or erratically moving surfaces.

Stooping: Bending body downward and forward by bending spine at the waist, requiring full use of the lower extremities and back muscles.

Crouching: Bending body downward and forward by bending legs and spine.

Crawling: Moving about on hands and knees or hands and feet

Reaching: Extending hand(s) and arm(s) in any direction.

Handling: Seizing, holding, grasping, turning, or otherwise working with hand or hands. Fingers are involved only to the extent that they are an extension of the hand, such as to turn a switch or shift automobile gears.

Fingering: Picking, pinching, or otherwise working primarily with fingers rather than with the whole hand or arm as in handling.

Feeling: Perceiving attributes of objects, such as size, shape, temperature, or texture, by touching with skin, particularly that of fingertips.

Talking: Expressing or exchanging ideas by means of spoken word to impact oral information and to convey detailed spoken instructions to other workers accurately, loudly, or quickly.

Hearing: Perceiving the nature of sounds by ear.

Taste/Smell: Distinguishing, with a degree of accuracy, differences or similarities in intensity or quality of flavors or odors, or recognizing particular flavors or odors, using tongue or nose.

Near Acuity: Clarity of vision at 20 inches or less.

Far Acuity: Clarity of vision at 20 feet or more.

Depth. Perception: Three-dimensional vision. Ability to judge distances and spatial relationships so as to see objects where and as they actually are.

Accommodation: Adjustment of lens of eye to bring an object into sharp focus. This factor is required when doing near point work at varying distances from the eye.

Color of Vision: Ability to identify and distinguish colors.

Field of Vision: Observing an area that can be seen up and down or to right or left while eyes are fixed on a given point.

Physical Demands Codes & Frequencies:

Each factor, other than Strength, which has its own, rating system, is rated according to the following four frequency codes:

Code	Frequency	Definition
N	Not Present	Activity or condition does not exist.
O	Occasionally	Activity or condition exists up to 1/3 of the time.
F	Frequently	Activity or condition exists from 1/3 to 2/3 of the time.
C	Constantly	Activity or condition exists 2/3 or more of the time.

For purposes of the ADA, it is reasonable to state that **Physical Demand factors of specific jobs, which show either "F" or "C" (Frequently or Constantly) are ESSENTIAL elements, or demands, occurring in that job, since they exist, in general, more than half of the time.** Physical Demand factors shown as "N" (Not Present) would not be considered essential to that position. Again for purposes of ADA compliance, Physical Demands which show an "O" (Occasionally) may be considered essential for a specific job, depending on other considerations; i.e. the consequences of not requiring an employee to perform the action or operate in that condition.

Environmental Conditions:

There are 14 factors used in the DOT to describe the physical surroundings in which a job is performed. The frequency codes used for each Environmental Condition factor, except Noise, are the same as those used to indicate the presence or absence of a Physical Demand: "N" - Not Present; "O" - Occasionally; "F" - Frequently; "C" - Constantly. The code for Noise is based on a scale of 1 to 5, and is explained below.

As with Physical Demands, it is reasonable to state that **Environmental Condition factors of specific jobs which show either "F" or "C" (Frequently or Constantly) are ESSENTIAL elements, or conditions, encountered in that job, since they are present, in general, more than half of the time.** Environmental Condition factors shown as "N" (Not Present) would not be considered essential to that position.

For purposes of ADA compliance, Environmental Conditions which show an "O" (Occasionally) may be considered essential to a specific job, depending on other considerations; i.e. the consequences of not requiring an employee to operate within that condition.

Noise: This factor is expressed by one of five numerical code levels:

Code	Level	Examples
1	Very Quiet	Isolation booth for hearing test; deep sea diving; forest trail
2	Quiet	Library; many private offices; funeral reception, golf course; art museum
3	Moderate	Business office where typewriters are used; department store; grocery store; light traffic; fast food restaurant at off-hours
4	Loud	Can manufacturing department; large earth-moving equipment; heavy traffic
5	Very Loud	Rock concert - front row; jackhammer work; rocket engine testing area during test

Atmospheric Conditions: Exposure to conditions such as fumes, noxious odors, mists, gases, and poor ventilation, that affect the respiratory system, eyes, or the skin.

Weather: Exposure to outside atmospheric conditions.

Cold: Exposure to non weather-related cold temperatures.

Hot: Exposure to non weather-related hot temperatures.

Wet/Humid: Contact with water or other liquids or exposure to non weather-related humid conditions.

Oils/Solvents: Exposure to possible injury from contact with oils, coolants and solvents.

Vibration: Exposure to a shaking object or surface.

Moving Mechanical Parts: Exposure to possible bodily injury from moving mechanical parts of equipment, tools, or machinery.

Electric Shock: Exposure to possible bodily injury from electrical shock.

Radiation: Exposure to possible bodily injury from radiation.

Explosives: Exposure to possible injury from explosions.

High, Exp. Places: Exposure to possible bodily injury from falling.

EMPLOYEE SIGN AND DATE: (ADA, ESSENTIAL JOB FUNCTIONS ACKNOWLEDGEMENT)

After review of the above essential job functions for the position, the employee must sign and date that all function have been reviewed and can meet the essential requirements and conditions.

See Next page for ADA requirements and reasonable accommodation.

I have reviewed the information on this form and am able to meet these essential requirements and conditions.

Signature: _____

Date: ____/____/____

I would like to discuss accommodations.

Signature: _____

Date: ____/____/____

ADA, ESSENTIAL JOB FUNCTIONS, & REASONABLE ACCOMODATION

What is a reasonable accommodation?

A reasonable accommodation is any change or adjustment to a job or work environment that permits a qualified applicant or employee with a disability to participate in the job application process, to perform the essential functions of a job, or to enjoy benefits and privileges of employment equal to those enjoyed by employees without disabilities. For example, a reasonable accommodation may include:

- acquiring or modifying equipment or devices,
- job restructuring,
- part-time or modified work schedules,
- reassignment to a vacant position,
- adjusting or modifying examinations, training materials, or policies,
- providing readers and interpreters, and
- making the workplace readily accessible to and usable by people with disabilities.

Because the reasonableness of an accommodation involves an analysis of how the employee's condition affects his or her ability to perform the essential (as distinguished from marginal) functions of the job, the departmental unit must, as an initial step, analyze the essential functions of the position and how each function is performed; for example, does the position exist to perform a specific task, how much time is spent performing the functions that comprise the job, and what are the consequences of not performing the functions.

Who should initiate a request for reasonable accommodations?

The employee should initiate the request for an accommodation in the majority of situations.

When a qualified individual with a disability requests an accommodation, the University must make a good faith effort to provide an accommodation that is effective for the individual. Accommodations must be made on a case-by-case basis because the nature and extent of a disabling condition and the requirements of the job may vary. In many cases, an accommodation will be obvious and can be made without difficulty and at little or no cost. The department should consult with the employee as it considers the reasonableness of the requested accommodation.

How do we determine if a request is “reasonable”?

When the employee with a disability requests an accommodation to assist in the performance of a job, the departmental unit, using a problem-solving approach, should:

- (1) Analyze the particular job involved and determine its purpose and essential functions (as distinguished from marginal functions);
- (2) Consult with the individual with a disability to determine the precise job-related limitations imposed by the individual's disability and how those limitations could be overcome with a reasonable accommodation;
- (3) In consultation with the individual to be accommodated, identify potential accommodations and assess the effectiveness each would have in enabling the individual to perform the essential functions of the position; and
- (4) Consider the preference of the individual to be accommodated and select the accommodation that best serves the needs of the individual and the employer.

Example Job Description Revision Record

NO.	REVISION DESCRIPTION	REVISED BY:	DATE
--	Original Issue:	SJW	07/01/2005
NOTE	This section is used to record revisions, updates, format changes, and significant occurrences that affect the DOT and/or the job description.		

INTRODUCTION

On July 26, 1992, the employment provisions of the Americans With Disabilities Act (ADA) went into effect for companies with 25 or more employees. On July 26, 1994, those same provisions will apply to companies with 15 or more employees. The law is intended to remove institutional, occupational and attitudinal barriers to employment of disabled individuals.

In response to the confusion surrounding ADA requirements, as well as the civil remedies available to individuals protected under the law, the PMPA Industrial Relations Committee has developed this **JOB DESCRIPTION WORKBOOK**. In addition to providing members with the documentation necessary to defend against unwarranted job discrimination charges under the ADA, the Workbook is a valuable tool for member companies wishing to gain a better understanding of worker functions in specific jobs, and the prerequisites, aptitudes and attributes necessary for workers to perform acceptably in particular jobs.

The Workbook consists of detailed job descriptions and ratings for worker functions, general educational development, specific vocational preparation, temperaments, aptitudes, physical demands, and environmental conditions. Each of these factors and ratings are explained in great detail later in the Workbook.

The definitions, data and characteristics which form the foundation for this Workbook are taken from two U.S. Government, Department of Labor publications: the Dictionary of Occupational Titles, Fourth Edition, Revised 1991 (available from the Government Printing Office, stock number 029-013-00094, two volume set, \$40.00), and The Revised Handbook for Analyzing Jobs (also available from the Government Printing Office, stock number 029-013-00095-1, \$12.00). Members who desire additional information should consider purchasing either or both of these publications from the Government Printing Office.

All data for the 82 Job Listings in the Workbook was painstakingly reviewed by the Industrial Relations Committee and, where necessary, revised or amended to better reflect actual job duties and conditions present for those positions in the average precision turned parts company.

The resulting product, this Workbook, can serve as a positive defense against charges of employment discrimination under the ADA. Moreover, once you have become familiar with the structure and information presented, the Industrial Relations Committee is convinced that this Workbook will serve many other useful purposes for member companies.

Member companies should understand that this publication is not intended as a simple "drop in" job description or job analysis system. This project has been titled a "Workbook" for very specific reasons. Each company should carefully review the job descriptions and all components for each position present in your company and make any adjustments necessary to make them relevant to the individual company operation.

