PETE WILSON GOVERNOR OF CALIFORNIA

# SCHEDULE FOR RATING PERMANENT DISABILITIES

UNDER PROVISIONS OF THE

# LABOR CODE OF THE STATE OF CALIFORNIA

Compiled and Published by STATE OF CALIFORNIA

DEPARTMENT OF INDUSTRIAL RELATIONS DIVISION OF WORKERS' COMPENSATION

> CASEY L. YOUNG Administrative Director

> > April 1997

# AUTHORITY

Labor code Section 4660, as amended effective July 16, 1993, provides:

4660. (a) In determining the percentage of permanent disability, account shall be taken of the nature of the physical injury or disfigurement, the occupation of the injured employee, and his age at the time of such injury, consideration being given to the diminished ability of such injured employee to compete in an open labor market.

(b) The administrative director may prepare, adopt, and from time to time amend, a schedule for the determination of the percentage of permanent disabilities in accordance with this section. Such schedule shall be available for public inspection, and without formal introduction in evidence shall be prima facie evidence of the permanent disability to be attributed to each injury covered by the schedule.

(c) Any such schedule and any amendment thereto or revision thereof shall apply prospectively and shall apply to and govern only those permanent disabilities which result from compensable injuries received or occurring on and after the effective date of the adoption of such schedule, amendment or revision, as the fact may be.

(d) On or before January 1, 1995, the administrative director shall review and revise the schedule for the determination of the percentage of permanent disabilities. The revision shall include, but not be limited to, an updating of the standard disability ratings and occupations to reflect the current labor market. However, no change in standard disability ratings shall be adopted without the approval of the Commission of Health and Safety and Workers' Compensation. A proposed revision shall be submitted to the commission on or before July 1, 1994.

Pursuant to this authority, the Administrative Director has adopted this revised Schedule for Rating Permanent Disability effective for injuries on and after April 1, 1997.

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## **SECTION 1 - INTRODUCTION AND INSTRUCTIONS**

#### I. CONCEPTUAL FRAMEWORK

The purpose of the Schedule for Rating Permanent Disabilities (hereafter referred to as the Schedule) is to assist in the determination of equitable, predictable compensation to injured employees for the residual effects of industrial injury. To determine the proper compensation, Labor Code Section 4660 requires that "account shall be taken of the nature of the physical injury or disfigurement, the occupation of the injured employee, and his age at the time of such injury, consideration being given to the diminished ability of such injured employee to compete in an open labor market."

The administrative director of the Division of Workers' Compensation is authorized to adopt, and from time to time amend, a schedule for the determination of the percentage of permanent disabilities in accordance with the statutory requirements. The Schedule is prima facie evidence of the percentage of permanent disability to be attributed to each injury covered by the Schedule.

The residual effects of industrial injury are ascertained and described by physicians when the employee's condition becomes "permanent and stationary." A disability is considered permanent after the employee has reached maximum improvement or the employee's condition has been stationary for a reasonable period of time. Physicians provide information about the injured employee's permanent impairment and limitations, whether objectively measurable (e.g., amputation, loss of motion) or subjective (e.g., disabling pain). Physicians may also indicate work restrictions are warranted either because the employee cannot perform certain functions or should not perform functions in order to prevent further injury. The resultant medical findings and conclusions are then translated into a permanent disability rating based on procedures and benchmarks set forth in the Schedule.

A permanent disability rating is a numeric representation, expressed as a whole number percent, of the degree to which the permanent effects of the injury have diminished the capacity of the employee to compete for and maintain employment in an open labor market. Specific impairments and work limitations are assigned standard ratings in the Schedule. The range of scheduled impairments and work limitations creates a framework of benchmarks which encompass most disabling conditions. Procedures are defined for rating conditions which fall between or outside the scheduled benchmarks.

Consistent with the statutory mandate, the standard rating is adjusted to account for the occupation and age of the injured employee at the time of injury. The theory is that for any particular disabling condition, the effect on the individual's ability to compete for employment can be markedly influenced by both occupation and age. For example, a knee injury resulting in limitation to sedentary work would have much more serious ramifications on employability for a laborer than for a personnel department manager. The age adjustment assumes an older injured worker requires longer to adjust to a handicap and therefore is given a higher rating than a younger worker with the same impairment.

A rating can range from 0% to 100%. Zero percent signifies no reduction of ability to compete in an open labor market while 100% represents *legal* total disability. Total disability does not mean that the employee cannot work, but rather represents a level of disability at which an employee would not normally be expected to be able to successfully compete in an open labor market. Permanent partial disability is represented by ratings between 0% and 100%.

Each rating corresponds to a fixed number of weeks of compensation. Both the number of weeks and the rate at which compensation is paid are set by statute and are independent of the rating process.

## A. Indexes of Disability

Two distinct systems are used to describe a disabling condition - the objective/subjective index and the

work capacity index. Either or both indexes may be used to describe a particular condition, and each, when used, yields its own disability rating<sup>1</sup>. When both are used, the index producing the higher rating is used.

The objective/subjective index is a composite of objective and subjective factors. Objective factors are physical losses or losses in function that are directly measurable. Typical examples would be amputations or reduced range of motion of a joint. The Schedule provides standard ratings for many impairments, frequently at their most disabling extremes.

Subjective factors are those which are not directly observable or measurable, the most common being the disabling effects of pain. Pain is characterized in terms of body part affected, intensity, frequency, and activity giving rise to the pain. Typical examples are constant slight pain in the back or moderate pain in the elbow on heavy lifting.

Ratings for subjective factors are generally derived from standard ratings for the body part involved rather than being directly scheduled. The rating is derived from definitions for terms of intensity and frequency and from guidelines for applying the definitions. For example, a "moderate pain" in the elbow -- defined as being tolerable, but causing a

<sup>&</sup>lt;sup>1</sup> Orthopedic appliances, when prescribed, may be given consideration.

marked handicap in the precipitating activity<sup>2</sup> - generally rates 50% of the value for total immobility of the joint.

If either objective factors or subjective factors alone are present, each may individually form the basis for the rating yielded by the "objective/subjective" index. In most cases, when both objectives and subjectives are present, they are added together. However, in some situations, the value for subjective disability will be scaled down when warranted by the nature or magnitude of the overall disability.

The other index of disability, work capacity, provides a method of describing a disabling condition in terms of the proportionate loss of pre injury capacity to perform specific work functions or groups of functions. The work capacity index characterizes limitation in relative rather than absolute terms. That is, the disabling condition is described in terms of a percentage loss of pre-injury capacity for the specific individual. A typical example of work capacity limitation would be a "loss of approximately one-quarter of (the injured worker's) pre-injury capacity for lifting."

As with objective factors, a number of disabilities have been scheduled in terms of loss of specific work capacities. These have been incorporated into guidelines which provide benchmarks for evaluating loss of work capacity. Two different sets of work capacity guidelines have been devised to correspond with large functional systems of the body. The Spine and Torso Guidelines apply to injuries of the neck, back, pelvis, abdomen, heart, chest, and lungs. The Lower Extremity Guidelines apply to hip, leg and foot injuries.

# **B.** Components of Rating

When calculating the percentage of permanent disability using the Schedule it is necessary to determine a disability number and a standard rating. The standard rating is then modified to reflect the occupation and age of the injured worker at the time of injury.

# 1. Disability Number

The Schedule divides disabilities into 14 main categories, each category corresponding to a major body part or function. For example, all lower extremity disabilities are listed under category 14. This category incorporates all disabilities caused by the amputation or impaired function of the lower extremities.

Each of these general categories is further subdivided to identify more specific disabilities, with each subdivision identified by additional numbers to the right of the decimal. Going further with our example, any disability of the knee is assigned disability number 14.5. This category is

<sup>&</sup>lt;sup>2</sup> Title 8, California Code of Regulations, Section 9727

further refined to reflect specific disabilities of the knee. Immobility of one knee joint, for example, is assigned disability number 14.511.

By reference to Section 2 of the Schedule, an appropriate disability number may thus be found for virtually any industrial disability.

# 2. Standard Rating

Once the disability number has been identified, the next step is to determine a standard rating based on the medical findings and conclusions. The standard rating represents the degree of disability for a theoretical average worker, i.e., a worker with average occupational demands on all parts of the body and at the average age of 39. If the specific disability under consideration is found in Section 2 of the Schedule, one need only refer to the listed disability, noting the corresponding disability number and standard rating.

Frequently the precise disability will not be found. For example, rather than having a total loss of knee motion, the injured worker may only lose the first 20 degrees of flexion of the joint. It then becomes necessary to refer to the nearest scheduled disability (in this example, 14.511- immobility of one knee joint), and then refer to the referenced notes directing the user to appropriate tables to determine the method of calculating fractional loss. In the event the disability is not addressed specifically by the Schedule, it is necessary to determine the proper standard rating by comparison with the nearest scheduled disability, by analogy to a scheduled disability, or by comparison with the entire scheme of relative severity of disabilities. (See Rules for Non-Scheduled Disabilities on page 1-12.)

# 3. Occupational Grouping

The standard rating is then modified to take into account the requirements of the specific occupation that the worker was engaged in when injured. If the occupation requires more than average use of the injured part, the rating is modified upward; if the part is relatively less important to the occupation, the rating is decreased. In order to make this adjustment, the appropriate occupational group must be determined.

The Schedule divides the labor market into 44 numbered occupational groups. Each group is assigned a three-digit code called an occupational group number. The first digit of the code refers to the arduousness of the duties, ranking jobs from 1 to 5 in ascending order of physical arduousness; the second digit separates occupations into broad categories sharing common characteristics; the third digit differentiates between occupations within these groups. The occupation generally can be found in Section 3, listed under a scheduled or alternative job title. If the occupation cannot be found, an appropriate occupational group is determined by analogy to a scheduled occupation(s) based on a comparison of duties. [See Rules for Non-scheduled Occupations on page 1-12.]

## 4. Occupational Variant

Once the occupational group number is found, Section 4 of the Schedule is consulted. This section contains tables that cross reference disability numbers and occupational group numbers to produce an "occupational variant," which is expressed as a letter. These tables are designed so that variant "F" represents average demands for the particular disability being rated, with letters "E", "D" and "C" representing progressively lesser demands, and letters "G" through "J" reflecting progressively higher demands.

# 5. Adjusting for Occupation

After the occupational variant is found, the standard rating is modified for occupation by reference to tables found in Section 5 of the Schedule. Find the standard rating in the column entitled "Standard Rating Percent" and read across the table to the column with the letter reflecting the appropriate occupational variant.

# 6. Adjusting for Age

Finally, the rating is further adjusted to account for the worker's age on the date of injury. The rating increases with age on the basis that older injured employees require longer to adjust to a handicap and that older employees with a given impairment suffer a greater competitive disadvantage in the labor market.

Section 6 of the Schedule contains tables for determining the age adjustment. Find the occupation-adjusted rating in the column entitled "Rating" and read across the table to the column with the injured worker's age on the date of injury.

If directed by Section 2 to apply a fraction to the disability after adjustment, this is done after the age adjustment, rounding the result obtained to the nearest whole percent.

# 7. Rating Formula

The individual components of the rating - disability number, standard rating, occupational group number, occupational variant, occupationally adjusted standard, and age adjusted rating - are generally expressed in a standardized format known as a rating formula. For an example of a rating formula, see page 1-12.

# II. GUIDES FOR RATING

## A. Objective Factors of Disability

Most scheduled objective factors of disability are for total loss of motion or amputation at a joint. However, residuals from injuries are more often partial impairments. The rating should reflect the proportional amount of loss appropriate to the condition. This is achieved by taking a fractional portion of the age adjusted rating for complete loss.

To derive the appropriate fraction, comparative measurements of *active* motion of a joint are required. This is reported as injured measurement/uninjured measurement (e.g., flexion of injured right knee/uninjured left knee of 120°/140°). *Passive* motions may be used for joints of toes and for inversion and eversion of the foot.

# B. Subjective Factors of Disability

Subjective residuals of an injury may include pain, numbness, weakness, tenderness, paresthesia, and sensitivity. Although their very nature precludes direct measurement, these factors may produce a degree of handicap beyond that which can be directly measured (objective residuals) and may be given consideration in the rating process.

Pain is not always disabling. It becomes disabling when its degree affects function. Regulations define four degrees of subjective pain - minimal, slight, moderate and severe.<sup>3</sup> By definition, minimal (mild) pain is not disabling because it causes no handicap in the activity precipitating the pain. However, slight, moderate and severe pain reflect increasingly greater degrees of handicap on work activity, and are ratable factors of disability.

The percentage of disability assigned to subjective factors is determined by the location, degree and frequency of pain. In general, a constant slight pain in a major joint of an extremity (e.g., ankle, elbow) is 5%, and a constant moderate pain is approximately one half the value of immobility of the joint. Thus, a pain that can be tolerated but causes some handicap (slight) is given a nominal value, while a marked (moderate) degree of handicap is directly related to the value for complete loss of function of the involved joint.

When the frequency of pain is less than constant, the assigned value decreases proportionately. To calculate this value, the terms of frequency are taken to mean the following: CONSTANT, 90 100% of the time; FREQUENT, 75%; INTERMITTENT, 50%, and OCCASIONAL, 25%. Thus, an intermittent slight pain of the minor wrist would be 50 percent of the value of slight pain in the wrist, or one-half of 5%. Since all ratings are rounded to the nearest whole percent, the final value would be 3%.

<sup>&</sup>lt;sup>3</sup> Title 8, California Code of Regulations, Section 9727

Pain should be described by the activity(s) that produces the pain. Consider, for example, moderate pain in right knee on heavy lifting, kneeling, squatting, climbing, and walking over uneven terrain. Moderate pain in the knee that occurs on all activities (i.e. the equivalent of constant pain) is 15% (one-half of 30% standard for immobility of knee). Since the pain occurs only on more strenuous activities, the rating would be substantially less than 15%, usually 5 to 8%.