For purposes of ADA compliance, written job descriptions, which include the essential functions of the position, represent the best defense against a charge of employment discrimination. Another, and equally effective, defense is the specific employer's judgments as to which functions are essential. Both of these defenses can be met by thoroughly reviewing, revising where necessary, and integrating this Workbook into your existing Human Resource Management structure.

The PMPA Industrial Relations Committee is pleased and proud to make this new management tool available to the membership. Questions on any of the data, components, ratings, or descriptions contained in this Workbook should be directed to Dave Burch at PMPA headquarters.

GENERAL INFORMATION

BACKGROUND

This publication evolved out of the Industrial Relations Committee's desire to provide the membership with more precise job candidate selection and hiring guidance in response to the employment discrimination provisions of the Americans with Disabilities Act.

The Committee's effort takes the form of new, U.S. Government-developed (and PMPA-modified) job descriptions, requirements, aptitudes, attributes, and other job-related characteristics. To prepare this publication, PMPA accessed an electronic data file version of the Dictionary of Occupational Titles, which included all text and data found in the printed version, in addition to individual job title listings for aptitudes, temperaments, physical demands, and environmental conditions. Then a specialized, searchable database was constructed to import and archive all of the DOT data.

The PMPA Industrial Relations Committee then selected 82 job titles (from the more than 15,000 available) which are commonly found in precision turned parts companies to form the working files for this publication. The Committee thoroughly reviewed the job descriptions, worker functions, capacities, requirements, attributes, and other components of each Job Listing, making modifications to some to better reflect circumstances prevalent in this Industry.

RELATIONSHIP TO PMPA WAGE & HOUR SYSTEM

While the Committee is pleased to provide enhanced job descriptions for positions commonly found in precision metalworking companies, it has not set out to replace the standard list of job titles covered in the PMPA Wage & Hour Survey/Report. Nor, has it sought to replace the PMPA Job Classification System. At a future point in time, consideration may be given to supplementing the job titles listing used in the Wage & Hour, and/or revising the Job Classification System to incorporate the quantitatively better job descriptions included in this Workbook.

This publication, then, stands on its own as a revision to existing job description information and as a systematic, documented, method for member companies to ensure that job-related criteria alone is used to qualify candidates for advancement and new or continued employment.

ESSENTIAL JOB FUNCTIONS CHECKLIST

PMPA Industrial Relations Bulletin #246 (April 10, 1992), which dealt with the Americans with Disabilities Act, provided members with a checklist called "Essential Job Functions." The use of this form has proven popular with members seeking to document decisions on essential functions of jobs held in their plants.

Since the data contained in this publication is intended to be refined and, if required, modified by the individual company, the Committee felt that replication of this form within the structure of the Workbook would assist the members in further defining the essential functions of each job.

A copy of the Essential Job Functions checklist is reprinted at the end of the introductory portion of this Workbook. Members are encouraged to take the additional step of copying this form and completing it for all job listings found in your company. To complete the form, a representative of management should carefully review the data recorded on the specific Job Listing, compare that with the company's internal procedures and operations for that position, and check-off on the Essential Job Functions form those functions which the employer considers to be essential to the performance of that job.

The employer then has the option, when interviewing candidates, of providing the applicant with a copy of the Job Listing, as well as the Essential Job Functions form.

BLENDED JOBS

Basically, each Job Listing found in this Workbook represents a description of one job; no more and no less. Tasks temporarily assigned to a given worker in addition to regular duties are not considered part of the basic job.

However, in precision turned parts operations, a worker's job is often a blend of several specific jobs. For example, an employee may, at various times, perform the job duties of GENERAL LABORER, MATERIAL HANDLER, or OVERHEAD CRANE OPERATOR. In industry parlance, this worker is said to have a "blended" job. Either the size of the company or the frequency with which one element of such a "blended" job is performed, result in this worker performing a number of different jobs at various times. And, the worker who fills this "blended" job must be able to perform all of the duties, meet all the requirements, and be able to perform under all of the conditions of each of those jobs. When you interview to fill a "blended" job, refer to the Job Listing for each separate position incorporated into that job.

COMPONENTS OF THE JOB LISTING

The following sections of the Workbook provide explanations, descriptions and definitions of each of the components found in the Job Listings: Job Title; Occupational Code; Job Description; Worker Functions; General Educational Development; Specific Vocational Preparation; Temperaments; Aptitudes; Physical Demands; and, Environmental Conditions. You are encouraged to study these descriptions and definitions carefully and refer to them when considering a revision to a Job Listing component.

A FINAL WORD

One last caution: The information contained in this Workbook is only a first step in developing and installing a sound job description system in your company. The data presented in each of the Job Listings is the result of tens of thousands of on-site job analysis studies conducted by the Occupational Analysis Program of the U.S. Employment Service, Department of Labor, over a period of many years.

While the PMPA Industrial Relations Committee has spent countless hours reviewing and, where appropriate, modifying the DOT data, it must be recognized that no two precision turned parts companies operate under the same exact conditions or utilize their employees in exactly the same manner. Nor do they use the exact same terminology to describe various operations and procedures.

For this Workbook to be a success, each company must invest some of their own time in reading, understanding and, where applicable, changing the data presented.

COMPONENTS OF THE JOB LISTING

JOB TITLE

Members familiar with the job titles used in other PMPA publications, such as the Job Classification System Manual and the Wage & Hour Survey/Report, may experience some frustration in matching the job titles found in this publication.

Job titles, descriptions and component rating information incorporated in this publication come from the Department of Labor's Dictionary of Occupational Titles. That publication, while including information on more than 15,000 separate jobs found in the total economy, does not approach the degree of specificity PMPA members have become accustomed to receiving from the Association. The DOT, for example, does not differentiate between Davenport and other types of multiple spindle screw machines; although separate job listings can be found for single spindle and Swiss-type equipment.

Similarly, the DOT does not differentiate, in its job titles, between Classifications A, B, or C, as does PMPA in our Job Classification System Manual and Wage & Hour Survey/Report.

The Industrial Relations Committee consciously sought to retain, wherever possible, the actual wording of the DOT. Consequently, no effort was made to develop separate job descriptions for Davenport machines. Listings will be found for positions involving Multiple Spindle, Single Spindle and Swiss-type equipment. Also, the Committee has not attempted to refine job duties or component ratings within a specific Job Listing to account for Classifications A, B or C.

Further, the DOT and this publication contain a single Job Listing describing the duties of a setup person (Machine Setter), making no distinction between setting up a multiple spindle, single spindle, or other type of machine. The same situation applies to the category of Helper/ Learner. The DOT, and this publication, offers a single Job Listing titled "Machine Helper," the duties of which can be designated by the type of machine involved.

While these concessions to the DOT format may cause members some degree of concern, the Committee felt that the wide range of additional information gained through the DOT more than made up for this inconvenience.

For example, in addition to production, or shop floor job titles, this Workbook also includes listings for many common managerial, administrative, clerical, technical, and other support positions found in typical precision turned parts companies.

For each job reported in this Workbook, a base title is given. The base title, according to the DOT, is the title by which the occupation is known in the majority of companies in which it was found. However, this title may not be the same title given to individuals in your shop performing those duties. Therefore, each Job Listing includes a blank line for you to state the Alternate Title used in your shop for that particular job.

OCCUPATIONAL CODE

Each Job Listing includes a nine-digit entry titled "Occupation Code." This code is the foundation for the Dictionary of Occupational Titles job analysis and tracking system. Although it will play little part in your use of this Workbook, the occupational code does contain information which may increase your understanding of the DOT system of job analysis. In the DOT occupational classification system, each set of three digits in the 9-

digit code number has a specific purpose or meaning. Together, they provide a unique identification code for a particular occupation which differentiates it from all others.

The first three digits of the Occupational Code identify a particular occupational group. All occupations are clustered into one of nine broad "categories" (first digit). The nine primary occupational categories are:

- 0/1 Professional, Technical, and Managerial Occupations
- 2 Clerical and Sales Occupations
- 3 Service Occupations
- 4 Agricultural, Fishery, Forestry, & Related Occupations
- 5 Processing Occupations
- 6 MACHINE TRADES OCCUPATIONS
- 7 Benchwork Occupations
- 8 Structural Work Occupations
- 9 Miscellaneous Occupations

These categories break down into occupationally specific "divisions" (the first two digits). The divisions within the "Machine Trades Occupations" category are as follows:

- 60 METAL MACHINING OCCUPATIONS
- 61 METALWORKING OCCUPATIONS, n.e.c.
- 62/63 Mechanics and Machinery Repairers
- 64 Paperworking Occupations
- 65 Printing Occupations
- 66 Wood Machining Occupations
- 67 Occupations in Machining Stone, Clay, Glass, and Related Materials
- 68 Textile Occupations
- 69 Machine Trades Occupations, n.e.c.

Divisions, in turn, are divided into small, homogeneous "groups" (the first three digits). The groups within the "Metal Machining Occupations" division are as follows:

- 600 Machinists and Related Occupations
- 601 Toolmakers and Related Occupations
- 602 Gear Machining Occupations
- 603 Abrading Occupations
- 604 Turning Occupations
- 605 Milling, Shaping, and Planing Occupations
- 606 Boring Occupations
- 607 Sawing Occupations
- 609 Metal Machining Occupations, n.e.c.

Note, the designation "n.e.c." means (not elsewhere classified).

The middle three digits of the DOT occupational code are the Worker Functions ratings of the tasks performed in the occupation. Those are explained separately, later in this section.

The last three digits of the occupational code number serve to differentiate a particular occupation from all others. A number of occupations may have the same first six digits, but no two can have the same nine digits. If a 6-digit code is applicable to only one occupational title, the final three digits assigned are always 010. If there is more than one occupation with the same first six digits, the final three digits are usually assigned in alphabetical order of titles in multiples of four (010, 014, 018, 022, etc.).

The full nine digits thus provide each occupation with a unique code suitable for computerized operations.

JOB DESCRIPTION

As was stated earlier, this Workbook represents a beginning, not an end, to developing job profiles of positions in your company. Even though the Industrial Relations Committee has edited the U.S. Government data to better reflect terminology and job duties in this Industry, it remains for each company to take the individual job descriptions and review each for consistency and direct applicability in your shop.

To assist in your editing, it would help to have a basic understanding of the sentence structure used to develop these job descriptions.

In developing a job description, authors of the DOT seek answers to three basic questions: What does the worker do? What gets done? or What is the purpose of the worker's action? and, What is the final result? The answers to these questions form the framework of the job description.

The body of each definition usually consists of two or three separate elements: A lead statement, various task element statements, and a third part known as "may" items.

The first sentence in the job description is the lead statement. It is followed by a colon (:). The lead statement summarizes the entire occupation and offers essential information such as worker actions; objective or purpose of the worker actions; machines, tools, equipment, or work aids used by the worker; materials used, products made, subject matter dealt with, or services rendered; and instructions followed or judgments made.

Task element statements indicate the specific tasks the worker performs to accomplish the overall job purpose described in the lead statement.

"May" items describe duties required of workers in this occupation in some establishments but not in others. The word "may" does not indicate that a worker will sometimes perform this task but rather that some workers in different establishments generally perform one of the varied tasks listed.

It is through these "may" items that most individual modifications of the printed job descriptions will occur. For example, the job description for SCREW MACHINE OPERATOR, MULTIPLE SPINDLE includes the following "may" item: "May operate single spindle screw machine." The inclusion of this statement indicates that, in some shops, a multiple spindle operator may be cross-trained to also run single spindle machines. It does not mean that this worker will sometimes operate single spindle screw machines.

A company which cross-trains and expects operators to run both multiple and single spindle machines would modify this definition by eliminating the word "May" from this definition; thus making the operation of single spindle equipment a task element.

Similarly, many machine operator and setup/operator job descriptions in this Workbook include the following "may" item: "May use statistical process control techniques." A company which requires its operators to conduct statistical analysis would eliminate the word "May" and turn that statement into a task element.

Several of the jobs listed in this publication are supervisory and, while having a separate definition, incorporate the duties of what the DOT calls Master Titles. An example of this is MACHINE SHOP SUPERVISOR, PRODUCTION. At the end of the definition, you are referred to the master definition; in this case by a sentence reading: "Performs other duties as described under SUPERVISOR (any industry) Master Title." The use of Master Titles is designed to eliminate unnecessary repetition of tasks common to a large number of occupations. The Master Title definition of SUPERVISOR follows:

SUPERVISOR (any industry) alternate titles: boss; chief; leader; manager; overseer; principal; section chief; section leader;

Supervises and coordinates activities of workers engaged in one or more occupations: Studies production schedules and estimates worker-hour requirements for completion of job assignment. Interprets company policies to workers and enforces safety regulations. Interprets specifications, blueprints, and job orders to workers, and assigns duties. Establishes or adjusts work procedures to meet production schedules, using knowledge of capacities of machines and equipment. Recommends measures to improve production methods, equipment performance, and quality of products, and suggests changes in working conditions and use of equipment to increase efficiency of shop, department, or work crew. Analyzes and resolves work problems, or assists workers in solving work problems. Initiates or suggests plans to motivate workers to achieve work goals. Recommends or initiates personnel actions, such as promotions, transfers, discharges, and disciplinary measures. May train new workers. Maintains time and production records. May estimate, requisition, and inspect materials. May confer with other SUPERVISORS to coordinate activities of individual departments. May confer with workers' representatives to resolve grievances. May set up machines and equipment. When supervising workers engaged chiefly in one occupation or craft, is required to be adept in the activities of the workers supervised. When supervising workers engaged in several occupations, is required to possess general knowledge of the activities involved. Classifications are made according to process involved, craft of workers supervised, product manufactured, or according to industry in which work occurs. Classifications are made according to workers supervised.

Another Master Title which comes into play, particularly when describing entry-level positions is HELPER (any industry). The Master Title definition of HELPER is:

HELPER (any industry)

A worker who assists another worker, usually of a higher level of competence or expertness, by performing a variety of duties, such as furnishing another worker with materials, tools, and supplies; cleaning work area, machines, and equipment; feeding or off bearing machines; holding materials or tools; and performing other routine duties.

A HELPER (any industry) may learn a trade but does so without an agreement with the employer that such is the purpose of their relationship. Consequently, the title HELPER (any industry) is sometimes used as a synonym for APPRENTICE (any industry), a practice that is technically incorrect.

A worker whose duties are limited or restricted to one type of activity, such as moving materials from one department to another, feeding machines, removing products from conveyors or machines, or cleaning machines or work areas is not technically a HELPER (any industry) and is classified according to duties performed as MATERIAL HANDLER (any industry); MACHINE CLEANER (any industry); CLEANER, INDUSTRIAL (any industry). A worker who performs a variety of duties to assist another worker technically is a HELPER (any industry) and is classified according to worker assisted as BRICKLAYER HELPER, DRY-CLEANER HELPER.

Another type of DOT title used in this publication is the Term Title. These include occupations with the same title but few common duties. An example of a term title which has applicability to the precision turned parts industry is GROUP LEADER (any industry), which is defined in the DOT as follows:

GROUP LEADER (any industry) alternate titles: leader; leadman

A term applied to a worker who takes the lead and gives directions to workers while performing same duties as workers. Regularly performs all tasks of workers in group. Supervisory functions are secondary to the production duties performed and worker receives same classification as workers led.

This Term Title differs from the Master Title SUPERVISOR primarily in that the GROUP LEADER's supervisory duties are secondary to the production duties. In the precision turned parts industry, GROUP LEADER would also have an alternate title of leadman.

WORKER FUNCTIONS

Much of the information in the Dictionary of Occupational Titles, and in this publication, is based on the premise that every job requires a worker to function, to some degree, in relation to Data, People, and Things. Worker Functions are activities which identify worker relationships to Data, People and Things.

The following 24 Worker Functions are used to express these relationships by identifying the highest appropriate function in each category:

DATA	PEOPLE	THINGS
0 - Synthesizing	0 - Mentoring	0 - Setting Up
1 - Coordinating	1 - Negotiating	1 - Precision Working
2 - Analyzing	2 - Instructing	2 - Operating-Controlling
3 - Compiling	3 - Supervising	3 - Driving-Operating
4 - Computing	4 - Diverting	4 - Manipulating
5 - Copying	5 - Persuading	5 - Tending
6 - Comparing	6 - Speaking- Signalling	6 - Feeding-Offbearing
	7 - Serving	7 - Handling
	8 - Taking Instructions- Helping	

Although the arrangement within each of the three relationships (Data, People, Things) is structured to suggest an upward progression from the less complex to the more complex relationships, there are instances where hierarchical relationships are limited.

Data Functions are an arrangement of different kinds of activities involving information, knowledge, or concepts. Some are broad in scope and others are narrow. There is considerable overlap in complexity among the Functions. Computing and Copying are more specialized types of functional activities than the other Data Functions.

People Functions are also activities that have little or no hierarchical arrangement. Beyond the generalization that Taking Instructions-Helping is usually the least complex People Function, the remaining Functions have no specific order denoting levels.

Things Functions can be divided into relationships based upon the worker's involvement with either machines and equipment or with tools and work aids. As shown in the following chart, Things Functions also represent levels of complexity based on the worker's decisions or judgments.

Levels of Judgment of Things Functions

Levels of	Nonmachine-related	Machine-Related
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Judgment	Levels	Levels
Considerable judgement	1 - Precision Working	0 - Setting Up
Some latitude for judgement	4 - Manipulating	2 - Operating-Controlling 3 - Driving-Operating
Little or no latitude for judgement	7 - Handling	5 - Tending 6 - Feeding-Off Bearing

Again, members will not find Classifications A, B or C for various machine operators, set-up people, etc. in this publication. However, as the descriptions of Data, People and Things Functions point out, these function codes could be used by individual companies to identify various classifications within specific job titles. The Industrial Relations Committee did not chose to adjust the DOT Data, People and Things ratings for any of the jobs presented in this Workbook.

Note that the Data, People and Things ratings included in each Job Listing are followed by either "S" (Significant) or "N" (Not Significant). Under the DOT system, every job relates significantly to at least one of the three Worker Functions. Some jobs relate significantly to two or all three of the Worker Functions. Beyond this bare explanation, you need not be concerned with these codes.

Worker Functions and Ratings Definitions

DATA: Information, knowledge, and conceptions, related to data, people, or things, obtained by observation, investigation, interpretation, visualization, and mental creation. Data are intangible and include numbers, words, symbols, ideas, concepts, and oral verbalization.

- 0 Synthesizing: Integrating analyses of data to discover facts and/or develop knowledge concepts or interpretations.
- 1 Coordinating: Determining time, place, and sequence of operations or action to be taken on the basis of analysis of data; executing determinations and/or reporting on events.
- 2 Analyzing: Examining and evaluating data. Presenting alternative actions in relation to the evaluation is frequently involved.
- 3 Compiling: Gathering, collating, or classifying information about data, people, or things. Reporting and/or carrying out a prescribed action in relation to the information is frequently involved.
- 4 Computing: Performing arithmetic operations and reporting on and/or carrying out a prescribed action in relation to them. Does not include counting.
- 5 Copying: Transcribing, entering, or posting data.
- 6 Comparing: Judging the readily observable functional, structural, or compositional characteristics (whether similar to or divergent from obvious standards) of data, people, or things.

PEOPLE: Human beings; also animals dealt with on an individual basis as if they were human.