Subjective factors of disability may be combined with objective factors, or used as a standard and adjusted for occupation and age.

# C. Work Capacity

Disability may be expressed in terms of limitations on work activities. The Schedule provides a framework of work capacity guidelines for individual torso disabilities (i.e., neck, back, pelvis, abdomen, heart, chest and lungs), and separate guidelines for lower extremity disabilities. The definitions for the levels of limitations are expressed as percentage loss of pre-injury capacity to do the activities described. Thus, the rating reflects the comparison of the injured employee's ability to perform work activities post-injury with his/her ability to perform the activities pre-injury.

Loss of pre-injury capacity at levels that are not scheduled are rated by considering the relative severity of the disability in comparison with scheduled benchmarks, and assigning a standard appropriate to the loss of pre-injury capacity. For example, a 65% loss of capacity of the low back to bend, stoop, lift, push, pull, climb or other activities involving comparable physical effort, falls between a scheduled 50% loss of capacity (30% standard rating), and a scheduled 75% loss of capacity (40% standard rating). Therefore, a 65% loss of capacity falls approximately midway between and is assigned a 35% standard rating.

Loss of capacity to do *work activities* that are not scheduled may be disabling and rated. Consider, for example, a bilateral shoulder disability precluding use of arms overhead. The scheduled loss of all movement of both shoulders above shoulder level is 40% (by analogy to disability 7.333 - 40%). No overhead work reflects only the loss of the uppermost part of the arc of motion, i.e. greater than approximately 135 degrees. Limitation of shoulder motion to 135 degrees (by reference to the shoulder motion table (page 7-4) yields a fraction of 1/4, which when applied to a 40% standard, results in a 10% standard. By analogy, "no overhead work" would take a 10% standard.

## D. Combining Disability

Multiple factors of disability can result from a single injury. For example, an ankle injury might result in some limitation of ankle motion, atrophy of the calf and thigh muscles, and pain in the ankle area. In addition, there may be work restrictions, such as limitations on ability to stand, climb, squat, etc. The process of determining the final rating for each index requires that the multiple factors be combined, consideration being given to duplication and pyramiding. The index producing the higher rating is used.

# 1. Pyramiding

To combine multiple factors of disability within an extremity, single body part, or multiple areas of the body, it is necessary to avoid pyramiding. Pyramiding of disability is the unrealistic result achieved from simply adding factors together without consideration of the scheme of relative severity of disabilities established by the Schedule. Multiple factors of disability are compacted (scaled down) to avoid pyramiding.

To avoid pyramiding for a single extremity:

- 1) Determine the rating for each of the objective disabilities.
- 2) Combine the objective ratings by using the formula for the greatest disability, and to that rating, add approximately 1/2 the lesser objective disabilities.
- 3) Add subjective disability, if appropriate, to the objectives. The result is the rating for the objective/subjective index.
- 4) Determine the appropriate standard for work restriction(s), if any, after considering

- uplication and pyramiding. Adjust standard for occupation and age. The result is the rating for the work restriction index.
- 5) The final rating is the rating produced by the higher of the two indexes.

To avoid pyramiding for multiple parts of the body:

- Rate the disability for each area of the body as if it stood alone. (For each area of the body, follow instructions for a single extremity listed above.) Duplication of disability between areas of the body must also be considered before arriving at the final rating for each body part.
- 2) To avoid pyramiding, the Multiple Disabilities Table (MDT) is generally used as a guide. The MDT retains the value of the greatest disability and systematically reduces the lesser disabilities to maintain a reasonable relationship between the level of overall disability and the maximum disability possible for a single injury (100%). See Combining Multiple Disabilities on page 7-12.

# 2. Duplication

When combining multiple factors of disability resulting from a *single* injury within an extremity, single body part, or multiple areas of the body, it is necessary to avoid duplication. Duplication occurs when the combining of different factors of disability does not further reduce an injured workers' ability to compete in an open labor market beyond that resulting from a single factor standing alone. Duplication may be total, absent, or partial, as illustrated by the following examples.

<u>Total duplication</u> of disability exists in a single injury involving both the abdomen and heart, where each independently limits the injured worker to light work. The two restrictions to light work, having the same definition, totally duplicate one another and therefore do not result in a greater competitive handicap than does either standing alone. The disability number associated with the higher occupational variant would be used for the final rating.

<u>Absence of duplication</u> is demonstrated by an injury to the major shoulder, precluding use of the arm above shoulder level, and to one knee, precluding walking over uneven ground. These work restrictions reflect limitations on different types of activities, and would result in a greater disability than either factor standing alone. Therefore, each disability would be rated independently, and would be combined by following the procedures set forth under the section entitled "Combining Multiple Disabilities" on page 7-12.

<u>Partial duplication</u> is illustrated by an injury to the back which precludes heavy lifting, and to one knee which independently precludes heavy lifting and all kneeling and squatting. Heavy lifting (scheduled as a 50% loss of pre-injury lifting capacity) is a factor common in both the back and the knee descriptions of disability. However, the duplication is only partial inasmuch as the squatting and kneeling restrictions for the knee do not duplicate the lifting limitation. The heavy lifting limitation would be rated for one body part only. Whether the back or the knee rating would include the heavy lifting limitation depends on the effects of the occupational variants, the need to avoid pyramiding the disability, and the potential use of the Multiple Disabilities Table.

# 3. Overlap

When factors of disability resulting from the current injury duplicate factors resulting from a *different* injury or condition, the disabilities are said to "overlap". Overlap occurs to the extent that the factors of disability resulting from the current injury do not reduce an injured worker's ability to compete in an open labor market beyond the disability resulting from pre-existing injury(ies) and/or condition(s).

The attribution of overlapping factors of disability to different causes is called apportionment. Overlapping disability(ies) resulting from the prior injury or condition must be factored out of the current disability so that the rating reflects only the residual disability caused by the current injury. Overlap may be total, partial or absent, as illustrated in the following examples. The following examples were chosen for demonstration purposes. Actual case scenarios will likely be more complex. Mere mechanical application of the principle of overlap will not necessarily yield the correct result. For example, the degree of overlap may be affected by partial improvement following a prior injury or condition.

<u>Total overlap</u> of disability would exist in a case where a current heart disability limits the injured worker to light work and a prior injury to the abdomen has already limited the worker to light work. The two work restrictions, having the same definition, totally overlap one another. The current injury does not result in a greater competitive handicap than that resulting from the prior injury standing alone. There would be no added disability resulting from the current injury.

<u>Absence of overlap</u> is demonstrated by a current injury to the major shoulder, precluding use of the arm above shoulder level and a prior injury to the knee, precluding walking over uneven ground. There is no overlap between the current and prior disabilities since the disability from each injury reflects limitations on distinctly different activities. The injured worker is more disabled as a result of the current injury and would be entitled to a rating on all the disability resulting from the shoulder.

<u>Partial overlap</u> would exist between a current injury to one knee which precludes heavy lifting and all kneeling or squatting, and a prior injury to the back which precludes heavy lifting. The heavy lifting limitation from the current injury totally overlaps the same restriction resulting from the prior injury since it does not cause a greater competitive handicap. However, the restriction from kneeling or squatting comprises new disability resulting in a greater competitive handicap, and would form the basis of the rating for the current injury.

# **III. RULES FOR RATING**

# A. Rules for Scheduled Disabilities and Occupations

- 1) Determine the factors of disability to be rated, the occupation and the age at time of injury.
- 2) Refer to Section 2 "Disabilities and Standard Ratings" (beginning on page 2-1) to determine the disability number and standard rating, paying particular attention to any referenced notes.
- 3) Refer to Section 3 "Occupations and Group Numbers" (beginning on page 3-1) to determine occupational group number.
- 4) Refer to Section 4 "Occupational Variants" (beginning on page 4-1) to determine the appropriate occupational variant to use for the disability number-occupation group number combination.

- 5) Refer to Section 5 "Occupational Adjustment" (beginning on page 5-1) to determine the value of the standard rating after modification for occupation.
- 6) Refer to Section 6 "Age Adjustment" (beginning on page 6-1) to determine the value of the standard rating after modification for both occupation and age.

**Example:** Assume a 35 year old carpenter (construction) sustains a 50% reduction of grasping power of the major hand:

- The disability is found in Section 2 (page 2-11). The disability number is 10.511, the standard rating is 40%, and note 28 refers to the Appendix for the method of rating partial loss.
- 2) The occupation is found in Section 3 (page 3-5). The occupational group number is 380.
- 3) Referring to Section 4 (page 4-5), the disability number, 10.511 (represented in the table as 10.5), is located in the left column of the table, and that row is followed across to the column to occupational group number 380. The occupational variant found is "H."
- 4) Referring to Section 5 (page 5-2), locate 40% in the column headed "Standard Rating Percent." Follow that row across the table to the column headed by the occupational variant "H" to find that the 40% standard rating is adjusted to 46% because of the occupational variant.
- 5) Referring to Section 6 (page 6-3), the occupation-adjusted rating of 46% is located in the left hand column. Reading across that row

to the column for ages 32 - 36, the rating is found to be 44%. This is the percentage of permanent disability after adjustment for occupation and age.

6) Referring to the Appendix (page 7-6) as directed by note 28, it is found that a 50% reduction of grasping power takes a fraction of 1/3, to be applied to the rating after adjustment for occupation and age. Round the result to the nearest whole percent. The final rating formula is:

1/3 (10.511-40%-380-H-46-44) 15%

# B. Rules for Non-scheduled Disabilities

Evaluate non-scheduled disabilities:
 a) By comparison with the nearest scheduled disability;

For example, "a minor shoulder disability precluding use of the arm above shoulder level" could be compared to scheduled disability "7.332 - 13% "Limitation of abduction and forward flexion of the upper arm not permitting arm to be raised above 90 degrees" and would be assigned 13% standard.

b) By analogy to a scheduled disability; or,

For example, "ankle disability not permitting working at heights" could be analogized to scheduled disability, "Disability Precluding Climbing" (10%) since climbing is generally required to reach heights.

c) By comparison with the entire scheme of relative severity of disabilities.

The Schedule creates an arrangement of disabilities and values which stand in relationship to one another. It provides the structure necessary to assign a standard to a non-scheduled disability according to its seriousness.

For example, "a leg disability requiring the injured worker to sit for approximately 3 hours of the work day" would be a disability that falls midway between two scheduled disabilities, "Disability Precluding Prolonged Weight-bearing" (20%) and "Disability Resulting in a Limitation of Weight-bearing to Half Time" (40%) and would be assigned a 30% standard.

- 2) Determine a standard rating for the non scheduled disability. The resulting standard should be expressed as one of the following values: 1, 2, 3, 5, 8, 10, 13, 15 and multiples of 5% thereafter.
- 3) Modify the standard rating for occupation and age.

**Example:** A 43 year old grocery checker sustains an injury to the major elbow resulting in inability to do repetitive gripping with the hand.

- Work restrictions for the upper extremities are not scheduled. No "repetitive gripping" is evaluated by analogy or comparison to scheduled disabilities.
- 2) It is necessary to have an understanding of how the grip function is impaired by the work restriction. The term "repetitive" is found in the Schedule and contemplates a loss of 50% of pre-injury capacity. (See "Disability Precluding Repetitive Motion of Neck and Spine" in Spine and Torso Guidelines on page 2-14.). No repetitive gripping is thus interpreted as 50% loss of capacity to perform gripping.
- 3) A 50% reduction of grip strength, by reference to Table 4 (page 7-6) takes a fraction of 1/3 of total loss. By analogy, a preclusion from repetitive gripping results in a 13% standard. (1/3 of 10.511-40%.)
- 4) The disability number used would be 7.5, which identifies that the disability is the result of an elbow injury. The standard rating would be 13% as developed in Step 3.
- 5) The occupational group number "214" is found on page 3-12 of Section 3.
- 6) The occupation variant "F" is found on page 4-2 of Section 4.
- 7) The adjustment of the occupation variant "F" on page 5-2 of Section 5 does not change the 13%.

8) The adjustment for age 43 is found on page 6-2 of Section 6 and increases the 13% to 14%. The rating formula is:
7.5 - 13% - 214-F - 13 - 14%

# C. Rules for Non-scheduled Occupations

- 1) If the occupation is not listed in Section 3, look for an alternative job title.
- 2) If no alternative title is found, determine the basic functions and activities of the occupation and choose a scheduled occupation and/or occupational group that is comparable. ("The Dictionary of Occupational Titles" (DOT), compiled by the U.S. Department of Labor, was used extensively in the preparation of the Schedule and will frequently be of assistance in determining the functions of various occupations.)

<u>Example 1</u>: Assume occupation Stock Broker (Financial).

- 1) The occupational title does not appear in Section 3, so it becomes necessary to determine if the occupation appears under another title.
- 2) On page 3-13, the job title Investment Analyst (Financial) appears in occupational group 110. Given the similarity in functions and physical demands of these occupations, it is appropriate to use Group Number 110 for Stock Broker (Financial).

<u>Example 2</u>: Assume occupation Insulating Machine Operator (Insulated Wire).

- The job title does not appear in Section 3 and no alternative job title can be found. It therefore becomes necessary to determine the basic duties of the occupation.
- 2) If the duties are not otherwise described, the "Dictionary of Occupational Titles" may be consulted in order to determine the functions of the occupation. According to the DOT, the duties are found to primarily consist of the operation and tending of machinery used to wind insulating materials around wire and cable.
- 3) Referring to Section 3 it is found that similar machine operations are found in occupational group 230. Such group 230 occupations as Coil Winder (Elec. Equip.), Injection Molding Machine Tender (Plastic Prod.), Platen Press Operator (Print. & Pub.) and Wire Wrapping Machine Operator (Electron. Comp.) not only share common physical demands with one another, but these demands are similar to those of Insulating Machine Operator.

# **SECTION 2 - DISABILITIES AND STANDARD RATINGS**

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Use this section to determine the disability number and standard rating for the disability under consideration. Use the table of contents above to locate the part of the body and refer to the indicated page for specific types of disability within that general category. If the disability in question is not scheduled, it may be necessary to determine the disability number and standard rating by analogy or comparison to a scheduled disability. For instructions on non-scheduled disabilities, see page 1-12. It should be noted that the standard rating may be increased or decreased from the scheduled rating where the degree of disability so warrants. After establishing the disability number and standard rating, turn to Section 3 to find the occupation and occupational group number.

#### **BRAIN AND NERVOUS SYSTEM** 1.--

1.1-PARALYSIS

#### Paralysis one side of body:

1.121	Slight	20%
1.141	Moderate	60%

- 1.161
- Severe paralysis both lower extremities 1.183 (See also disability number 12.313)..... 100%

#### EPILEPSY 1.3-

1.32	Slight	25%
1.33	Slight to moderate	50%
1.34	Moderate	75%
1.36	Severe	100%

#### PSYCHIATRIC DISABILITY 1.4-

See Table for Rating Psychiatric Disabilities on page 2-3.

#### POST-TRAUMATIC HEAD SYNDROME 1.5-

1.52	Slight	20%
1.54	Moderate	50%
1.56	Severe	100%

#### 1.6 VERTIGO

1.62	Slight	10%
1.64	Moderate	50%
1.66	Severe	

#### 1.7 HEADACHES

1.72	Slight	5%
1.74	Moderate	15%
1.76	Severe	60%
1.77	Pronounced	100%

#### COGNITIVE DISORDERS<sup>3</sup> 1.8

1.82	Slight	20%
1.84	Moderate	
1.86	Severe	
1.87	Pronounced	100%

<sup>1</sup> Consideration should be given to: frequency, type and severity of episodes; frequency and duration of loss of consciousness; extent of mental impairment; type and severity of other symptoms; presence or absence of aura; effect of medication in controlling seizures; prognosis.

<sup>2</sup> May include the following factors: vertigo, impairment of memory, impairment of concentration, headaches, fatigability, nervousness, irritability, cognitive disorders.

<sup>3</sup> Cognitive disorders are considered organic mental disorders such as delirium, dementia, amnesia or other similar disorders.

Level of Impairment	Work Function Impairment Values							
	(	Froup I				G	roup	II
	1	2	3	4	5	6	7	8
Minimal	0%	0%	0%	0%	0%	0%	0%	0%
Very Slight	5	5	5	2	4	1	2	1
Slight	10	10	10	3	8	2	3	2
Slight to Moderate	20	20	20	8	19	4	8	4
Moderate	30	30	30	12	29	6	12	6
Moderate to Severe	40	40	40	16	40	8	16	8
Severe	50	50	50	20	50	10	20	10

### TABLE FOR RATING PSYCHIATRIC DISABILITIES (Disability no. 1.4)

#### Work Functions:

- 1. Ability to comprehend and follow instructions.
- 2. Ability to perform simple and repetitive tasks.
- 3. Ability to maintain a work pace appropriate to a given work load.
- 4. Ability to perform complex and varied tasks.
- 5. Ability to relate to other people beyond giving and receiving instructions.
- 6. Ability to influence people.
- 7. Ability to make generalizations, evaluations or decisions without immediate supervision.
- 8. Ability to accept and carry out responsibility for direction, control and planning.

#### **Rating Calculation:**

- I. For impairments involving a single work function:
  - (a) Select appropriate value from chart above.<sup>1</sup>
  - (b) Round the value to a standard rating.<sup>3</sup>
- II. For impairments solely within Group I:
  - (a) Select appropriate values for each work function from Table above.<sup>1</sup>
  - (b) To the greatest value, add one-half the sum of the lesser values.<sup>2</sup>
  - (c) Round the result to a standard rating.<sup>3</sup>
- III. For impairments solely within Group II:
  - (a) Select appropriate values for each work function from Table above.<sup>1</sup>

- (b) To the greatest value, add one-fifth the sum of the lesser values.<sup>2</sup>
- (c) Round the result to a standard rating.<sup>3</sup>
- IV. For impairments within both Groups I and II:
  - (a) For the Group I impairment(s), follow steps II(a) and II(b).
  - (b) For the Group II impairment(s), follow steps III(a) and III(b).
  - (c) Combine the results using the following formula:<sup>2</sup>

Group I Amount + 
$$\left[ \left( .45 - \left[ \frac{\text{Group I Amount}}{300} \right] \right) \times \text{Group II Amount} \right] \right]$$

Note: The result of this formula shall be taken at not less than that obtained in Step IV(b).

#### Notes:

- 1. When impairment within a work function falls between charted levels, generally the mid-point is used rounded to the nearest whole number.
- 2. Round the result of this calculation to the nearest whole number.
- 3. Standards ratings must be one of the following: 1, 2, 3, 5, 8, 10, 13, 15 and multiples of 5% thereafter.

When warranted by facts and evidence, a deviation from the foregoing may be employed.

#### 2.-- VISION <sup>4</sup>

#### 2.1- LOSS OF SIGHT WITH COSMETIC EFFECT

Enucleation (or evisceration) of one eye:

2.121	With ability to wear artificial eye	30%
2.131	W ith inability to wear artificial eye	35%

Loss of sight of one  $eye^5$ 

#### 2.2- LOSS OF SIGHT

2.211	Loss of sight of one eye with no blemish that would afford an observer evidence of		
	the loss	25%	
2.213	Loss of both eyes or the sight thereof	100%	

#### 2.3 REDUCTION OF VISION<sup>6</sup>

2.311 Reduction of vision, one eye to?

Distance (Snellen) as index	Near (Jaeger) as index	
	1,2,3,4	0%
	5	3%
		5%
20/50		7%
20/60		9%
20/70		11%
20/80		13%
20/100	6	16%
	7,8	19%
		22%
	9	25%
	•••••	-0/0

2.313 Reduction of vision of both eyes

### 2.4 APHAKIA (LOSS OF NATURAL LENS)<sup>9</sup>

One eye, correction of visual acuity with spectacle lens to:

2.411	20/25 or better	20%
2.421	20/30 to better than 20/50	21%

Consideration may be given to such factors as: ptosis of eyelid, entropion (turning in of the lid), ectropion (turning out of the lid), lacrimation, photophobia, chronic conjunctivitis, enlarged pupil, coloboma (irregular pupil), blurring, scarring of the eyeball.

<sup>5</sup> In case of loss of sight with blemish, the standard will vary between the ratings for disabilities 2.141 and 2.211, depending on the degree of the disfigurement.

- <sup>7</sup> When reduction of distance and near vision are both present, use index which produces the higher standard rating.
- <sup>8</sup> To obtain rating for bilateral reduction of vision, see Table 1C "Eyes - Bilateral Reduction of Vision", on page 7-3.
- <sup>9</sup> In cases of aphakia with practicable correction by means other than spectacle lens, the standard rating shall be based on disability found under reduction of vision (disability 2.3) plus 1/2 the difference between disabilities 2.4 and 2.3.

<sup>&</sup>lt;sup>6</sup> Ratings are based on vision with best practicable correction.

	2.431 2.441	20/50 to better than 20/100 20/100 or less	23% 25%
	2.413	Both eyes correctible with spectacle lens to 20/25 or better	50%
2.5	DIPLO	PIA <sup>10</sup>	
	2.511	Double vision in central 20° of field	25%
2.6	REDU	CTION OF VISUAL FIELD <sup>11</sup>	
	2.613	Loss of nasal half of field of one eye and temporal half of field of other eye	50%
		Concentric contraction of visual field to $5^\circ$	
	2.621	Unilateral	25%
	2.623	Bilateral	100%
2.7	LACRI	MATION	
	2.71	Chronic lacrimation (overflow of tears)	10%
		ing for double vision in portion of visual field yes - Diplopia", on page 7-2.	, see

#### 3. -- HEARING

3.1	LOSS OF HEARING <sup>12,13,14,15</sup>	
	Complete Loss of Hearing: 3.111 One Ear	15%
	3.113 Both Ears	60%

#### 4. -- FACE AND HEAD

#### 4.1 - COSMETIC DISFIGUREMENT

Disfigurement of the face due to scarring or deformity (to be considered in addition to loss of function):

4.11	Very slight - not noticeable except on close	
	inspection	0%
4.12	Slight	5%
4.14	Moderate	20%
4.16	Severe - Interfering markedly with ability to	
	compete in obtaining employment	50%

<sup>12</sup> Loss of 92 decibels (ANSI-1969) at 500, 1000, 2000 and 3000 Hertz shall be considered total loss of hearing.

a) Average the decibel loss at at the four prescribed frequenciesb) The first 25 decibels loss shall be excluded from the average and the remaining loss shall be multiplied by the factor 1.5.b) If a hearing aid is practicable, the permanent disability shall be based on the corrected hearing loss plus 50% of the difference between the corrected and uncorrected hearing loss.

5	Bilateral hearing loss shall be determined by the formula:
	$(5 \times 10 \text{ ss of better ear}) + 10 \text{ ss of poorer ear}$
	6

<sup>&</sup>lt;sup>11</sup> To obtain rating for partial reduction of visual field, see Table 1B "Eyes - Visual Field Reduction", on page 7-2.

<sup>&</sup>lt;sup>13</sup> In cases of partial loss of hearing, audiograms are required.

<sup>&</sup>lt;sup>14</sup> A loss of less than 92 decibels (ANSI-1969) at 500, 1000, 2000 and 3000 Hertz shall be a partial loss of hearing computed as follows:

4.17	Pronounced - Interfering markedly with	
	ability to compete in obtaining	
	employment and making personal	
	contact with others difficult	80%
4.211	Loss of e xternal ear. one side	10%

# 4.3 SKULL APERTURES (WITHOUT SATISFACTORY COVERING)

Area approximately :

4.32	1 square inch	10%
4.33	1 1/2 square inches	15%
4.34	2 square inches	20%
4.35	3 square inches	30%
4.36	5 square inches	40%
4.37	8 square inches	50%

# 4.4 SKULL APERTURE (WITH SATISFACTORY COVERING)

Area approximately :

1 square inch	3%
1 1/2 square inches	5%
2 square inches	8%
3 square inches	10%
5 square inches	12%
8 square inches	15%
	2 square inches 3 square inches 5 square inches

# 4.5 TOOTH, MOUTH, AND JAW INJURIES AFFECTING FUNCTION

Limited motion or malocclusion of the jaw interfering with normal mastication, widest opening of mouth (measured between cutting edges of teeth):

1 1/2 inches	0%
1 1/4 inches	6%
1 inch	12%
3/4 inches	18%
1/2 inches	24%
1/4 inches	30%
	1 1/4 inches 1 inch 3/4 inches 1/2 inches

#### 4.7 NOSE INJURIES AFFECTING FUNCTION

#### 5. -- SPEECH AND SPECIAL SENSES

#### 5.2 DISABILITIES AFFECTING SPEECH

- 5.21 Complete loss of speech ..... 50%
- 5.22 Difficulty in speaking (hoarseness, indistinct articulation, etc.)...... 10%

#### 5.3 IMPAIRMENT OF SMELL AND TASTE

- 5.31Loss of sense of smell5%5.32Loss of sense of taste5%
- 5.33 Loss of sense of taste and smell ..... 10%

#### 6.-- SKIN SENSITIVITY

- 6.1 SKIN CONDITION PRECLUDING OUTSIDE WORK . 25% contemplates the individual must perform work predominantly indoors, permitting some exposure to sunlight.
- 6.2 SKIN CONDITION PRECLUDING WET WORK....... 25% contemplates the individual must avoid more than incidental contact with water, and/or other liquids.

#### 7. -- SHOULDERS AND ARMS

### 7.1 AMPUTATIONS

7.111	Loss of arm at or above elbow, not above shoulder joint, reasonably satisfactory use of prosthesis <u>not</u> possible: Major	75%
7.112	Minor	70%
	Loss of arm at or above elbow, not above shoulder joint, reasonably satisfactory use of prosthesis possible:	
7.121	Major Minor	70% 65%
1.122		05%
	Loss of arm at or above wrist, below elbow, reasonably satisfactory use of forearm prosthesis <u>not</u> possible:	
7.131	Major	70%
7.132	Minor	65%
	Loss of arm at or above wrist, below elbow, reasonably satisfactory use of forearm prosthesis possible:	
7.141	Major	60%
7.142	Minor	55%
7.143	Loss of both hands at wrist joints	100%

7.3 IMPAIRMENT OF FUNCTION, SHOULDER <sup>16,17</sup>

Limitation of abduction and forward flexion of the upper arm to  $30^{\circ}$  or less from the side of the body:

7.311 7.312 7.313	Major Minor. Both	35% 30% 80%
7.331 7.332 7.333	Limitation of abduction and forward flexion of the upper arm not permitting arm to be raised above 90°. Major Minor Both.	15% 13% 40%
7.371 7.372	Chronic dislocation of shoulder joint with frequent episodes and guarding of all motions: Major Minor	30% 25%
7.381 7.382	Chronic dislocation of shoulder joint with infrequent episodes and guarding of motions at shoulder level only: Major Minor.	15% 13%

<sup>&</sup>lt;sup>16</sup> The range of motion of the shoulder joint is considered from a position of the arm at the side of the body through the full arc of motion including scapular motion.

<sup>&</sup>lt;sup>17</sup> For various degrees of limitation of motion of the shoulder joint, see Tables 2A and 2B "Shoulder - Limitation of Motion", on page 7-4.