- 0 Mentoring: Dealing with individuals in terms of their total personality in order to advise, counsel, and/or guide them with regard to problems that may be resolved by legal, scientific, clinical, spiritual, and/or other professional principles.
- 1 Negotiating: Exchanging ideas, information, and opinions with others to formulate policies and programs and/or arrive jointly at decisions, conclusions, or solutions.
- 2 Instructing: Teaching subject matter to others, or training others (including animals) through explanation, demonstration, and supervised practice; or making recommendations on the basis of technical disciplines.
- 3 Supervising: Determining or interpreting work procedures for a group of workers, assigning specific duties to them, maintaining harmonious relations among them, and promoting efficiency. A variety of responsibilities is involved in this function.
- 4 Diverting: Amusing others, usually through the medium of stage, screen, television, or radio.
- 5 Persuading: Influencing others in favor of a product, service, or point of view.
- 6 Speaking-Signaling: Talking with and/or signaling people to convey or exchange information. Includes giving assignments and/or directions to helpers or assistants.
- 7 Serving: Attending to the needs or requests of people or animals or the expressed or implicit wishes of people. Immediate response is involved.
- 8 Taking Instructions-Helping: Attending to the work assignment instructions or orders of supervisor. (No immediate response required unless clarification of instructions or orders is needed.) Helping applies to "non-learning" helpers.

THINGS: Inanimate objects as distinguished from human beings, substances or materials; and machines, tools, equipment, work aids, and products. A thing is tangible and has shape, form, and other physical characteristics.

- 0 Setting Up: Preparing machines (or equipment) for operation by planning order of successive machine operations, installing and adjusting tools and other machine components, adjusting the position of workpiece or material, setting controls, and verifying accuracy of machine capabilities, properties of materials, and shop practices. Uses tools, equipment, and work aids, such as precision gauges and measuring instruments. Workers who set up one or a number of machines for other workers or who set up and personally operate a variety of machines are included here.
- 1 Precision Working: Using body members and/or tools or work aids to work, move, guide, or place objects or materials in situations where ultimate responsibility for the attainment of standards occurs and selection of appropriate tools, objects, or materials, and the adjustment of the tool to the task require exercise of considerable judgment.
- 2 Operating-Controlling: Starting, stopping, controlling, and adjusting the progress of machines or equipment. Operating machines involves setting up and adjusting the machine or material(s) as the work progresses. Controlling involves observing gauges, dials, etc., and turning valves and other devices to regulate factors such as temperature, pressure, flow of liquids, speed of pumps, and reactions of materials.
- 3 Driving-Operating: Starting, stopping, and controlling the actions of machines or equipment for which a course must be steered or which must be guided to control the movement of things or people for a variety of purposes, involves such activities as observing gauges and dials, estimating distances and determining speed and direction of other objects, turning cranks and wheels, and pushing or pulling gear lifts or levers. Includes such machines as cranes, conveyor

systems, tractors, furnace-charging machines, paving machines, and hoisting machines. Excludes manually powered machines, such as handtrucks and dollies, and power-assisted machines, such as electric wheelbarrows and handtrucks.

- 4 Manipulating: Using body members, tools, or special devices to work, move, guide, or place objects or materials. Involves some latitude for judgment with regard to precision attained and selecting appropriate tool, object, or material, although this is readily manifest.
- 5 Tending: Starting, stopping, and observing the functioning of machines and equipment. Involves adjusting materials or controls of the machine, such as changing guides, adjusting timers and temperature gauges, turning valves to allow flow of materials, and flipping switches in response to lights. Little judgment is involved in making these adjustments.
- 6 Feeding-Offbearing: Inserting, throwing, dumping, or placing materials in or removing them from machines or equipment which are automatic or tended or operated by other workers.
- 7 Handling: Using body members, handtools, and/or special devices to work, move, or carry objects or materials. Involves little or no latitude for judgment with regard to attainment of standards or in selecting appropriate tool, object, or materials.

GENERAL EDUCATIONAL DEVELOPMENT

General Educational Development embraces those aspects of education (formal and informal) which are required of the worker for satisfactory job performance. This is education of a general nature which does not have a recognized, fairly specific occupational objective. Ordinarily, such education is obtained in elementary school, high school, or college. However, it may be obtained from experience and self-study.

The General Educational Development scale is composed of three divisions: Reasoning Development, Mathematical Development, and Language Development. The description of the various levels of language and mathematical development are based on the curricula taught in schools throughout the United States. An analysis of mathematics courses in school curricula reveals distinct levels of progression in the primary and secondary grades and in college. These levels of progression facilitated the selection and assignment of six levels of GED for the mathematical development scale.

Language courses follow a similar pattern of progression in primary and secondary school, particularly in learning and applying the principles of grammar, this pattern changes at the college level. The diversity of language courses offered at the college level precludes the establishment of distinct levels of language progression for these four years. Consequently, language development is limited to five defined levels of GED in as much as levels 5 and 6 share a common definition, even though they are distinct levels.

Reasoning Development

LEVEL 6 - Apply principles of logical or scientific thinking to a wide range of intellectual and practical problems. Deal with nonverbal symbolism (formulas, scientific equations, graphs, musical notes, etc.) in its most difficult phases. Deal with a variety of abstract and concrete variables. Apprehend the most abstruse classes of concepts.

LEVEL 5 - Apply principles of logical or scientific thinking to define problems, collect data, establish facts, and draw valid conclusions. Interpret an extensive variety of technical instructions in mathematical or diagrammatic form. Deal with several abstract and concrete variables.

LEVEL 4 -

- * Examples of rational systems are: bookkeeping, internal combustion engines, electric wiring systems, house building, farm management, and navigation.

LEVEL 3 - Apply commonsense understanding to carry out instructions furnished in written, oral, or diagrammatic form. Deal with problems involving several concrete variables in or from standardized situations.

LEVEL 2 - Apply commonsense understanding to carry out detailed but uninvolved written or oral instructions. Deal with problems involving a few concrete variables in or from standardized situations.

LEVEL 1 - Apply commonsense understanding to carry out simple one- or two-step instructions. Deal with standardized situations with occasional or no variables in or from these situations encountered on the job.

Mathematical Development

LEVEL 6 - Advanced calculus: Work with limits, continuity, real number systems, mean value theorems, and implicit function theorems.

Modern Algebra: Apply fundamental concepts of theories of groups, rings, and fields. Work with differential equations, linear algebra, infinite series, advanced operations methods, and functions of real and complex variables.

Statistics: Work with mathematical statistics, mathematical probability and applications, experimental design, statistical inference, and econometrics.

LEVEL 5 - Algebra: Work with exponents and logarithms, linear equations, quadratic equations, mathematical induction and binomial theorem, and permutations.

Calculus: Apply concepts of analytic geometry, differentiations, and integration of algebraic functions with applications.

Statistics: Apply mathematical operations to frequency distributions, reliability and validity of tests, normal curve, analysis of variance, correlation techniques, chi-square application and sampling theory, and factor analysis.

LEVEL 4 - Algebra: Deal with system of real numbers; linear, quadratic, rational, exponential, logarithmic, angle and circular functions, and inverse functions; related algebraic solution of equations and inequalities; limits and continuity; and probability and statistical inference.

Geometry: Deductive axiomatic geometry, plane and solid, and rectangular coordinates.

Shop Math: Practical application of fractions, percentages, ratio and proportion, measurement, logarithms, practical algebra, geometric construction, and essentials of trigonometry.

LEVEL 3 - Compute discount, interest, profit, and loss; commission, markup, and selling price; ratio and proportion; and percentage. Calculate surfaces, volumes, weights, and measures. Algebra: Calculate variables and formulas; monomials and polynomials; ratio and proportion variables; and square roots and radicals.

Geometry: Calculate plane and solid figures, circumference, area, and volume. Understand kinds of angles and properties of pairs of angles.

LEVEL 2 - Add, subtract, multiply, and divide all units of measure. Perform the four operations with like common and decimal fractions. Compute ratio, rate, and percent. Draw and interpret bar graphs. Perform arithmetic operations involving all American monetary units.

LEVEL 1 - Add and subtract two-digit numbers. Multiply and divide 10's and 100's by 2, 3, 4, 5. Perform the four basic arithmetic operations with coins as part of a dollar. Perform operations with units such as cup, pint, and quart; inch, foot, and yard; and ounce and pound.

Language Development

LEVEL 6 - (Same as Level 5.)

LEVEL 5 - Reading: Read literature, book and play reviews, scientific and technical journals, abstracts, financial reports, and legal documents.

Writing: Write novels, plays, editorials, journals, speeches, manuals, critiques, poetry, and songs.

Speaking: Conversant in the theory, principles, and methods of effective and persuasive speaking, voice and diction, phonetics, and discussion and debate.

LEVEL 4 - Reading: Read novels, poems, newspapers, periodicals, journals, manuals, dictionaries, thesauruses, and encyclopedias.

Writing: Prepare business letters, expositions, summaries, and reports, using prescribed format and conforming to all rules of punctuation, grammar, diction, and style.

Speaking: Participate in panel discussions, dramatizations, and debates. Speak extemporaneously on a variety of subjects.

LEVEL 3 - Reading: Read a variety of novels, magazines, atlases, and encyclopedias. Read safety rules, instructions in the use and maintenance of shop tools and equipment, and methods and procedures in mechanical drawing and layout work.

Writing: Write reports and essays with proper format, punctuation, spelling, and grammar, using all parts of speech.

Speaking: Speak before an audience with poise, voice control, and confidence, using correct English and well-modulated voice.

LEVEL 2 - Reading: Passive vocabulary of 5,000-6,000 words. Read at rate of 190-215 words per minute. Read adventure stories and comic books, looking up unfamiliar words in dictionary for meaning, spelling, and pronunciation. Read instructions for assembling model cars and airplanes.

Writing: Write compound and complex sentences, using cursive style, proper end punctuation, and employing adjectives and adverbs.

Speaking: Speak clearly and distinctly with appropriate pauses and emphasis, correct punctuation, variations in word order, using present, perfect, and future tenses.

LEVEL 1 - Reading: Recognize meaning of 2,500 (two- or three- syllable) words. Read at rate of 95-120 words per minute. Compare similarities and differences between words and between series of numbers.

Writing: Print simple sentences containing subject, verb, and object, and series of numbers, names, and addresses.