### 7.5 IMPAIRMENT OF FUNCTION, ELBOW<sup>18</sup>

Immobility of the elbow joint in 70° to 100° flexion:

7.511	Major	35%
7.512	Minor	30%
7.513	Both	75%

# Immobility of the elbow joint in marked flexion or extension:

7.561	Major	45%
7.562	Minor	40%

#### 7.6 IMPAIRMENT OF FUNCTION, FOREARM

Complete loss of rotation of forearm in a favorable position (betweem mid-position and moderate pronation): <sup>19,20</sup>

7.611	Major	20%
7.612	Minor	17%
7.613	Both	50%

<sup>18</sup> Ratings for partial limitation of motion of the elbow joint are related to the ratings for immobility, either 7.51- or 7.56-, depending on the location of the remaining range of motion. Determine the percentage loss of motion by dividing the number of degrees of motion lost by 140°. Convert percentage loss of motion to a fraction using Table 9 on page 7-11, and apply to the rating for immobility after adjustment for occupation and age. Loss of 120° of motion or more shall be considered equivalent to total immobility.

- <sup>19</sup> In rating partial loss of forearm rotation, determine the percentage of the normal range lost. Convert percentage loss of motion to a fraction using Table 9 on page 7-11, and apply to the rating for complete loss of rotation, 7.61-, after adjustment for occupation and age.
- <sup>20</sup> Add 5% absolute for loss of the head of the radius, except that the combined rating for loss of the head of the radius and limitation of forearm rotation shall not exceed the rating for complete loss of rotation adjusted for occupation and age.

Complete loss of rotation of forearm in an	
unfavorable position (In marked supination	
or pronation):	
	~

7.661	Major	30%
7.662	Minor	25%

#### 7.7 IMPAIRMENT OF FUNCTION, WRIST

Immobility of wrist joint in favorable position

### (Approximately 30° dorsiflexion): <sup>21</sup>

7.711	Major	20%
7.712	Minor	17%
7 7 1 2	Path	E00/

### 7.713 Both..... 50%

Immobility of wrist joint in an unfavorable position (In palmar flexion, or strong dorsal, radial, or ulnar flexion):

7.761	Major	30%
7.762	Minor	25%

<sup>&</sup>lt;sup>21</sup> Partial immobility of wrist is determined by the following: Calculate 2 times percentage loss of dorsal/palmar motion plus 1 times percentage loss of radial/ulnar motion. Divide result by 3. Convert resulting percentage to a fraction using Table 9 on page 7-11, and apply to disability no. 7.71-, after adjustment for occupation and age.

# 8. -- FINGERS - AMPUTATION <sup>22,23</sup>

#### 8.1 AMPUTATION, ONE FINGER

#### Loss of Thumb

#### Major:

8.1111	At carpal joint	16%
8.1121	At proximal joint	12%
8.1131	At distal joint	6%

#### Minor:

8.1112	At carpal joint	14%
8.1122	At proximal joint	11%
8.1132	At distal joint	5%

#### Loss of Index Finger

#### Major:

8.1211	At proximal joint	8%
8.1221	At middle joint	6%
8.1231	At distal joint	4%

#### Minor:

8.1212	At proximal joint	7%
8.1222	At middle joint	5%
8.1232	At distal joint	3%

#### Loss of Middle Finger

#### Major:

	At proximal joint At middle joint	8% 6%
8.1331	At distal joint	3%
М	inor:	

8.1312	At proximal joint	7%
8.1322	At middle joint	5%
8.1332	At distal joint	2%

#### Loss of Ring Finger

#### Major :

8.1411	At proximal joint	6%
	At middle joint	4%
8.1431		2%

#### Minor:

8.1412	At proximal joint	5%
8.1422	At middle joint	3%
8.1432	At distal joint	1%

#### Loss of Little Finger

### Major:

8.1511	At proximal joint	6%
	At middle joint	4%
	At distal joint	1%

#### Minor:

8.1512	At proximal joint	5%
8.1522	At middle joint	3%
8.1532	At distal joint	1%

<sup>&</sup>lt;sup>22</sup> For amputation of a finger between joints, determine the ratings for loss at these joints, adjust the ratings for occupation and age, and interpolate between the two ratings.

<sup>&</sup>lt;sup>23</sup> Where there is limitation of motion of joints proximal to the site of amputation, give consideration to limitation of motion. The combined rating for amputation and limitation of motion cannot exceed the rating for loss of the finger.

### 8.2 AMPUTATION, TWO FINGERS

#### Loss of Thumb and Index Finger

#### Major:

8.2111	At proximal joints	30%
8.2131	At distal joints	15%
N	inor:	
111		
8.2112	At proximal joints	27%
8.2132	At distal joints	13%

#### 8.3 AMPUTATION, THREE FINGERS

#### Loss of Thumb, Index, and Middle Fingers

#### Major:

8.3111	At proximal joints	45%
8.3131	At distal joints	18%
Ν.	inor	

#### winor:

8.3112	At proximal joints	41%
8.3132	At distal joints	16%

#### 8.4 AMPUTATION, FOUR FINGERS

#### Loss of Index, Middle, Ring and Little Fingers

#### Major:

8.4211	At proximal joints	50%
8.4221	At middle joints	45%
8.4231	At distal joints	20%

#### Minor:

8.4212	At proximal joints	45%
8.4222	At middle joints	41%
8.4232	At distal joints	18%

#### Both Hands:

8.4213	At proximal joints	90%
8.4223	At middle joints	80%
8.4233	At distal joints	50%

#### 8.5 AMPUTATION, FIVE FINGERS

#### Loss of Thumb and all Fingers

#### Major:

8.5111	At proximal joints	55%
8.5131	At distal joints	22%
	-	
N	linor:	
8.5112	At proximal joints	50%
		20%
В	oth Hands:	
8.5113	At proximal joints	95%
8.5133		55%
	8.5131 N 8.5112 8.5132 B 8.5113	Minor: 8.5112 At proximal joints 8.5132 At distal joints Both Hands: 8.5113 At proximal joints

# 9. -- FINGERS - LIMITED MOTION<sup>24</sup>, <sup>25</sup>, <sup>26</sup>

#### 9.1 LIMITED MOTION, ONE FINGER

#### Immobility of Thumb

#### Major:

9.1121	Immobility proximal and distal joints	10%
9.1131	Immobility distal joint	6%
9.1141	Immobility proximal joint	4%

#### Minor:

9.1122	Immobility proximal and distal joints	9%
9.1132	Immobility distal joint	5%
9.1142	Immobility proximal joint	3%

### <sup>24</sup> Immobility of the thumb is defined as complete immobility of the proximal and distal joints in a favorable position.

- <sup>25</sup> Immobility of index, middle, ring, and little fingers is defined as failure of the tip of the finger to touch the mid-palm on active flexion by 3 inches or more.
- <sup>26</sup> For method of rating partial limitation of motion of fingers, see Table 3 "Finger - Limitation of Motion", on page 7-5.

#### Immobility of Index Finger

9.1211 9.1231 9.1212 9.1232	Major Immobility distal joint - major Minor Immobility distal joint - minor	5%
9.1232	Immobility distal joint - minor	0,0
9.1232	Immobility distal joint - minor	2%

#### Immobility of Middle Finger

9.1311	Major	8%
9.1312	Minor	7%

#### Immobility of Ring Finger

9.1411	Major	6%
9.1412	Minor	5%

#### Immobility of Little Finger

9.1511	Major	6%
9.1512	Minor	5%

#### 9.2 LIMITED MOTION, TWO FINGERS

#### Immobility of Thumb and Index Finger

9.2111	Major	25%
9.2112	Minor	22%

#### 9.3 LIMITED MOTION, THREE FINGERS

#### Immobility of Thumb, Index and Middle Fingers:

9.3111	Major	35%
9.3112	Minor	32%

#### 9.4 LIMITED MOTION, FOUR FINGERS

#### Immobility of Index, Middle, Ring and Little Fingers:

9.4211	Major	40%
9.4212	Minor	36%
9.4213	Both	85%

#### 9.5 LIMITED MOTION FIVE FINGERS

#### Immobility of Thumb and all Fingers:

9.5111	Major	45%
9.5112	Minor	41%
9.5113	Both	90%

# 10. -- HANDS, GRIP STRENGTH 27,28

#### 10.5 COMPLETE LOSS OF GRIP STRENGTH

10.511	Major	40%
10.512	Minor	
10.513	Both hands	

<sup>&</sup>lt;sup>27</sup> Rating for reduction of grip strength shall not be in addition to rating for amputation and/or limitation of motion.

<sup>&</sup>lt;sup>28</sup> For method of rating partial loss of grip strength, see Table 4 "Hand - Reduction of Grip Strength" on page 7-6.

#### 11. -- CHEST

#### 11.1 PULMONARY DISABILITY<sup>29</sup>

29

See Spine and Torso Guidelines on pages 2-14 and 2-15  $\,$ 

#### Chronic Affections of the Pulmonary Tissue:

11.12	Slight	10%
11.14	Moderate	40%
	Source	750/

11.10	Severe	15/0
11.17	Pronounced	100%

### 11.3 CARDIOVASCULAR DISABILITY<sup>30</sup>

See Spine and Torso Guidelines on pages 2-14 and 2-15

#### Heart Disease:

11.32	Slight	40%
11.34	Moderate	70%
11.36	Severe	100%

#### 11.5 RIB CAGE DISABILITY

See Spine and Torso Guidelines on pages 2-14 and 2-15

#### Reduction in Mobility of the Chest:

11.52	Slight	10%
	Moderate	
11.56	Severe	50%

Image: Restrictions involving atmospheric working conditions may beImage: unitgiven consideration. Disability precluding exposure to dust and3)fumes generally takes a 10% standard.dis

<sup>&</sup>lt;sup>30</sup> Restrictions involving emotional stress may be given consideration. Disability precluding working in emotionally stressful environments generally takes a 20% standard and should not be considered the absence of all stress. This disability contemplates the individual must avoid contacts with the public or fellow workers, or work environments, that produce situations that would give rise to nervousness, irritability and tension - such as, but not limited to: 1) working under close deadlines, 2) dealing with contentious, unreasonable or otherwise exasperating members of the public, 3) work that requires precision and attention to detail under distracting conditions.

# **12.** -- **SPINE** <sup>31, 32</sup>

#### 12.1 NECK, BACK, OR PELVIS DISABILITY

See Spine and Torso Guidelines on pages 2-14 and 2-15

#### Impaired Function of the Neck, Back, or Pelvis:

12.12	Slight	30%
12.14	Moderate	50%
12.16	Severe	100%

#### 12.3 SPINAL CORD INJURIES CAUSING PARALYSIS

12.313	Severe paralysis both lower extremities	100%
12.32	Incontinence of feces and urine	100%

# **13.** -- **ABDOMEN**<sup>33,34</sup>

#### 13.1 ABDOMINAL WEAKNESS (HERNIA)

See Spine and Torso Guidelines on pages 2-14 and 2-15

<u>Weakenss of Abdominal Muscles resulting in</u> <u>constant danger of hernia on overstrain and</u> <u>resulting in incapacity for arduous employment</u>:

13.12	Slight	10%
13.14	Moderate	30%
13 16	Severe	50%

#### 13.2 LOSS OR IMPAIRMENT OF ABDOMINAL ORGANS

13.21 Loss of one kidney..... 20%

<sup>&</sup>lt;sup>31</sup> The degree of disability following injury to the spinal or pelvic regions is measured principally by the effects of limitations of motions in all directions, weakness, pain, tenderness, limited endurance, and such concomitant factors as genito-urinary symptoms, spinal cord pressure symptoms, deformity, impairment of gait, etc. Alternatively, impairment of work capacity may be used as an index of disability.

<sup>&</sup>lt;sup>32</sup> Need for a back brace is not in itself an index of the degree of disability. However, necessity for use of a back brace may be considered in conjunction with other elements comprising the back disability.

<sup>&</sup>lt;sup>33</sup> Restrictions involving emotional stress may be given consideration. Disability precluding working in emotionally stressful environments generally takes a 20% standard and should not be considered the absence of all stress. This disability contemplates the individual must avoid contacts with the public or fellow workers, or work environments, that produce situations that would give rise to nervousness, irritability and tension - such as, but not limited to: 1) working under close deadlines, 2) dealing with contentious, unreasonable or otherwise exasperating members of the public, 3) work that requires precision and attention to detail under distracting conditions.

<sup>&</sup>lt;sup>34</sup> Need for a truss is not in itself an index of the degree of disability. However, necessity for use of a truss may be considered in conjunction with other elements comprising the disability.

# SPINE AND TORSO GUIDELINES <sup>1,2</sup>

<u>Work Capacity</u> <u>As Index<sup>3</sup></u>	<u>Standard</u> <u>Rating</u>	<u>Subjective Factor</u> <u>As Index<sup>4,5</sup></u>	<u>Standard</u> <u>Rating</u>
Disability Precluding Very Heavy Lifting contemplates the individual has lost approximately 25% of pre-injury capacity for lifting. (A statement "inability to lift 50 pounds" is not meaningful. The total lifting effort, including weight, distance, endurance, frequency, body position and similar factors should be considered with reference to the particular individual.)	10%	<u>Disability Resulting from</u> <u>Constant Slight Pain</u> contemplates an individual with pair which can be tolerated, but causes son handicap in performance of activity.	n
<u>Disability Precluding Very Heavy Work</u> contemplates the individual has lost approximately 25% of pre-injury capacity for performing such activities as bending, stooping, lifting, pushing, pulling and climbing or other activities involving comparable physical effort.	15%		
Disability Precluding Repetitive Motions of Neck or Back contemplates the individual has lost approximately 50% of pre-injury capacity for flexing, extending, bending, and rotating neck or back.	15%		
<u>Disability Precluding Heavy Lifting</u> contemplates the individual has lost approximately 50% of pre-injury capacity for lifting. (See statement regarding lifting under "Very Heavy Lifting" above)	20%		
Disability Precluding Heavy Lifting and Repeated Bending and Stooping contemplates the individual has lost approximately 50% of pre-injury capacity for lifting, bending and stooping.	25%		
<u>Disability Precluding Heavy Work</u> contemplates the individual has lost approximately 50% of pre-injury capacity for performing such activities as bending, stooping, lifting, pushing, pulling, and climbing or other activities involving comparable physical effort.		<u>Disability Resulting from</u> Constant Slight to Moderate Pain	30%

# SPINE AND TORSO GUIDELINES <sup>1,2</sup> (cont')

<u>Work Capacity</u> <u>As Index<sup>3</sup></u>	<u>Standard</u> <u>Rating</u>	<u>Subjective Factor</u> <u>As Index<sup>4,5</sup></u>	<u>Standard</u> <u>Rating</u>
<u>Disability Precluding Substantial Work</u> contemplates the individual has lost approximately 75% of pre-injury capacity for performing such activities as bending, stooping, lifting, pushing, pulling, and climbing or other activities involving comparabl physical effort.			
<u>Disability Resulting in Limitation to Light Work</u> contemplates the individual can do work in a standing or walking position, with a minimum of demands for physical effort.	50%	<u>Disability Resulting from</u> <u>Constant Moderate Pain</u> contemplates an individual with pair which can be tolerated, but causes marked handicap in the performance activity.	ı
Disability Resulting in Limitation to Semi-sedentary Work contemplates the individual can do work approximately 50% of the tim in a sitting position, and approximately 50% of the time in a standing or walking position, with a minimum of demands for physical effort whether standing, walking or sitting.	e		
<u>Disability Resulting in Limitation to Sedentary Work</u> contemplates the individual can do work predominantly in a sitting position at a bench, desk or table with a minimum of demands for physical effort and with some degree of walking and standing being permitted.	70%		

<sup>1.</sup> 2. 3. 4.

Either or both indexes of disability may be used to describe a particular condition. The final rating is to be based on the index yielding the higher rating. When warranted by facts and evidence, additional factors may be considered resulting in a change in the disability rating. Guidelines using work capacity as an index apply to neck, back, pelvis, heart, pulmonary and abdominal disabilities. Guidelines using subjective factors as index apply to neck, back, pelvis and abdominal disabilities. Sector 200727 8CCR9727.

Objective factors of disability may be considered in conjunction with spine or torso pain. 5.

# 14. -- LOWER EXTREMITIES <sup>35</sup>

#### 14.1. AMPUTATIONS, LEGS

	oss of leg at or above knee, reasonably atisfactory use of prosthesis <u>not</u> possible: One Both.	80% 100%
	oss of leg at or above knee, reasonably atisfactory use of prosthesis possible: One Both	65% 95%
re	oss of leg at or above ankle, below knee, easonably satisfactory use of lower leg rosthesis <u>not</u> possible: One Both	75% 100%
re	oss of leg at or above ankle, below knee, easonably satisfactory use of lower leg rosthesis possible: One Both	50% 85%
	Loss of foot through the tarsus, with satisfactory stump: One Both	35% 70%
I	Loss of foot through the metatarsal region, at a point involving the arch, with satisfactory stump:	

<sup>35</sup> The degree of disability is measured principally by factors such as amputation, shortening, limitation of motion, instability, weakness, atrophy of thigh or calf muscles, the need for external devices, (braces, canes, crutches) or orthopedic appliances, pain, tenderness or numbness. Alternatively, impairment of work capacity may be used as an index of disability. For impairment of capacity, see the Lower Extremity Guidelines on page 2-19.

14.161	One	30%
14.163	Both	60%

#### 14.2 AMPUTATIONS, TOES

	14.211 14.213	Loss of all toes at proximal joints: One foot Both feet	20% 40%
	14.221	Loss of great toe one foot at proximal joint	10%
	14.231	Loss of great toe one foot at distal joint	5%
	14.251	Loss of all toes one foot except great toe at proximal joints	10%
	14.261	Loss of any toe other than great toe at proximal joint, one foot	2%
14.3		ENING LOWER EXTREMITIES <sup>36</sup> Shortening one leg, 2 inches	20%
14.4	HIP DIS	ABILITIES <sup>37</sup>	
	14.411 14.413	Immobility of hip joint in favorable position (approximately 20° <sup>flexion</sup> and 10° abduction): One Both	45% 100%
	14.461	Immobility of one hip joint in an unfavorable position requiring the use of crutch or crutches	80%
-			

<sup>36</sup> For greater or lesser amounts of shortening, see Table 5 - "Leg -Shortening", on page 7-7.

<sup>37</sup> For method of rating partial loss of motion of the hip, see Tables 6A and 6B - "Hip - Limitation of Motion" on page 7-8.

I	mmobility of knee joint in extension or in not over 20° <sup>flexion: 40,41</sup>	
r	not over $20^{\circ}$	
14.511	One	30%
14.513	Both	75%
		/
14.531	Atrophy of thigh muscles, 2 inches <sup>42,43</sup>	20%
I	nstability of knee joint: <sup>44</sup>	
14.541	One, slight	10%
14.551	One, moderate	20%
14.553	Both, moderate	50%

#### KNEE

- <sup>38</sup> Where limited motion, instability of knee joint, thigh atrophy, or use of brace are present, the disability producing the greater rating only is used.
- <sup>39</sup> Allow 5% absolute for loss of patella.
- <sup>40</sup> For method of rating partial loss of motion of the knee, see Tables 7A and 7B - "Knee - Limitation of Motion", on page 7-9.
- <sup>41</sup> Should knee brace limit flexion of knee, consider rating under disability 14.51- immobility of knee.
- <sup>42</sup> Measurement is to be taken at mid-thigh level.
- <sup>43</sup> For greater or lesser amounts of atrophy, refer to Table 8A "Thigh Atrophy", on page 7-10.
- <sup>44</sup> Leg braces, when prescribed may be used as an index to degree of instability:

Stretch knee brace (not an Ace bandage), is considered equivalent to 14.541 - slight instability - 10%. (Stretch knee brace means an elastic knee support, without metal reinforcement, causing only minimal limitation of knee flexion.) Local knee brace is considered equivalent to 14.551 - moderate instability - 20%. (Local knee brace means a knee brace confined to knee joint area with reinforcement which permits flexion of knee.)

Long leg brace is considered equivalent to 14.561 severe instability - 40%. (Long leg brace means a rigid knee brace originating at thigh or above extending to shoe, either with or without ankle hinge.)

## 14.6 ANKLE DISABILITIES<sup>45</sup>

Immobility of ankle joint, in a favorable position (in right angle position to the line of weight bearing or in not more than 10°	
plantar flexion): <sup>46,47</sup>	
14.611 One	20%
14.613 Both	50%
14.621 Immobility of one ankle joint in marked	
(approximately 40°) plantar flexion	40%
48.40	4 5 0/
14.631 Atrophy of calf muscles - 2 inches <sup>48,49</sup>	15%

Instability of ankle joint:<sup>50</sup>

#### ANKLE

- <sup>45</sup> Where limited motion, instability of ankle joint, calf atrophy or use of brace are present, the disability producing the greater rating only is used.
- <sup>46</sup> For partial immobility of ankle, calculate percentage loss of dorsal/plantar motion. Separately, calculate percentage loss of inversion and eversion and multiply result by 2/3. Add the larger percentage loss to one-half of the smaller percentage loss. Convert resulting percentage to a fraction using Table 9 on page 7-11, and apply result to disability no. 14.611 immobility of ankle joint.
- <sup>47</sup> Where ankle is immobile in more than 10° but less than 40° plantar flexion interpolate between disabilities 14.611 and 14.621.
- <sup>48</sup> Measurement to be taken at point of greatest circumference.
- <sup>49</sup> For greater or lesser amounts of atrophy, refer to Table 8B -"Calf Atrophy", on page 7-10.
- <sup>50</sup> Leg braces when prescribed may be used as an index to degree of instability:

Elastic ankle support (not an Ace bandage) without reinforcement, causing only minimal limitation of ankle motion, is considered equivalent to 14.641 - slight instability - 8%

14.641 One, Slight	8%
14.651 One, Moderate	
14.653 Both, Moderate	40%
14.661 One, Severe	30%

#### 14.7 IMPAIRMENT OF FUNCTION, TOES

#### Immobility of all toes:

14.711	One foot	12%
14.713	Both feet	24%

#### Immobility of great toe, one foot: 14.721 Both joints...... 14.731 Proximal joint

14.741	Distal joint	2%
14.751	Immobility of all toes one foot except great toe	4%

14.761	Immobility of any toe other than great toe,	
	one foot	1%

### 14.8 POST THROMBOPHLEBITIC DISABILITY: <sup>51,52</sup>

 Unilateral:
 10%

 14.821
 Slight
 10%

 14.841
 Moderate
 30%

 14.861
 Severe
 80%

 14.871
 Pronounced
 100%

8%

6%

Rigid molded laced ankle support permitting only minimal ankle motion is considered equivalent 14.611 - Immobility, ankle joint - 20%.

Drop foot brace providing for support of foot, permitting dorsal and plantar flexion but restricting inversion and eversion of foot is considered equivalent to 14.661 - severe instability - 30%.

<sup>&</sup>lt;sup>51</sup> Factors to be considered are degree and duration of swelling; claudication; limitation of ability to stand or walk; discoloration, pigmentation, or cyanosis; eczema or ulceration; pain.

<sup>&</sup>lt;sup>52</sup> Where an elastic stocking below the knee is prescribed, the minimum rating is 10% standard. Other factors may be considered in additional to the elastic stocking. An elastic stocking extending above the knee does not in itself indicate a greater degree of disability.

# LOWER EXTREMITY GUIDELINES 1,2

<u>Work Capacity</u> As Index	<u>Standard</u> <u>Rating</u>	<u>Work_Capacity</u> As Index	<u>Standard</u> <u>Rating</u>
Disability Precluding Squatting and/or Kr contemplates loss of approximately 90- pre-injury capacity for squatting and/o	neeling5% -100% of worker's	Disability Precluding Heavy Lifting ing Climbing, Walking Over Uneven Squatting, Kneeling, Crouching, Cra or other activities involving compar	, and Preclud30% Ground, wling, and Pivoting,
Disability Precluding Climbing		<u> </u>	<u> </u>
contemplates loss of approximately 90- worker's pre-injury capacity for climbi	100% of ng.	Disability Precluding Heavy Lifting Weight-Bearing, and Precluding Cl Over Uneven Ground, Squatting, Kne Crawling, and Pivoting or other act	imbing,Walking eeling, Crouching,
<u>Disability Precluding Walking Over Uneve</u> contemplates loss of approximately 90- worker's pre-injury capacity for walkin	-100% of	comparable physical effort.	Ū.
rough terrain.		Disability Resulting in Limitation o	<u>f</u> 40%
<u>Disability Precluding Very Heavy Lifting</u> contemplates loss of approximately 25% worker's pre-injury capacity for lifting	% of	<u>Weight-bearing to Half Time</u> contemplates ability to do work 50% of time in standing and wall requires sitting approximately 5	king position, and
Disability Precluding Climbing, Walking O Uneven Ground, Squatting, Kneeling, Crouc Crawling, and Pivoting, or other activities comparable physical effort.	hing,	<u>Disability Resulting in Limitation to</u> <u>Semi-Sedentary Work</u> contemplates ability to do work 50% of the time in a sitting posi 50% of the time in a standing or	approximately tion, and approximately
<u>Disability Precluding Prolonged Weight-E</u> contemplates ability to do work appro 75% of time in standing and walking po	ximately osition, and	minimum of demands for physic walking, or sitting.	
requires sitting approximately 25% of	time.	Disability Resulting in Limitation to contemplates ability to do work	
Disability Precluding Heavy Lifting contemplates loss of approximately 50% pre-injury capacity for lifting.		in a sitting position at a bench, of minimum of demands for physic degree of standing and walking	lesk or table with a al effort and with some

Need for orthopedic appliances may be considered in conjunction with other elements comprising the disability.
 When warranted by facts and evidence, additional factors may be considered resulting in a change in the disability rating.
NOTES:

### **SECTION 3 - OCCUPATIONS AND GROUP NUMBERS**

Use this list to determine the occupational group number for the disability being rated. Find the occupation in the alphabetical list and record the associated group number. Note that some occupations may have more than one title and that all variations may not be listed. Also note that some titles may appear more than once, but pertain to different industries. Care should be taken to ensure that the industry designated also matches the occupation under consideration. If the occupation cannot be located, it will be necessary to determine the basic functions and activities of the occupation and relate it to a comparable scheduled occupation to determine the appropriate group number.

After establishing the occupation and group number, turn to Section 4 to determine the occupational variant.