Speaking: Speak simple sentences, using normal word order, and present and past tenses.

SPECIFIC VOCATIONAL PREPARATION

Specific Vocational Preparation is defined as the amount of lapsed time required by a typical worker to learn the techniques, acquire the information, and develop the facility needed for average performance in a specific job-worker situation. Lapsed time is not the same as work time. For example, 30 days is approximately 1 month of lapsed time and not six 5-day work weeks; and 3 months refers to 3 calendar months and not 90 work days.

This training may be acquired in a school, work, military, institutional, or vocational environment. It does not include the orientation time required of a fully qualified worker to become accustomed to the special conditions of any new job. Nor does it include that amount of time that a worker spends to learn the reasoning, language, and math skills which are often learned in school and which are also necessary for a person to be able to function in society.

Specific vocational training includes:

- a. Vocational education (high school; commercial or shop training; technical school; art school; and that part of college training which is organized around a specific vocational objective);
- b. Apprenticeship training (for apprenticeable jobs only);
- c. In-plant training (organized classroom study provided by an employer);
- d. On-the-job training (serving as learner or trainee on the job under the instruction of a qualified worker);
- e. Essential experience in other jobs (serving in less responsible jobs which lead to the higher grade job or serving in other jobs which qualify).

The following is an explanation of the various levels of Specific Vocational Preparation used in the Dictionary of Occupational Titles and reproduced in the Workbook:

Level Time

- 1 Short demonstration only
- 2 Anything beyond short demonstration up to and including 1 month
- 3 Over 1 month up to and including 3 months
- 4 Over 3 months up to and including 6 months
- 5 Over 6 months up to and including 1 year
- 6 Over 1 year up to and including 2 years
- 7 Over 2 years up to and including 4 years
- 8 Over 4 years up to and including 10 years
- 9 Over 10 years

Note: The levels of this scale are mutually exclusive and do not overlap.

TEMPERAMENTS

Temperaments are the adaptability requirements made on the worker by specific types of jobs. The Temperaments entry on the Job Listings will include one or more of the following 11 factors:

- D - DIRECTING, controlling, or planning activities of others.
- R - Performing REPETITIVE or short-cycle work.
- I - INFLUENCING people in their opinions, attitudes, and judgments
- V - Performing a VARIETY of duties.

- E - EXPRESSING personal feelings.
- A - Working ALONE or apart in physical isolation from others.
- S - Performing effectively under STRESS.
- T - Attaining precise set limits, TOLERANCES, and standards.
- U - Working UNDER specific instructions.
- P - Dealing with PEOPLE.
- J - Making JUDGMENTS and decisions.

The category of Temperaments is included in job analysis because different job situations call for different personality traits on the part of the worker. Experience in placing individuals in jobs indicates that the degree to which the worker can adapt to work situations is often a determining factor for success in that job. A person's dissatisfaction or failure to perform adequately can sometimes be attributed to an inability to adapt to a work situation rather than to an inability to learn and carry out job duties.

Definitions of Temperaments

Each of the 11 Temperament factors are defined below and, where available, is accompanied by examples of specific Job Titles to which the factor has been assigned. This will help you gain a better understanding of the use of these factors in job analysis and how they relate to job positions typically found in precision turned parts companies.

DIRECTING, Controlling or Planning Activities of Others: Involves accepting responsibility for formulating plans, designs, practices, policies, methods, regulations, and procedures for operations or projects; negotiating with individuals or groups for agreement or contracts; and supervising subordinate workers to implement plans and control activities. (EXAMPLES: Quality Control Manager, Controller)

Performing *REPETITIVE* or Short-Cycles Work: Involves performing a few routine and uninvolved tasks over and over again according to set procedures, sequence, or pace with little opportunity for diversion or interruption. Interaction with people is included when it is routine, continual, or prescribed. (EXAMPLES: General Laborer, Drill Press Operator)

INFLUENCING People in their Opinions, Attitudes, and Judgments: Involves writing, demonstrating, or speaking to persuade and motivate people to change their attitudes or opinions, participate in a particular activity, or purchase a specific commodity or service. (EXAMPLES: Sales Representative, Purchasing Agent)

Performing a *VARIETY* of Duties: Involves frequent changes of tasks involving different aptitudes, technologies, techniques, procedures, working conditions, physical demands, or degrees of attentiveness without loss of efficiency or composure. The involvement of the worker in two or more work fields may be a clue that this temperament is required. (EXAMPLES: Janitor, Machine Setter, Secretary)

EXPRESSING Personal Feelings: Involves creativity and self expression in interpreting feelings, ideas, or facts in terms of a personal viewpoint; treating a subject imaginatively rather than literally; reflecting original ideas or feelings in writing, painting, composing, sculpting, decorating, or inventing; or interpreting works of others by arranging, conducting, playing musical instruments, choreography, acting, directing, critiquing, or editorializing. (EXAMPLES: none)

Working *ALONE* or Apart in Physical Isolation from Others: Involves working in an environment that regularly precludes face-to-face interpersonal relationships for extended periods of time due to physical barriers or distances involved. (EXAMPLES: none)

Performing Effectively Under *STRESS*: Involves coping with circumstances dangerous to the worker or others. (EXAMPLES: none)

Attaining Precise Set Limits, *TOLERANCES*, and Standards: Involves adhering to and achieving exact levels of performance, using precision measuring instruments, tools, and machines to attain precise dimensions; preparing exact verbal and numerical records; and complying with precise instruments and specifications for materials, methods, procedures, and techniques to attain specified standards. (EXAMPLES: Comparator Operator, Bookkeeper)

Working *UNDER* Specific Instructions: Performing tasks only under specific instructions, allowing little or no room for independent action or judgement in working out job problems. (EXAMPLES: Lathe Tender)

Dealing with *PEOPLE*: Involves interpersonal relationships in job situations beyond receiving work instructions. (EXAMPLES: Sales Representative, Secretary, Expediter)

Making *JUDGMENTS* and Decisions: Involves solving problems, making evaluations, or reaching conclusions based on subjective or objective criteria, such as the five senses, knowledge, past experiences, or quantifiable or factual data. (EXAMPLES: Sales Representative, Comparator Operator, Screw Machine Setup/Operator)

APTITUDES

Aptitudes are the capacities or specific abilities which an individual must have in order to learn to perform a given work activity. Eleven separate Aptitudes are measured by the Department of Labor and included for each Job Listing. They are:

General Learning Ability	Motor Coordination
Verbal Aptitude	Finger Dexterity
Numerical Aptitude	Manual Dexterity
Spatial Aptitude	Eye-Hand-Foot Coordination
Form Perception	Color Discrimination
Clerical Perception	

The first nine Aptitudes are measured by the U.S. Employment service's General Aptitude Test Battery (GATB), a series of validated tests which your local Employment Services Bureau will administer without charge to individuals applying for work at your company. The last two Aptitudes, Eye-Hand-Foot Coordination and Color Discrimination, have been added by the Department of Labor, and included in the Workbook, because they are considered to be occupationally significant. Measurements for these two Aptitudes have not been developed for the GATB.

Each of the eleven Aptitudes shown on the individual Job Listing is rated on a scale of 1 to 5. These Aptitude Levels are useful as analytical tools and are expressed in terms which reflect the amount of the aptitudes possessed by segments of the working population.

Aptitude Levels

Level 1 The top 10 percent of the population. This segment of the population possesses an extremely high degree of the aptitude.

Level 2 The highest third exclusive of the top 10 percent of the population. This segment of the population possesses an above average or high degree of the aptitude.

Level 3 The middle third of the population. This segment of the population possesses a medium degree of the aptitude ranging from slightly below to slightly above average.

Level 4 The lowest third exclusive of the bottom 10 percent of the population. This segment of the population possesses a below average or low degree of the aptitude.

Level 5 The lowest 10 percent of the population. This segment of the population possesses a negligible degree of the aptitude.

Definition of Aptitudes

GENERAL LEARNING ABILITY: The ability to "catch on" or understand instruction and underlying principles; the ability to reason and make judgments. Closely related to doing well in school.

VERBAL APTITUDE: The ability to understand the meaning of words and to use them effectively. Ability to comprehend language, to understand relationships between words, and to understand the meaning of whole sentences and paragraphs.

NUMERICAL APTITUDE: The ability to perform arithmetic operations quickly and accurately.

SPATIAL APTITUDE: The ability to think visually of geometric forms and to comprehend the two-dimensional representation of three-dimensional objects. The ability to recognize the relationships resulting from the movement of objects in space.

FORM PERCEPTION: The ability to perceive pertinent detail in objects or in pictorial or graphic material. Ability to make visual comparisons and discriminations and see slight differences in shapes and shadings of figures and widths and lengths of lines.

CLERICAL PERCEPTION: The ability to perceive pertinent detail in verbal or tabular material. Ability to observe differences in copy, to proofread words and numbers, and to avoid perceptual errors in arithmetic computation. A measure of speed of perception is required in many industrial jobs even when the job does not have verbal or numerical content.

MOTOR COORDINATION: The ability to coordinate eyes and hands or fingers rapidly and accurately in making precise movements with speed. Ability to make a movement response accurately and swiftly.

FINGER DEXTERITY: The ability to move the fingers and manipulate small objects with the fingers rapidly or accurately.

MANUAL DEXTERITY: The ability to move the hands easily and skillfully. Ability to work with the hands in placing and turning motions.

EYE-HAND-FOOT COORDINATION: The ability to move the hand and foot coordinately with each other in accordance with visual stimuli.

COLOR DISCRIMINATION: The ability to match or discriminate between colors in terms of hue, saturation, and brilliance. Ability to identify a particular color combination from memory and to perceive contrasting color combinations.

PHYSICAL DEMANDS & ENVIRONMENTAL CONDITIONS

General

Review and modification (where necessary) of the Physical Demands and Environmental Conditions ratings for each job in your company is another opportunity to refine the Job Listing information to more correctly reflect the circumstances and situations prevailing in your company.