111ABSTRACTORprofess. & kin.390ANIMAL TRAINER110ACADEMIC DEANeducation491ANIMAL RIDE ATTENI110ACCOUNT EXECUTIVEbusiness ser.210ANNOUNCER111ACCOUNT INFORMATION CLERKutilities460ANODIZER111ACCOUNTANTprofess. & kin.380ANTENNA INSTALLER111ACCOUNTANT, PROPERTYprofess. & kin.380ANTENNA INSTALLER111ACCOUNTING CLERKclericalCOMMUNICATIONSTALLER111ACCOUNTING CLERKclericalCOMMUNICATIONSTALLER111ACCOBATamuse. & rec.110APPEALS REFEREE210ACTORamuse. & rec.111APPOINTMENT CLERK310ACUPRESSURISTmedical ser.212APPRAISER, ART211ADDRESSING MACHINE OPERATORclerical212APPRAISER, BUSINES111ADMINISTRATIVE ANALYSTany industry213APPRAISER, REAL ES'	Industry
110ACADEMIC DEANeducation491ANIMAL RIDE ATTENI110ACCOUNT EXECUTIVEbusiness ser.210ANNOUNCER111ACCOUNT INFORMATION CLERKutilities460ANODIZER111ACCOUNTANTprofess. & kin.380ANTENNA INSTALLER111ACCOUNTANT, PROPERTYprofess. & kin.380ANTENNA INSTALLER111ACCOUNTING CLERKclericalCOMMUNICATIONS590ACROBATamuse. & rec.110APPEALS REFEREE210ACTORamuse. & rec.111APOINTMENT CLERK310ACUPRESSURISTmedical ser.212APPRAISER, ART211ADDRESSING MACHINE OPERATORclerical212APPRAISER, BUSINES	amuse. & rec.
110ACCOUNT EXECUTIVEbusiness ser.210ANNOUNCER111ACCOUNT INFORMATION CLERKutilities460ANODIZER111ACCOUNTANTprofess. & kin.380ANTENNA INSTALLER111ACCOUNTANT, PROPERTYprofess. & kin.380ANTENNA INSTALLER111ACCOUNTING CLERKclericalCOMMUNICATIONS590ACROBATamuse. & rec.110APPEALS REFEREE210ACTORamuse. & rec.111APPOINTMENT CLERK310ACUPRESSURISTmedical ser.212APPRAISER, ART211ADDRESSING MACHINE OPERATORclerical212APPRAISER, BUSINES	DANT amuse. & rec.
111ACCOUNTANTprofess. & kin.380ANTENNA INSTALLER111ACCOUNTANT, PROPERTYprofess. & kin.380ANTENNA INSTALLER111ACCOUNTING CLERKclericalCOMMUNICATIONS590ACROBATamuse. & rec.110APPEALS REFEREE210ACTORamuse. & rec.111APPOINTMENT CLERK310ACUPRESSURISTmedical ser.212APPRAISER, ART211ADDRESSING MACHINE OPERATORclerical212APPRAISER, BUSINES	radio-tv broad.
111ACCOUNTANT, PROPERTYprofess. & kin.380ANTENNA INSTALLER111ACCOUNTING CLERKclericalCOMMUNICATIONS590ACROBATamuse. & rec.110APPEALS REFEREE210ACTORamuse. & rec.111APPOINTMENT CLERK310ACUPRESSURISTmedical ser.212APPRAISER, ART211ADDRESSING MACHINE OPERATORclerical212APPRAISER, BUSINES	any industry
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210ACTORamuse. & rec.111APPOINTMENT CLERK310ACUPRESSURISTmedical ser.212APPRAISER, ART211ADDRESSING MACHINE OPERATORclerical212APPRAISER, BUSINES	
310ACUPRESSURISTmedical ser.212APPRAISER, ART211ADDRESSING MACHINE OPERATORclerical212APPRAISER, BUSINES	government ser.
211ADDRESSING MACHINE OPERATORclerical212APPRAISER, BUSINES	K clerical
	any industry
111 ADMINISTRATIVE ANALYST any industry 213 APPRAISER, REAL ES	SS EQPT. any industry
211 ADMINISTRATIVE CLERK clerical 330 ARBOR PRESS OPERA	ATOR any industry
212 ADMINISTRATOR, HEALTH CARE medical ser. 370 ARC CUTTER	welding
FACILITY 212 ARCHITECT	profess. & kin.
111 ADMISSIONS EVALUATOR education 111 ARCHIVIST	profess. & kin.
212AIR ANALYSTprofess. & kin.320ARMATURE BANDER	any industry
481 AIR CONDITIONING INSTALLER construction 350 ARMORED CAR DRIVE	
SERV., WINDOW UNIT 390 ARMORED CAR GUAR	RD business ser.
480 AIR HAMMER OPERATOR construction 111 ART DIRECTOR	motion picture
212AIR TRAFFIC CONTROL SPECIALIST, government ser.221ARTIFICIAL FLOWER	
TOWER 220 ARTIFICIAL PLASTIC	
380AIRCRAFT BODY REPAIRERair trans.480ASPHALT RAKER	construction
380 AIRCRAFT BONDED STRUCTURES aircraft mfg. 351 ASPHALT SURFACE H   REPAIRER OPERATOR	
460AIRCRAFT SERVICE WORKERair trans.351ASPHALT DISTRIBUTO	
341AIRCRAFT SERVICE ATTENDANTair trans.351ASPHALT PAVING MA380AIRFRAME AND POWER PLANTaircraft mfg.OPERATOR	ACHINE construction
MECHANIC 120 ASSEMBLER	jewelry-silver.
213AIRLINE TRANSPORTATION AGENTair trans.221ASSEMBLER	house. appl.
213AIRPLANE INSPECTORair trans.221ASSEMBLER, ELECTR	
250AIRPLANE PILOT, COMMERCIALair trans.370ASSEMBLER, INTERNA	e
322 AIRPLANE FLIGHT ATTENDANT air trans. COMBUSTION ENG	
111ALARM SIGNAL OPERATORany industry370ASSEMBLER, MOTOR	
560AMBULANCE ATTENDANTmedical ser.221ASSEMBLER, MUSICA560AMBULANCE DRIVERmedical ser.INSTRUMENTS	
340AMUSEMENT PARK ATTENDANTamuse. & rec.320ASSEMBLER, OFFICE	
210 AMUSEMENT PARK ENTERTAINER amuse. & rec. 221 ASSEMBLER, PRODUC	
220ANESTHESIOLOGISTmedical ser.120ASSEMBLER, SEMICO	
310ANGIOGRAM TECHNOLOGISTmedical ser.221ASSEMBLER, SMALL	
491ANIMAL KEEPERamuse. & rec.380ASSEMBLER, SUBASS	SEMBLY aircraft mfg.

Group No.	Occupation	Industry	Group No.	Occupation	Industry
380	ASSEMBLER-INSTALLER, GENERAL	aircraft mfg.	330	BARREL ASSEMBLER	wood. container
590	ATHLETE, PROFESSIONAL	amuse. & rec.	460	BARREL FILLER	beverage
390	ATHLETIC TRAINER	amuse. & rec.	322	BARTENDER	hotel & rest.
111	ATTENDANCE CLERK	education	221	BASKET MAKER	wood. container
111	AUCTION CLERK	retail trade	230	BATCH STILL OPERATOR	chemical
210	AUCTIONEER	retail trade	321	BATTERY ASSEMBLER, DRY CELL	elec. equip.
212	AUDIO OPERATOR	radio-tv broad.	321	BATTERY REPAIRER	any industry
221	AUDIO VIDEO REPAIRER	any industry	290	BEAUTICIAN	personal ser.
251	AUDIOVISUAL PRODUCTION	profess. & kin.	230	BED LASTER	boot & shoe
	SPECIALIST		491	BEEKEEPER	agriculture
111	AUDIT CLERK	clerical	360	BELLHOP	hotel & rest.
111	AUDITOR	profess. & kin.	221	BENCH WORKER	optical goods
251	AUDITOR, FIELD	profess. & kin.	330	BENDING MACHINE OPERATOR	any industry
330	AUTOCLAVE OPERATOR	aircraft mfg.	320	BICYCLE REPAIRER	any industry
370	AUTOMATED EQUIPMENT	machinery mfg.	480	BILLBOARD & SIGN ERECTOR	fabrication, nec
	INSTALLER		480	BILLBOARD ERECTOR HELPER	construction
370	AUTOMOBILE ASSEMBLER	auto. mfg.	112	BILLING CLERK	clerical
340	AUTOMOBILE DETAILER	automotive ser.	213	BILLPOSTER	business ser.
111	AUTOMOBILE LOCATOR	retail trade	230	BINDERY WORKER	print. & pub.
321	AUTOMOBILE UPHOLSTERER	automotive ser.	212	BIOCHEMIST	profess. & kin.
340	AUTOMOBILE WASHER & POLISHER	automotive ser.	110	BIOLOGY SPECIMEN TECHNICIAN	profess. & kin.
460	AUTOMOBILE WRECKER	wholesale tr.	320	BIOMEDICAL EQUIPMENT	profess. & kin.
370	AUTOMOBILE ACCESSORIES	automotive ser.		TECHNICIAN	1
	INSTALLER		430	BLACKSMITH	forging
370	AUTOMOBILE BODY REPAIRER	automotive ser.	460	BLACKSMITH HELPER	forging
214	AUTOMOBILE REPAIR SERVICE	automotive ser.	480	BLASTER	mining;
	ESTIMATOR				construction
370	AUTOMOBILE SERVICE STATION	automotive ser.	332	BLENDER	petrol. refin.
010	MECHANIC		240	BLIND AIDE	personal ser.
380	AWNING MAKER	tex. prod., nec.	330	BLISTER MACHINE OPERATOR	any industry
240	BABYSITTER	domestic ser.	220	BLOCKER AND CUTTER, CONTACT	optical goods
460	BAGGAGE HANDLER	r.r. trans.	220	LENS	option goods
214	BAGGER	retail trade; groceries	221	BLOCKER, HAND	hat & cap
490	BAILIFF	government ser.	230	BLUEPRINTING MACHINE OPERATOR	any industry
322	BAKER	hotel & rest.	380	BOAT REPAIRER	ship-boat mfg.
460	BAKER HELPER	bakery products	380	BOAT RIGGER	retail trade
420	BAKER	bakery products	380	BOATBUILDER, WOOD	ship-boat mfg.
322	BAKERY SUPERVISOR	bakery products	390	BODYGUARD	personal ser.
330	BAND-SAWING MACHINE OPERATOR	fabrication, nec	332	BOILER OPERATOR	any industry
230	BAND SAWING MACHINE OF ERATOR	saw. & plan.	332	BOILER TENDER	any industry
230	BANK CLERK	financial	430	BOILERMAKER	struct. metal
290	BARBER	personal ser.	460	BOILERMAKER HELPER	struct. metal
290	DANDEN	personal set.	+00	BOILERWAREN HELI EN	suuci. metai

Group No.	Occupation	Industry	Group No.	Occupation	Industry
111	BONDING AGENT	business ser.	480	BUILDING CLEANER, OUTSIDE	any industry
322	BONER, MEAT	meat products	213	BUILDING INSPECTOR	government ser.
221	BOOK REPAIRER	any industry	213	BUILDING INSPECTOR	insurance
320	BOOKBINDER	print. & pub.	380	BUILDING MAINTENANCE REPAIRER	any industry
112	BOOKKEEPER	clerical	351	BULLDOZER OPERATOR	any industry
112	BOOKKEEPER, GENERAL LEDGER	clerical	380	BURGLAR ALARM	business ser.
351	BOOM CONVEYOR OPERATOR	any industry		INSTALLER/REPAIRER	
330	BORING MACHINE OPERATOR	woodworking	330	BURNING MACHINE OPERATOR	welding
230	BOTTLE PACKER	beverage	250	BUS DRIVER	motor trans.
390	BOUNCER	amuse. & rec.	322	BUS PERSON	hotel & rest.
221	BOW MAKER	any industry	110	BUSINESS MANAGER	amuse. & rec.
331	BOWLING BALL MOLDER	toy-sport equip.	111	BUSINESS REPRESENTATIVE, LABOR	profess. & kin.
321	BOX MAKER, PAPERBOARD	any industry		UNION	1
321	BOX MAKER, WOOD	wood. container	420	BUTCHER, ALL-ROUND	meat products
230	BOX PRINTING MACHINE OPERATOR	any industry	322	BUTCHER, MEAT	hotel & rest.
230	BOX BLANK MACHINE OPERATOR	wood. container	240	BUTLER	domestic ser.
60	BOX FOLDING MACHINE OPERATOR	paper goods	460	BUTTERMAKER	dairy products
21	BOX SPRING MAKER	furniture	230	BUTTONHOLE AND BUTTON SEWING	garment
211	BRAILLE OPERATOR	print. & pub.		MACHINE OPERATOR	0
11	BRAILLE PROOFREADER	nonprofit org.	320	CABINETMAKER	woodworking
370	BRAKE REPAIRER	automotive ser.	320	CABLE ASSEMBLER AND SWAGER	aircraft mfg.
330	BRAKE PRESS OPERATOR	any industry	380	CABLE INSTALLER-REPAIRER	utilities
30	BRAZING MACHINE OPERATOR	welding	380	CABLE MAINTAINER	utilities
30	BREAD WRAPPING MACHINE	any industry	480	CABLE PULLER	construction
	OPERATOR	····· j ······ ··· j	380	CABLE SPLICER	construction
332	BREWERY CELLAR WORKER	beverage	481	CABLE TELEVISION INSTALLER	radio-tv broad.
331	BRICK AND TILE MAKING MACHINE	brick & tile	380	CABLE TESTER	tel. & tel.
-	OPERATOR		360	CADDIE	amuse. & rec.
81	BRICKLAYER	construction	322	CAFETERIA ATTENDANT	hotel & rest.
481	BRICKLAYER APPRENTICE	construction	480	CAGER	mine & quarry
180	BRICKLAYER HELPER	construction	221	CAKE DECORATOR	bakery products
182	BRIDGE MAINTENANCE WORKER	construction	120	CALLIGRAPHER	profess. & kin.
182	BRIDGE WORKER	construction	360	CAMERA OPERATOR	motion picture
31	BRIQUETTE MACHINE OPERATOR	fabrication, nec	220	CAMERA REPAIRER	photo. appar.
330	BROACHING MACHINE OPERATOR,	machine shop	390	CAMP COUNSELOR	amuse. & rec.
	PRODUCTION	r	340	CAMPGROUND ATTENDANT	amuse. & rec.
321	BROOM STITCHER	fabrication, nec	230	CAN-FILLING AND CLOSING	can. & preserv.
492	BUCKER	logging		MACHINE TENDER	Freedom of Pressor ()
111	BUDGET ANALYST	government ser.	221	CANDLEMAKER	fabrication, nec
321	BUFFER	any industry	331	CANDY MAKER	sugar & conf.
230	BUFFING MACHINE TENDER,	any industry	221	CANER	furniture
	AUTOMATIC				