The Industrial Relations Committee has thoroughly reviewed all Physical Demands and Environmental Conditions ratings for each Job Listing presented in this Workbook to make sure that, in general, the ratings apply to the average company in the Industry.

However, the physical demands made upon an employee holding that position in your company, as with the environmental conditions in which the job is being performed, may vary depending on your circumstances.

For example, under Environmental Conditions, there is a rating for Extreme Heat, defined as "Exposure to non-weather related hot temperatures." The normal classification given to jobs in the precision turned parts industry for Extreme Heat is "N" (Not Present). However, machine operators in shops which are not air conditioned may experience, during certain times of the year, periods when the temperature in the plant becomes uncomfortable due to heat generated by the machines. If that is the case, the rating for Extreme Heat could be adjusted by the individual company upward to "O" (Occasional).

Companies are urged to study carefully the descriptions of each Physical Demand and Environmental Condition and adjust the ratings given to reflect the unique situations existing in different precision turned parts companies.

Physical Demands

Physical Demands are used to describe the physical activities that a job requires. Ratings for Physical Demands are concerned only with the physical demands of the particular job and are not concerned with the physical capacity of the worker.

Physical Demands of a job are defined in terms of 20 factors:

Strength	Climbing	Balancing	Stooping
Kneeling	Crouching	Crawling	Reaching
Handling	Fingering	Feeling	Talking
Hearing	Tasting/Smelling	Near Acuity	Far Acuity
Depth Percep.	Accommodation	Color Vision	Field of Vision

Each factor, other than Strength which has its own rating system, is rated according to one of the following four frequency codes:

Code	Frequency	Definition
N	Not Present	Activity or condition does not exist.
O	Occasionally	Activity or condition exists up to 1/3 of the time.
F	Frequently	Activity or condition exists from 1/3 to 2/3 of the time.
C	Constantly	Activity or condition exists 2/3 or more of the time.

For purposes of the ADA, it is reasonable to state that Physical Demand factors of specific jobs which show either "F" or "C" (Frequently or Constantly) are ESSENTIAL elements, or demands, occurring in that job, since they exist, in general, more than half of the time. Physical Demand factors shown as "N" (Not Present) would not be considered essential to that position. Again for purposes of ADA compliance, Physical Demands which

show an "O" (Occasionally) may be considered essential for a specific job, depending on other considerations; i.e. the consequences of not requiring an employee to perform the action or operate in that condition.

Note that these frequency codes apply also to ENVIRONMENTAL CONDITIONS, which are explained in a following Section.

Strength Rating

The Physical Demands Strength Rating reflects the estimated overall strength requirement of the job, expressed by one of five terms: Sedentary, Light, Medium, Heavy, and Very Heavy. The Strength Rating represents the strength requirements which are considered to be important for average, successful work performance.

The Strength Rating evaluates the worker's involvement in the following activities:

Standing - Remaining on one's feet in an upright position at a work station without moving about.

Walking - Moving about on foot.

Sitting - Remaining in a seated position.

Lifting - Raising or lowering an object from one level to another (includes upward pulling).

Carrying - Transporting an object, usually holding it in the hands or arms, or on the shoulder.

Pushing - Exerting force upon an object so that the object moves away from the force (includes slapping, striking, kicking, and treadle actions).

Pulling - Exerting force upon an object so that the object moves toward the force (includes jerking).

Lifting, pushing, and pulling are evaluated in terms of both intensity and duration. Consideration is given to the weight handled, position of the worker's body, and the aid given by helpers or mechanical equipment. Carrying most often is evaluated in terms of duration, weight carried, and distance carried.

Worker involvement with Controls are also evaluated in determining the Strength Rating for specific jobs. Controls entail the use of one or both arms or hands and/or one or both feet or legs to move controls on machinery or equipment. Controls include but are not limited to buttons, knobs, pedals, levers, and cranks.

Following are descriptions of the five terms in which the Strength Factor is expressed:

S - Sedentary Work - Exerting up to 10 pounds of force occasionally (Occasionally: activity or condition exists up to 1/3 of the time) and/or a negligible amount of force frequently (Frequently: activity or condition exists from 1/3 to 2/3 of the time) to lift, carry, push, pull, or otherwise move objects, including the human body. Sedentary work involves sitting most of the time, but may involve walking or standing for brief periods of time. Jobs are sedentary if walking and standing are required only occasionally and all other sedentary criteria are met.

L - Light Work - Exerting up to 20 pounds of force occasionally, and/or up to 10 pounds of force frequently, and/or a negligible amount of force constantly (Constantly: activity or condition exists 2/3 or more of the time) to move objects. Physical demand requirements are in excess of those for Sedentary Work. Even though the weight lifted may be only a negligible amount, a job should be rated Light Work: (1) when it requires walking or standing to a significant degree; or (2) when it requires sitting most of the time but entails pushing and/or pulling of arm or leg controls; and/or (3) when the job requires working at a production rate pace entailing the constant pushing and/or pulling of materials even though the weight of those materials is negligible. **NOTE:**

The constant stress and strain of maintaining a production rate pace, especially in an industrial setting, can be and is physically demanding of a worker even though the amount of force exerted is negligible.

M - Medium Work - Exerting 20 to 50 pounds of force occasionally, and/or 10 to 25 pounds of force frequently, and/or greater than negligible up to 10 pounds of force constantly to move objects. Physical Demand requirements are in excess of those for Light Work.

H - Heavy Work - Exerting 50 to 100 pounds of force occasionally, and/or 25 to 50 pounds of force frequently, and/or 10 to 20 pounds of force constantly to move objects. Physical Demand requirements are in excess of those for Medium Work.

V - Very Heavy Work - Exerting in excess of 100 pounds of force occasionally, and/or in excess of 50 pounds of force frequently, and/or in excess of 20 pounds of force constantly to move objects. Physical Demand requirements are in excess of those for Heavy Work.

Definition of Other Physical Demand Factors

CLIMBING - Ascending or descending ladders, stairs, scaffolding, ramps, poles, and the like, using feet and legs or hands and arms. Body agility is emphasized.

BALANCING - Maintaining body equilibrium to prevent falling when walking, standing, crouching, or running on narrow, slippery, or erratically moving surfaces.

STOOPING - Bending body downward and forward by bending spine at the waist, requiring full use of the lower extremities and back muscles.

KNEELING - Bending legs at knees to come to rest on knee or knees.

CROUCHING - Bending body downward and forward by bending legs and spine.

CRAWLING - Moving about on hands and knees or hands and feet.

REACHING - Extending hand(s) and arm(s) in any direction.

HANDLING - Seizing, holding, grasping, turning, or otherwise working with hand or hands. Fingers are involved only to the extent that they are an extension of the hand, such as to turn a switch or shift automobile gears.

FINGERING - Picking, pinching, or otherwise working primarily with fingers rather than with the whole hand or arm as in handling.

FEELING - Perceiving attributes of objects, such as size, shape, temperature, or texture, by touching with skin, particularly that of fingertips.

TALKING - Expressing or exchanging ideas by means of spoken word to impart oral information and to convey detailed spoken instructions to other workers accurately, loudly, or quickly.

HEARING - Perceiving the nature of sounds by ear.

TASTING/SMELLING - Distinguishing, with a degree of accuracy, differences or similarities in intensity or quality of flavors or odors, or recognizing particular flavors or odors, using tongue or nose.

NEAR ACUITY - Clarity of vision at 20 inches or less.

FAR ACUITY - Clarity of vision at 20 feet or more.

DEPTH PERCEPTION - Three-dimensional vision. Ability to judge distances and spatial relationships so as to see objects where and as they actually are.

ACCOMMODATION - Adjustment of lens of eye to bring an object into sharp focus. This factor is required when doing near point work at varying distances from the eye.

COLOR VISION - Ability to identify and distinguish colors.

FIELD OF VISION - Observing an area that can be seen up and down or to right or left while eyes are fixed on a given point.

Environmental Conditions

There are 14 factors used in the DOT to describe the physical surroundings in which a job is performed. The frequency codes used for each Environmental Condition factor, except Noise, are the same as those used to indicate the presence or absence of a Physical Demand: "N" - Not Present; "O" - Occasionally; "F" - Frequently; "C" - Constantly. The code for Noise is based on a scale of 1 to 5, and is explained below.

As with Physical Demands, it is reasonable to state that Environmental Condition factors of specific jobs which show either "F" or "C" (Frequently or Constantly) are ESSENTIAL elements, or conditions, encountered in that job, since they are present, in general, more than half of the time. Environmental Condition factors shown as "N" (Not Present) would not be considered essential to that position.

For purposes of ADA compliance, Environmental Conditions which show an "O" (Occasionally) may be considered essential to a specific job, depending on other considerations; i.e. the consequences of not requiring an employee to operate within that condition.

The 14 Environmental Conditions and their definitions, are:

EXPOSURE TO WEATHER - Exposure to outside atmospheric conditions.

EXTREME COLD - Exposure to nonweather-related cold temperatures.

EXTREME HEAT - Exposure to nonweather-related hot temperatures.

WET AND/OR HUMID - Contact with water or other liquids or exposure to nonweather-related humid conditions.

NOISE INTENSITY LEVEL - This factor is expressed by one of five numerical code levels:

Code	Level	Examples
1	Very Quiet	Isolation booth for hearing test; deep sea diving; forest trail
2	Quiet	Library; many private offices; funeral reception, golf course; art museum

3	Moderate	Business office where typewriters are used; department store; grocery store; light traffic; fast food restaurant at off-hours
4	Loud	Can manufacturing department; large earth-moving equipment; heavy traffic
5	Very Loud	Rock concert - front row; jackhammer work; rocket engine testing area during test

VIBRATION - Exposure to a shaking object or surface.

ATMOSPHERIC CONDITIONS - Exposure to conditions such as fumes, noxious odors, mists, gases, and poor ventilation, that affect the respiratory system, eyes, or the skin.

PROXIMITY TO MOVING MECHANICAL PARTS - Exposure to possible bodily injury from moving mechanical parts of equipment, tools, or machinery.

EXPOSURE TO ELECTRICAL SHOCK - Exposure to possible bodily injury from electrical shock.

WORKING IN HIGH, EXPOSED PLACES - Exposure to possible bodily injury from falling.

EXPOSURE TO RADIATION - Exposure to possible bodily injury from radiation.

WORKING WITH EXPLOSIVES - Exposure to possible injury from explosions.

EXPOSURE TO OILS AND SOLVENTS - Exposure to possible injury from contact with oils, coolants and solvents.

OTHER ENVIRONMENTAL FACTORS - Exposure to other environmental factors not covered above.

JOB DESCRIPTION DEVELOPMENT NOTES

Each job description consists of two pages. One page is a signature page for new employees entering the department. The file copy is similar to the employee signature page except this page includes all of the detailed ratings for each of the components of the job function and is used to determine the essential job functions.

- .. Copy a job description from the PMPA Workbook to a separate file. (The job descriptions are located in the **JOBLISTS.WPF** file.)
- .. Compare the written job description to the actual job functions, add to or delete listed functions. (Refer to the PMPA Workbook for explanations of each rated component.) **IMPORTANT:** Do not make changes unless they are absolutely necessary. Changes may have a negative impact on the integrity of the job description.

On the back of each page is the Essential Job Functions list. Compare each of the essential job functions to the job function categories listed on the file copy. Using knowledge of the actual job function and the component ratings determine which job functions are essential. Check mark essential job functions.

NOTE 1: A macro has been defined to remove the lines in front of each essential job function and place a check mark in it's place. Place the cursor on the beginning of the line and press (**ALT-C**)

To define a check mark macro: (CTRL-F10) Macro Define; (Alt-C); (DEL); (DEL); (SPACE BAR); CTRL-V); 5,23 (ENTER); CTRL-F10)

APTITUDES:

General Learning	Verbal	Numerical
Spacial	Form Perception	Clerical Perception
Motor Coordination	Finger Dexterity	Manual Dexterity
Eye-Hand Coordination	Color Discrimination	

PHYSICAL DEMANDS:

Strength	Climbing	Balancing	Stooping
Kneeling	Crouching	Crawling	Reaching
Handling	Fingering	Feeling	Talking
Hearing	Taste/Smell	Near Acuity	Far Acuity
Depth Percep.	Accommodation	Color Vision	Field of Vision

ENVIRONMENTAL CONDITIONS:

Weather	Cold	Hot	Wet/Humid
Noise	Vibration	Atmos. Cond.	Mov Mech Parts
Electric shock	High Exp. Places	Radiation	Explosives
Oils/Solvents	Other Env Cond		



... delivering the highest quality product in the least amount of time

MATERIAL HANDLING TECHNICIAN

RESPONSIBILITIES

The Material Handling Technician performs various production support functions such as, operating powered industrial trucks, and over-head cranes, distillation unit, chip and oil systems, and transfers finished goods to shipping/receiving areas. The Material Handling Technician reports directly to the Shipping/Receiving Supervisor and is directed in their job duties from time to time.

RESPONSIBILITIES INCLUDE:

- ❖ Loads, unloads, and moves materials within or near plant, yard, or work site, performing any combination of following duties: Reads work order or follows oral instructions to ascertain materials or containers to be moved.
- ❖ Perform repetitive or short cycle work, under specific instructions attaining precise set limits, tolerances, and standards.
- ❖ Opens containers, using steel cutters, crowbar, claw hammer, or other hand tools.
- ❖ Loads and unloads materials onto or from pallets, trays, racks, and shelves by hand.
- ❖ Loads materials into vehicles and installs strapping, bracing, or padding to prevent shifting or damage in transit, using hand tools.
- ❖ Conveys materials to or from storage or work sites to designated area, using hand truck, electric dolly, wheelbarrow, or other device.
- ❖ Secures lifting attachments to materials and conveys load to destination, using hand operated crane or hoist.
- ❖ Attaches identifying tags or labels to materials or marks in formation on cases, bales, or other containers.
- ❖ Loads trucks, and stacks or assembles materials into bundles and bands bundles together, using banding machine and clincher.
- ❖ Lifts heavy objects by hand or using power hoist, and cleans work area, machines, and equipment, using broom, rags, and cleaning compounds, to assist machine operators.
- ❖ Makes simple adjustments or repairs, such as realigning belts or replacing rollers, using hand tools.
- ❖ Shovels loose materials into machine hoppers or into vehicles and containers, such as wheelbarrows, scrap truck, or barrels.
- ❖ Tends machines, such as centrifugal separator and oil purifier to separate turnings and cutting oil:
- ❖ Loads and moves barrels or crates of metal chips, shavings, or bar ends from machining operations, using hand truck.
- ❖ Shovels scrap in spinner bucket, clamps covers, sets timer, adjusts sump pump and oil line valves, and flips switches to start automatic cycle of centrifugal machine that spins metal scrap to separate cutting oil from scrap.
- ❖ Sorts scrap according to type of metal. May weigh barrels of scrap metal and tie identification tags on scrap.
- ❖ Sets up and operates metal-sawing machines, such as hacksaw, band saw, circular saw, friction saw, and rubber-disk saw to cut metal stock to dimensions:

MATERIAL HANDLING TECHNICIAN (cont.)

RESPONSIBILITIES (cont.)

- ❖ Counts, weighs and records number of units of materials moved or handled on daily production sheet.
- ❖ Starts centrifugal oil purifier that filters foreign matter from used cutting oil to make oil reusable.
- ❖ Drives gasoline-, liquefied gas-, or electric-powered industrial truck equipped with lifting devices, such as forklift, boom, scoop, lift beam and swivel-hook, fork-grapple, clamps, elevating platform, or trailer hitch, to push, pull, lift, stack, tier, or move products, equipment, or materials in warehouse, storage yard, or factory.
- ❖ Controls batch stills or continuous stills and auxiliary equipment from instrumented control board or other control station to separate and condense liquids having close volatilization points maintaining process control according to instrument readings, test results, and knowledge or equipment and procedures.
- ❖ Operates traveling or stationary overhead crane to lift, move, and position loads, such as machinery, equipment, products, and solid or bulk materials, using hoisting attachments, such as hook, sling, electromagnet, or bucket.

MATERIAL HANDLING TECHNICIAN

SPECIFIC SKILLS:

The Material Handling Technician must possess strong communication and organizational skills, applying knowledge of materials, inventory levels, equipment, safety procedures, and production schedules.

SPECIFIC SKILLS INCLUDE:

- ❖ Must be able to operate a personal computer and related software.
- ❖ Transcribe, enter, or post data.
- ❖ Judge the readily observable functional, structural, or compositional characteristics of data, people, and things.
- ❖ Talking with or signaling people to convey or exchange information, including giving assignments and/or directions to helpers. Attending to the work assignment instructions or orders of Supervisor.
- ❖ Starting, stopping, controlling, and adjusting the progress of machines or equipment. Operating machines involves setting up and adjusting the machine or material(s) as the work progresses. Controlling involves observing gauges, dials, etc., and turning valves and other devices to regulate factors such as temperature, pressure, flow of liquids, speed of pumps, and reactions of materials.
- ❖ Apply commonsense understanding to carry out detailed instructions furnished in written, oral, or diagrammatic form. Deal with problems involving several concrete variables in or from standardized situations.
- ❖ Add, subtract, multiply, and divide all units of measure. Perform the four operations with like common and decimal fractions. Compute ratio, rate, and percent. Draw and interpret bar graphs. Perform arithmetic operations involving all American monetary units.
- ❖ Must be able to write compound sentences with proper format, punctuation, spelling, and grammar, using all parts of speech.
- ❖ Performing REPETITIVE or Short-Cycles Work: Involves performing a few routine and uninvolved tasks over and over again according to set procedures, sequence, or pace with little opportunity for diversion or interruption. Interaction with people is included when it is routine, continual, or prescribed.
- ❖ Adhere to and achieve exact levels of performance, using precision measuring instruments, tools, and machines to attain precise dimensions; preparing exact verbal and numerical records; and complying with precise instruments and specifications for materials, methods, procedures, and techniques to attain specified standards.



FLSA STATUS:

The determination based on the job responsibilities associated with this position reflects a "non-exempt" FLSA status. The Material Handling Technician's work is routine and set with standards and rules; the position does not fall under an Executive, Administrative, or Professional exemption.

BACKGROUND:

- ❖ Any combination of education and experience that demonstrates the required knowledge, skills and abilities to perform the job functions.
- ❖ Knowledge of safety systems, powered industrial trucks, overhead cranes, distillation equipment, and raw materials.
- ❖ Over 6-Months up to and including 1 year of experience is recommended.

MATERIAL HANDLER

Occupational Code: **929687030**

JOB DESCRIPTION:

Loads, unloads, and moves materials within or near plant, yard, or work site, performing any combination of following duties: Reads work order or follows oral instructions to ascertain materials or containers to be moved. Opens containers, using steel cutters, crowbar, clawhammer, or other handtools. Loads and unloads materials onto or from pallets, trays, racks, and shelves by hand. Loads materials into vehicles and installs strapping, bracing, or padding to prevent shifting or damage in transit, using handtools. Conveys materials to or from storage or work sites to designated area, using handtruck, electric dolly, wheelbarrow, or other device. Secures lifting attachments to materials and conveys load to destination, using hand-operated crane or hoist. Counts, weighs, and records number of units of materials moved or handled on daily production sheet. Attaches identifying tags or labels to materials or marks in formation on cases, bales, or other containers. Loads truck. Stacks or assembles materials into bundles and bands bundles together, using banding machine and clincher. May clamp sections of portable conveyor together or place conveyor sections on blocks or boxes to facilitate movement of materials or products. Lifts heavy objects by hand or using power hoist, and cleans work area, machines, and equipment, using broom, rags, and cleaning compounds, to assist machine operators. May make simple adjustments or repairs, such as realigning belts or replacing rollers, using handtools. May assemble crates to contain products. Shovels loose materials into machine hoppers or into vehicles and containers, such as wheelbarrows, scrap truck, or barrels. May occasionally operate industrial truck or electric hoist to assist in loading or moving materials and products.