Group No.	Occupation	Industry	Group No.	Occupation	Industry
230	CANNERY WORKER, HAND OR MACHINE	can. & preserv.	330	CELLOPHANE BAG MACHINE OPERATOR	paper goods
420	CANVAS REPAIRER	any industry	481	CEMENT MASON	construction
230	CAP-LINING MACHINE OPERATOR	any industry	480	CEMENT SPRAYER, NOZZLE	construction
320	CAPACITOR ASSEMBLER	elec. equip.	480	CEMENT MASON HELPER	construction
322	CAR HOP	hotel & rest.	480	CEMENTER, OILWELL	petrol. & gas
460	CARBIDE POWDER PROCESSOR	machine shop	331	CENTER MACHINE OPERATOR	sugar & conf.
110	CARDIAC MONITOR TECHNICIAN	medical ser.	380	CENTRAL OFFICE REPAIRER	tel. & tel.
212	CARDIOPULMONARY TECHNOLOGIST	medical ser.	331	CENTRIFUGAL EXTRACTOR OPERATOR	any industry
240	CARDROOM ATTENDANT	amuse. & rec.	230	CENTRIFUGE OPERATOR, PLASMA	medical ser.
360	CARGO AGENT	air trans.		PROCESSING	
380	CARPENTER	construction	230	CENTRIFUGE SEPARATOR	chemical
380	CARPENTER APPRENTICE	construction		OPERATOR	
480	CARPENTER HELPER	construction	110	CEPHALOMETRIC ANALYST	medical ser.
380	CARPENTER, ACOUSTICAL	construction	331	CERAMIC COATER, MACHINE	any industry
380	CARPENTER, MAINTENANCE	any industry	460	CHAIN OFFBEARER	saw. & plan.
380	CARPENTER, RAILCAR	railroad equip.	492	CHAIN SAW OPERATOR	logging
481	CARPENTER, ROUGH	construction	331	CHAR CONVEYOR TENDER	sugar & conf.
380	CARPENTER, SHIP	ship-boat mfg.	230	CHARGE PREPARATION TECHNICIAN	electron. comp.
480	CARPET CUTTER	retail trade	492	CHASER	logging
481	CARPET LAYER	retail trade	250	CHAUFFEUR	any industry
321	CARPET SEWER	carpet & rug	111	CHECK CASHIER	business ser.
230	CARPET WEAVER	carpet & rug	360	CHECKER	laundry & rel.
480	CARPET LAYER HELPER	retail trade	214	CHECKER, GROCERY	retail trade
330	CARTON-FORMING MACHINE	any industry	360	CHECKER, UNLOADER	clerical
	OPERATOR		240	CHECKROOM ATTENDANT	any industry
460	CARTON-FORMING MACHINE	paper goods	322	CHEESE CUTTER	dairy products
	TENDER	Pupu good	322	CHEESEMAKER	dairy products
120	CARTOONIST, MOTION PICTURES	motion picture	322	CHEF DE FROID	hotel & rest.
111	CASEWORKER	social ser.	212	CHEMICAL ENGINEER	profess. & kin.
320	CASH REGISTER SERVICER	any industry	212	CHEMICAL LABORATORY	profess. & kin.
111	CASHIER	clerical	212	TECHNICIAN	protess. ee kiin.
214	CASHIER-CHECKER	retail trade	230	CHEMICAL PREPARER	chemical
230	CASING MACHINE OPERATOR	meat products	212	CHEMIST	profess. & kin.
330	CASTER	smelt. & refin.	240	CHILD MONITOR	domestic ser.
331	CASTER	jewelry-silver.	111	CHILD SUPPORT OFFICER	government ser.
320	CASTING REPAIRER	any industry	340	CHILD-CARE ATTENDANT,	education
320	CATERER	personal ser.	540	HANDICAPPED	equeunon
491	CATTLE HERDER	agriculture	340	CHILDREN'S INSTITUTION	any industry
480	CAULKER	construction	540	ATTENDANT	any moustry
.00		construction	341	CHIMNEY SWEEP	any industry

Group No.	Occupation	Industry	Group No.	Occupation	Industry
460	CHIPPER, ROUGH	any industry	221	CLOTH TESTER, QUALITY	textile
311	CHIROPRACTOR	medical ser.	390	COACH, PROFESSIONAL ATHLETES	amuse. & rec.
311	CHIROPRACTOR ASSISTANT	medical ser.	331	COATER OPERATOR	any industry
460	CHOCOLATE PRODUCTION MACHINE OPERATOR	sugar & conf.	331 320	COATING MACHINE OPERATOR COBBLER	paper & pulp boot & shoe
560	CHOKE SETTER	logging	230	COFFEE ROASTER	food prep., nec
492	CHOPPER	logging	230	COIL WINDER	elec. equip.
191	CHRISTMAS TREE FARM WORKER	forestry	221	COIL WINDER, REPAIR	any industry
320	CHUCKING LATHE OPERATOR	machine shop	214	COIN COUNTER AND WRAPPER	clerical
330	CIRCULAR SAWYER, STONE	stonework	251	COIN MACHINE COLLECTOR	business ser.
212	CIVIL ENGINEER	profess. & kin.	370	COIN MACHINE SERVICE REPAIRER	svc. ind. mach.
251	CLAIM ADJUSTER, FIELD	insurance; business	111	COLLECTION CLERK	clerical
-	,	ser.	251	COLLECTOR, OUTSIDE	clerical
11	CLAIM ADJUSTER, INSIDE	insurance	230	COLOR PRINTER OPERATOR	photofinishing
11	CLAIMS CLERK	insurance	111	COLUMNIST/COMMENTATOR	print. & pub.
21	CLAY MODELER	any industry	240	COMPANION	domestic ser.
40	CLEANER, COMMERCIAL OR	any industry	221	COMPOSITOR, TYPESETTER	print. & pub.
10	INSTITUTIONAL	any maabay	230	COMPOUNDER	petrol. refin.
40	CLEANER, EQUIPMENT	any industry	360	COMPRESSED GAS PLANT WORKER	chemical
40	CLEANER, HOSPITAL	medical ser.	332	COMPRESSOR OPERATOR	any industry
40	CLEANER, LABORATORY	any industry	112	COMPUTER KEYBOARD OPERATOR	clerical
	EQUIPMENT		230	COMPUTER OPERATOR,	clerical
41	CLEANER, WINDOW	any industry		MAINFRAME	
10	CLERGY MEMBER	profess. & kin.	111	COMPUTER PROCESSING	clerical
11	CLERK, ADVERTISING SPACE	print. & pub.	110	SCHEDULER	0 0 1 '
11	CLERK, ANIMAL HOSPITAL	medical ser.	112	COMPUTER PROGRAMMER	profess. & kin.
12	CLERK, BILLING	clerical	320	COMPUTER REPAIRER	office machines
11	CLERK, COLLECTION	clerical	111	COMPUTER SECURITY SPECIALIST	profess. & kin.
11	CLERK, CONTRACT, AUTOMOBILE	retail trade	111	COMPUTER SUPPORT ANALYST	profess. & kin.
11	CLERK, COURT	government ser.	351	CONCRETE PAVING MACHINE	construction
11	CLERK, CREDIT	clerical		OPERATOR	
11	CLERK, ELECTION	government ser.	480	CONCRETE STONE FINISHER	concrete prod.
214	CLERK, FILE	clerical	480	CONCRETE VIBRATOR OPERATOR	construction
211	CLERK, GENERAL	clerical	340	CONDUCTOR, ALL RAILS	r.r. trans.
11	CLERK, INVENTORY CONTROL	clerical	213	CONDUCTOR, PASSENGER CAR	r.r. trans.
14	CLERK, SALES	retail trade	370	CONSTRUCTION EQUIPMENT	construction
60	CLERK, SHIPPING	clerical		MECHANIC	
12	CLERK, STATISTICAL	clerical	110	CONSULTANT, EDUCATION	education
11	CLERK, WIRE TRANSFER	financial	230	CONTACT LENS MOLDER	optical goods
12	CLERK-TYPIST	clerical	330	CONTOUR BAND SAW OPERATOR,	machine shop
10	CLINICAL PSYCHOLOGIST	profess. & kin.		VERTICAL	1
30	CLOTH PRINTER	any industry	213	CONTRACTOR	construction

Group No.	Occupation	Industry	Group No.	Occupation	Industry
120	CONTROLS DESIGNER	profess. & kin.	112	CRYPTOGRAPHIC MACHINE	clerical
360	CONVEYOR FEEDER-OFFBEARER	any industry		OPERATOR	
360	CONVEYOR TENDER	any industry	330	CRYSTAL GROWER	comm. equip.
370	CONVEYOR MAINTENANCE	any industry	330	CRYSTAL SLICER	electron. comp.
	MECHANIC		212	CURATOR	museums
360	CONVEYOR SYSTEM OPERATOR	any industry	211	CURRENCY COUNTER	financial
322	COOK	domestic ser.	340	CUSTODIAN	any industry
322	COOK	any industry	360	CUSTODIAN, ATHLETIC EQUIPMENT	amuse. & rec.
322	COOK ASSISTANT	hotel & rest.	211	CUSTODIAN, PROPERTY	government ser.
322	COOK, CHIEF	hotel & rest.	211	CUSTOMER SERVICE CLERK	retail trade
322	COOK, FAST FOOD	hotel & rest.	213	CUSTOMER SERVICE	utilities
322	COOK, PASTRY	hotel & rest.		REPRESENTATIVE	
322	COOK, SPECIALTY	hotel & rest.	212	CUSTOMS BROKER	financial
110	COORDINATOR, SKILL-TRAINING	government ser.	330	CUT-OFF SAW OPERATOR	woodworking
	PROGRAM		330	CUT-OFF SAW OPERATOR, METAL	machine shop
111	COPY READER	print. & pub.	230	CUTTER	photofinishing
111	COPY WRITER	profess. & kin.	330	CUTTER OPERATOR	any industry
112	COPYIST	any industry	230	CUTTER, MACHINE	any industry
480	CORE DRILL OPERATOR	any industry	230	CUTTING MACHINE OPERATOR,	aircraft mfg.
330	COREMAKER	paper goods		AUTOMATED	-
331	COREMAKER, FLOOR	foundry	460	CUTTING MACHINE OPERATOR	textile
490	CORRECTION OFFICER	government ser.	330	CUTTING MACHINE TENDER	any industry
290	COSMETOLOGIST	personal ser.	460	CYLINDER FILLER	chemical
110	COUNSELOR	profess. & kin.	460	CYLINDER PRESS FEEDER	print. & pub.
390	COUNSELOR, CAMP	amuse. & rec.	120	CYTOTECHNOLOGIST	medical ser.
322	COUNTER ATTENDANT, CAFETERIA	hotel & rest.	460	DAIRY PROCESSING EQUIPMENT	dairy products
111	COURT CLERK	government ser.		OPERATOR	• 1
112	COURT REPORTER	clerical	590	DANCER	amuse. & rec.
491	COWPUNCHER	agriculture	111	DATA BASE ADMINISTRATOR	profess. & kin.
360	CRANE FOLLOWER	any industry	380	DATA COMMUNICATIONS	any industry
360	CRANE HOOKER	any industry		INSTALLER	5 5
351	CRANE OPERATOR	any industry	112	DATA ENTRY CLERK	clerical
360	CRATE MAKER	any industry	221	DECAL APPLIER	any industry
111	CREDIT AUTHORIZER	clerical	491	DECKHAND	water trans., fishing
111	CREDIT CLERK	clerical	-		& hunt.
111	CREDIT COUNSELOR	profess. & kin.	331	DECONTAMINATOR, RADIOACTIVE	any industry
460	CREMATOR	personal ser.		MATERIAL	5 5
111	CREW SCHEDULER	air trans.	221	DECORATOR	bakery products
230	CRIMPING MACHINE OPERATOR	any industry	380	DECORATOR, SPECIAL EVENT	any industry
330	CROSSBAND LAYER	millwork-plywood	480	DECORATOR, STREET AND	any industry
460	CRUSHER OPERATOR	concrete prod.	100	BUILDING	any manony
		-	322	DELI CUTTER-SLICER	retail trade