WORKER FUNCTIONS: **Data: 6N People: 8N Things: 7S**

GENERAL EDUCATIONAL DEVELOPMENT: **Reasoning: 2 Mathematical: 1 Language: 1**

SPECIFIC VOCATIONAL PREPARATION: **3**

TEMPERAMENTS: **R**

APTITUDES:

General Learning	4	Verbal	4	Numerical	4	Spacial	4
Form Perception	4	Clerical Perception	4	Motor Coordination	4	Finger Dexterity	4
Manual Dexterity	4	Eye-Hand Coordination	4	Color Discrimination	4		

PHYSICAL DEMANDS:

Strength	H	Climbing	O	Balancing	O	Stooping	O
Kneeling	O	Crouching	O	Crawling	O	Reaching	F
Handling	F	Fingering	F	Feeling	N	Talking	O
Hearing	O	Taste/Smell	N	Near Acuity	F	Far Acuity	O
Depth Percep.	F	Accommodation	O	Color Vision	O	Field of Vision	O

ENVIRONMENTAL CONDITIONS:

Weather	F	Cold	O	Hot	O	Wet/Humid	O
Atmos. Cond.	O	Mov. Mech. Parts	O	Radiation	N	Explosives	N
Electric Shock	O	High, Exp. Places	N	Vibration	N	Noise	4
Oils/Solvents	O	Other Env. Cond.	O				

OVERHEAD CRANE OPERATOR

Alternate Title: Crane Operator

Department: Material Handling

Occupational Code: 921663010

JOB DESCRIPTION:

Operates traveling or stationary overhead crane (ground controlled) to lift, move, and position loads, such as solid or bulk materials, using hoisting attachments such as hooks and slings: Observes load hookup and determines safety of load. Manipulates or depresses crane controls, such as levers, and buttons, to regulate speed and direction of crane and hoist movement according to written, verbal, or signal instructions. Cleans and maintains crane and hoisting mechanism. Inspects crane for defective parts and notifies supervisor of defects or malfunctions. May attach load to hook or other crane accessory prior to operating crane.

WORKER FUNCTIONS: Data: 5N People: 6N Things: 3S

GENERAL EDUCATIONAL DEVELOPMENT: Reasoning: 3 Mathematical: 2 Language: 2

SPECIFIC VOCATIONAL PREPARATION: 5

TEMPERAMENTS: R,T

APTITUDES:

General Learning	3	Verbal	4	Numerical	4
Spacial	3	Form Perception	4	Clerical Perception	5
Motor Coordination	3	Finger Dexterity	4	Manual Dexterity	3
Eye-Hand Coordination	3	Color Discrimination	5		

PHYSICAL DEMANDS:

M Strength	O Climbing	O Balancing	O Stooping
O Kneeling	O Crouching	N Crawling	F Reaching
F Handling	O Fingering	N Feeling	O Talking
O Hearing	N Taste/Smell	O Near Acuity	F Far Acuity
C Depth Percep.	N Accommodation	O Color Vision	F Field of Vision

ENVIRONMENTAL CONDITIONS:

N Weather	O Cold	O Hot	O Wet/Humid
4 Noise	N Vibration	O Atmos. Cond.	O Mov. Mech. Parts
N Electric Shock	N High, Exp. Places	N Radiation	N Explosives
O Oils/Solvents	N Other Env. Cond.		

SCRAP HANDLER

Alternate Title: Chip Puller

Department: Material Handling

Occupational Code: 509685050

JOB DESCRIPTION:

Tends machines, such as centrifugal separators to separate turnings and cutting oil. Cleans screw machine bases: Loads and moves barrels, dumpers or tubs of metal chips, shavings, or bar ends from machining operations, using handtruck, fork truck and manually. Shovels scrap in spinner bucket. Clamps covers, adjusts line valves, and flips switches to start automatic cycle of centrifugal machine that spins metal scrap to separate cutting oil from scrap. Sorts scrap according to type of metal. Properly identifies drums by labeling drum with content description and material type.

WORKER FUNCTIONS: Data: 6N People: 8N Things: 3S

GENERAL EDUCATIONAL DEVELOPMENT: Reasoning: 3 Mathematical: 2 Language: 2

SPECIFIC VOCATIONAL PREPARATION: 3

TEMPERAMENTS: R

APTITUDES:

General Learning	3	Verbal	4	Numerical	4
Spacial	4	Form Perception	4	Clerical Perception	4
Motor Coordination	3	Finger Dexterity	4	Manual Dexterity	3
Eye-Hand Coordination	5	Color Discrimination	5		

PHYSICAL DEMANDS:

H Strength	N Climbing	F Balancing	O Stopping
O Kneeling	O Crouching	N Crawling	F Reaching
F Handling	O Fingering	N Feeling	O Talking
N Hearing	N Taste/Smell	N Near Acuity	N Far Acuity
N Depth Percep.	N Accommodation	O Color Vision	N Field of Vision

ENVIRONMENTAL CONDITIONS:

N Weather	N Cold	O Hot	N Wet/Humid
4 Noise	N Vibration	O Atmos. Cond.	F Mov. Mech. Parts
N Electric Shock	N High, Exp. Places	N Radiation	N Explosives
F Oils/Solvents	N Other Env. Cond.		

STILL OPERATOR, BATCH OR CONTINUOUS

Department: Material Handling

Occupational Code: 552362022

JOB DESCRIPTION:

Controls batch stills or continuous stills and auxiliary equipment from instrumented control board or other control station to separate and condense liquids having close volatilization points, maintaining process control according to instrument readings, test results, and knowledge of equipment and procedure: Reads charge sheet to determine types and quantities of materials to be distilled, specified sequence of operations, and control settings for attainment of prescribed fractionation. Starts pumps and turns valves to admit volatile liquids into still. Observes pressure and temperature gauges and moves controls to specified settings to attain volatilization rate consistent with efficient and safe operation, according to knowledge of process and equipment. Turns valves and starts pumps to route distilled fractions to receiving tanks. Records data computed from instrument readings and test results, such as distillation time, temperature settings, flow rates and yield.

WORKER FUNCTIONS: Data: 5N People: 6N Things: 2S

GENERAL EDUCATIONAL DEVELOPMENT: Reasoning: 3 Mathematical: 2 Language: 2

SPECIFIC VOCATIONAL PREPARATION: 3

TEMPERAMENTS: T, U

APTITUDES:

General Learning	3	Verbal	4	Numerical	4
Spacial	4	Form Perception	4	Clerical Perception	4
Motor Coordination	3	Finger Dexterity	4	Manual Dexterity	3
Eye-Hand Coordination	5	Color Discrimination	5		

PHYSICAL DEMANDS:

M Strength	O Climbing	O Balancing	O Stooping
O Kneeling	O Crouching	N Crawling	F Reaching
F Handling	O Fingering	N Feeling	O Talking
O Hearing	N Taste/Smell	F Near Acuity	N Far Acuity
O Depth Percep.	N Accommodation	O Color Vision	N Field of Vision

ENVIRONMENTAL CONDITIONS:

N Weather	N Cold	O Hot	N Wet/Humid
4 Noise	N Vibration	O Atmos. Cond.	O Mov. Mech. Parts
N Electric Shock	N High, Exp. Places	N Radiation	N Explosives
F Oils/Solvents	N Other Env. Cond.		

INDUSTRIAL TRUCK OPERATOR

Occupational Code: **921683050**

JOB DESCRIPTION:

Drives gasoline-, liquefied gas-, or electric-powered industrial truck equipped with lifting devices, such as forklift, boom, scoop, lift beam and swivel-hook, fork-grapple, clamps, elevating platform, or trailer hitch, to push, pull, lift, stack, tier, or move products, equipment, or materials in warehouse, storage yard, or factory: Moves levers and presses pedals to drive truck and control movement of lifting apparatus. Positions forks, lifting platform, or other lifting device under, over, or around loaded pallets, skids, boxes, products, or materials or hooks tow trucks to trailer hitch, and transports load to designated area. Unloads and stacks material by raising and lowering lifting device. May inventory materials on work floor, and supply workers with materials as needed. May weigh materials or products and record weight on tags, labels, or production schedules. May load or unload materials onto or off of pallets, skids, or lifting device. May lubricate truck, recharge batteries, fill fuel tank, or replace liquefied gas tank.

WORKER FUNCTIONS: **Data: 6N People: 8N Things: 3S**

GENERAL EDUCATIONAL DEVELOPMENT: **Reasoning: 2 Mathematical: 1 Language: 1**

SPECIFIC VOCATIONAL PREPARATION: **3**

TEMPERAMENTS: **R,T**

APTITUDES:

General Learning	4	Verbal	4	Numerical	4
Spacial	3	Form Perception	4	Clerical Perception	4
Motor Coordination	3	Finger Dexterity	4	Manual Dexterity	3
Eye-Hand Coordination	3	Color Discrimination	4		

PHYSICAL DEMANDS:

Strength	M	Climbing	O	Balancing	O	Stooping	O
Kneeling	N	Crouching	O	Crawling	N	Reaching	C
Handling	C	Fingering	F	Feeling	N	Talking	O
Hearing	O	Taste/Smell	N	Near Acuity	O	Far Acuity	F
Depth Percep.	F	Accommodation	O	Color Vision	O	Field of Vision	F

ENVIRONMENTAL CONDITIONS:

Weather	F	Cold	N	Hot	N	Wet/Humid	N
Noise	4	Vibration	N	Atmos. Cond.	O	Mov. Mech. Parts	O
Electric Shock	N	High, Exp. Places	N	Radiation	N	Explosives	N
Oils/Solvents	O	Other Env. Cond.	O				