Group No.	Occupation	Industry	Group No.	Occupation	Industry
250	DELIVERER, CAR RENTAL	automotive ser.	221	DISTRESSER	furniture
250	DELIVERER, FLORAL	retail trade	480	DITCH DIGGER	construction
	ARRANGEMENTS		492	DIVER	any industry
213	DELIVERER, NON-DRIVING	clerical	230	DIVIDING MACHINE OPERATOR	bakery products
250	DELIVERER, PIZZA	retail trade	111	DOCUMENT PREPARER,	business ser.
212	DEMONSTRATOR	retail trade		MICROFILMING	
212	DENTAL ASSISTANT	medical ser.	491	DOG CATCHER	government ser.
220	DENTAL HYGIENIST	medical ser.	491	DOG GROOMER	personal ser.
220	DENTAL LABORATORY TECHNICIAN	protective dev.	251	DOG LICENSER	nonprofit org.
220	DENTIST	medical ser.	560	DOLLY PUSHER	radio-tv broad.
490	DEPUTY, COURT	government ser.	390	DOUBLE	motion picture
480	DERRICK WORKER, WELL SERVICE	petrol. & gas	460	DOUGH BRAKE MACHINE OPERATOR	
230	DESIGN PRINTER, BALLOON	rubber goods	322	DOUGH MOLDER, HAND	bakery products
490	DETECTIVE	government ser.	322	DOUGHNUT MAKER	bakery products
390	DETECTIVE, STORE	retail trade	330	DOWEL MACHINE OPERATOR	woodworking
212	DIALYSIS TECHNICIAN	medical ser.	120	DRAFTER, ARCHITECTURAL	profess. & kin.
330	DIE CASTING MACHINE OPERATOR	foundry	120	DRAFTER, ASSISTANT	profess. & kin.
330	DIE CUTTER	any industry	120	DRAFTER, CIVIL	profess. & kin.
120	DIE DESIGNER	machine shop	120	DRAFTER, ELECTRICAL	profess. & kin.
320	DIE MAKER	machine shop	120	DRAFTER, ELECTROMECHANISMS	profess. & kin.
320	DIE SINKER	machine shop		DESIGN	
212	DIETITIAN, CLINICAL	profess. & kin.	120	DRAFTER, LANDSCAPE	profess. & kin.
322	DINING ROOM ATTENDANT	hotel & rest.	120	DRAFTER, MECHANICAL	profess. & kin.
351	DINKEY OPERATOR	any industry	351	DRAGLINE OPERATOR	any industry
221	DIPPER	jewelry-silver.	380	DRAPERY HANGER	retail trade
331	DIPPER	any industry	110	DRAWINGS CHECKER, ENGINEERING	profess. & kin.
110	DIRECTOR, FUNDRAISING	nonprofit org.	221	DRESSMAKER	any industry
110	DIRECTOR, MOTION PICTURE	motion picture	230	DRIER OPERATOR	food prep., nec
212	DIRECTOR, RECREATION CENTER	social ser.	331	DRIER OPERATOR	chemical
110	DIRECTOR, REGULATORY AGENCY	government ser.	330	DRILL PRESS OPERATOR	machine shop
110	DIRECTOR, RESEARCH AND DEVELOPMENT	any industry	330	DRILL PRESS OPERATOR, NUMERICAL CONTROL	machine shop
110	DIRECTOR, SERVICE	retail trade	321	DRILLER, HAND	any industry
210	DIRECTOR, SOCIAL	hotel & rest.	240	DRIVE-IN THEATER ATTENDANT	amuse. & rec.
112	DIRECTORY ASSISTANCE OPERATOR	tel. & tel.	251 350	DRIVER'S LICENSE EXAMINER DRIVER, NEWSPAPER DELIVERY	government ser. wholesale tr.
322	DISHWASHER, HAND OR MACHINE	hotel & rest.	430	DROPHAMMER OPERATOR	aircraft mfg.
111	DISPATCHER, MOTOR VEHICLE	clerical	430	DRUM STRAIGHTENER	any industry
380	DISPLAY MAKER	fabrication, nec	340	DRY CLEANER	laundry & rel.
330	DISPLAY SCREEN FABRICATOR	electron. comp.	331	DRY-PRESS OPERATOR	brick & tile
360	DISPLAYER, MERCHANDISE	retail trade	380	DRY WALL APPLICATOR	construction
460	DISTILLERY WORKER, GENERAL	beverage	481	DUCT INSTALLER	construction

Group No.	Occupation	Industry	Group No.	Occupation	Industry
330	DYNAMITE PACKING MACHINE	chemical	482	ELEVATOR CONSTRUCTOR	construction
	OPERATOR		380	ELEVATOR EXAMINER AND	any industry
212	ECHOCARDIOGRAPH TECHNICIAN	medical ser.	160	ADJUSTER	
110	EDITOR, MANAGING, NEWSPAPER	print. & pub.	460	ELEVATOR OPERATOR, FREIGHT	any industry
111	EDITOR, NEWSPAPER	print. & pub.	380	ELEVATOR REPAIRER	any industry
111	EDITOR, PUBLICATIONS	print. & pub.	111	ELIGIBILITY WORKER	government ser.
112	EDITORIAL WRITER	print. & pub.	420	EMBALMER	personal ser.
221	EGG CANDLER	any industry	331	EMBOSSER	any industry
380	ELECTRIC METER INSTALLER	utilities	230	EMBOSSING PRESS OPERATOR	print. & pub.
221	ELECTRIC MOTOR ASSEMBLER	elec. equip.	460	EMERGENCY MEDICAL TECHNICIAN	medical ser.
320	ELECTRIC MOTOR CONTROL UNIT	elec. equip.	111	EMPLOYEE RELATIONS SPECIALIST	profess. & kin.
	ASSEMBLER		111	EMPLOYMENT INTERVIEWER	profess. & kin.
320	ELECTRIC SIGN ASSEMBLER	fabrication, nec	320	ENGINE LATHE OPERATOR	machine shop
212	ELECTRICAL ENGINEER	profess. & kin.	213	ENGINEER, AERONAUTICAL TEST	aircraft mfg.
212	ELECTRICAL TECHNICIAN	profess. & kin.	111	ENGINEER, AERONAUTICAL DESIGN	aircraft mfg.
221	ELECTRICAL APPLIANCE REPAIRER,	any industry	212	ENGINEER, AGRICULTURAL	profess. & kin.
• - •	SMALL		212	ENGINEER, AUTOMOTIVE	auto. mfg.
370	ELECTRICAL APPLIANCE SERVICER	any industry	111	ENGINEER, BIOMEDICAL	profess. & kin.
460	ELECTRICAL APPLIANCE UNCRATER	any industry	212	ENGINEER, CHEMICAL	profess. & kin.
221	ELECTRICAL INSTRUMENT	any industry	212	ENGINEER, CIVIL	profess. & kin.
• • • •	REPAIRER		111	ENGINEER, ELECTRO-OPTICAL	profess. & kin.
380	ELECTRICIAN	construction	212	ENGINEER, ELECTRONICS DESIGN	profess. & kin.
380	ELECTRICIAN	ship-boat mfg.	212	ENGINEER, FACTORY LAY-OUT	profess. & kin.
380	ELECTRICIAN APPRENTICE	construction	213	ENGINEER, FIELD SERVICE	profess. & kin.
380	ELECTRICIAN HELPER	any industry	212	ENGINEER, MECHANICAL	profess. & kin.
370	ELECTRICIAN, AUTOMOTIVE	automotive ser.	111	ENGINEER, NUCLEAR	profess. & kin.
380	ELECTRICIAN, MAINTENANCE	any industry	111	ENGINEER, PACKAGING	profess. & kin.
380	ELECTRICIAN, POWERHOUSE	utilities	111	ENGINEER, POWER DISTRIBUTION	utilities
460	ELECTROLESS PLATER, PRINTED	electron. comp.	111	ENGINEER, PRODUCT SAFETY	profess. & kin.
	CIRCUIT BOARD PANELS		212	ENGINEER, RAILROAD	profess. & kin.
290	ELECTROLOGIST	personal ser.	213	ENGINEER, SOILS	profess. & kin.
220	ELECTROMECHANICAL TECHNICIAN	inst. & app.	320	ENGRAVER, HAND, HARD METALS	engraving
320	ELECTROMEDICAL EQUIPMENT	any industry	120	ENGRAVER, HAND, SOFT METALS	engraving; jewelry
	REPAIRER		230	ENGRAVER, MACHINE	engraving
212	ELECTROMYOGRAPHIC TECHNICIAN	medical ser.	213	ENVIRONMENTAL ANALYST	profess. & kin.
221	ELECTRONIC COMPONENT PROCESSOR	electron. comp.	111	EQUAL OPPORTUNITY REPRESENTATIVE	government ser.
221	ELECTRONICS ASSEMBLER	comm. equip.	340	EQUIPMENT CLEANER	any industry
212	ELECTRONICS TECHNICIAN	profess. & kin.	370	EQUIPMENT INSTALLER, VEHICLES	any industry
221	ELECTRONICS TESTER	comm. equip.	111	ESCROW OFFICER	profess. & kin.
212	ELECTRONICS DESIGN ENGINEER	profess. & kin.	111	ESTATE PLANNER	insurance
351	ELEVATING GRADER OPERATOR	construction	213	ESTIMATOR/CRUISER	forestry

Group No.	Occupation	Industry	Group No.	Occupation	Industry
221	ETCHED CIRCUIT PROCESSOR	electron. comp.	330	FIBERGLASS MACHINE OPERATOR	
221	ETCHER	engraving	213	FIELD ENGINEER	radio-tv broad.
320	ETCHER, HAND	print. & pub.	214	FILE CLERK	clerical
370	EVAPORATIVE COOLER INSTALLER	any industry	221	FILLER	tex. prod., nec
111	EXAMINER	government ser.	230	FILM DEVELOPER	motion picture
390	EXERCISE PHYSIOLOGIST	medical ser.	230	FILM OR VIDEOTAPE EDITOR	motion picture
491	EXERCISER, HORSE	amuse. & rec.	230	FILM PRINTER	motion picture
380	EXHIBIT BUILDER	museums	214	FILM OR TAPE LIBRARIAN	clerical
111	EXPEDITER	clerical	331	FILTER OPERATOR	any industry
360	EXPEDITER, MATERIAL	clerical	460	FILTER PRESS OPERATOR	any industry
380	EXPERIMENTAL AIRCRAFT	aircraft mfg.	320	FINAL ASSEMBLER	office machines
	MECHANIC	C	110	FINANCIAL PLANNER	profess. & kin.
213	EXTERMINATOR	business ser.	110	FINANCIAL AIDS OFFICER	education
480	EXTERMINATOR, TERMITE	business ser.	120	FINGERNAIL FORMER	personal ser.
213	EXTRA, ACTOR	amuse. & rec.;	490	FIRE FIGHTER	any industry
	2	motion picture	490	FIRE LOOKOUT	forestry
330	EXTRUDER OPERATOR	rubber goods	490	FIRE RANGER	forestry
220	EYEGLASS LENS CUTTER	optical goods	320	FIRE EXTINGUISHER REPAIRER	any industry
230	FABRIC STRETCHER	furniture	332	FIRER, HIGH PRESSURE	any industry
320	FABRICATING MACHINE OPERATOR,	any industry	320	FIRESETTER	elec. equip.
520	METAL	any moustry	360	FIREWORKS DISPLAY SPECIALIST	any industry
221	FABRICATOR, FOAM RUBBER	any industry	490	FISH AND GAME WARDEN	government ser.
330	FABRICATOR/ASSEMBLER, METAL	any industry	322	FISH CLEANER	can. & preserv.
550	PRODUCTS	any moustry	491	FISH FARMER	fishing & hunt.
210	FACULTY MEMBER, COLLEGE OR	education	491	FISH HATCHERY LABORER	fishing & hunt.
210	UNIVERSITY	education	491	FISHER, DIVING	fishing & hunt.
492	FALLER	lagging	492	FISHER, LINE	fishing & hunt.
492 492		logging	491	FISHER, NET	
492 491	FALLER, TIMBER	logging agriculture	491 481	FISHER, NET	fishing & hunt.
	FARM LABORER, GENERAL		401	FILLER	construction, pipe
351	FARM MACHINE OPERATOR	agriculture	420		lines
491	FARMER, GENERAL	agriculture	430	FITTER, METAL	any industry
491	FARMWORKER, FRUIT	agriculture	320	FIXTURE REPAIRER-FABRICATOR	any industry
491	FARMWORKER, VEGETABLE	agriculture	230	FLATWORK FINISHER	laundry & rel.
120	FASHION ARTIST	retail trade	322	FLIGHT ATTENDANT	air trans.
251	FASHION COORDINATOR	retail trade	212	FLIGHT ENGINEER	air trans.
212	FASHION DESIGNER	profess. & kin.	211	FLIGHT INFORMATION EXPEDITER	air trans.
322	FAST FOODS WORKER	hotel & rest.	380	FLOOR LAYER	construction
460	FEEDER	print. & pub.	480	FLOOR FINISHER HELPER	construction
331	FELTING MACHINE OPERATOR	tex. prod., nec	221	FLORIST	retail trade
481	FENCE ERECTOR	construction	460	FLOUR BLENDER	grain-feed mills
330	FIBERGLASS LAMINATOR	ship-boat	230	FOLDER SEAMER, AUTOMATIC	any industry
		mfg.;vehicles nec.	230	FOLDING MACHINE OPERATOR	print. & pub.

Group No.	Occupation	Industry	Group No.	Occupation	Industry
330	FOLDING MACHINE OPERATOR	paper goods	560	GARBAGE COLLECTOR, MANUAL	motor trans.
330	FOLDING MACHINE OPERATOR	textile	491	GARDENER	domestic ser.
322	FOOD ASSEMBLER, KITCHEN	hotel & rest.	221	GARMENT CUTTER, HAND	any industry
492	FOREST WORKER	forestry	321	GARMENT CUTTER, MACHINE	any industry
490	FOREST FIRE FIGHTER	forestry	332	GAS COMPRESSOR OPERATOR	any industry
213	FORESTER	profess. & kin.	332	GAS ENGINE OPERATOR	any industry
491	FORESTER AIDE	forestry	320	GAS METER ADJUSTER	utilities
460	FORGE HELPER	forging	212	GATE AGENT	air trans.
430	FORGING PRESS OPERATOR	forging	213	GEOLOGIST	profess. & kin.
351	FORKLIFT OPERATOR	any industry	221	GIFT WRAPPER	retail trade
481	FORM BUILDER	construction	221	GILDER, METAL LEAF	any industry
480	FORM STRIPPER	construction	230	GINNER	agriculture
480	FORM TAMPER	construction	420	GLASS CUTTER	any industry
480	FORM TAMPER OPERATOR	construction	221	GLASS FINISHER	glass products
320	FORMER, HAND	any industry	370	GLASS INSTALLER	automotive ser.
331	FORMING MACHINE OPERATOR	glass mfg.	370	GLASS INSTALLER	woodworking
111	FORMS ANALYST	profess. & kin.	321	GLASS POLISHER	glass mfg.
331	FOURDRINIER MACHINE OPERATOR	paper & pulp	380	GLAZIER	construction
470	FRAME REPAIRER	furniture	330	GLUER	woodworking
370	FRAME STRAIGHTENER	motor-bicycles	251	GOLF COURSE RANGER	amuse. & rec.
230	FREEZER OPERATOR	dairy products	340	GOLF RANGE ATTENDANT	amuse. & rec.
491	FRUIT PICKER	agriculture	360	GRAINER, MACHINE	any industry
360	FRUIT BUYING INSPECTOR	can. & preserv.	110	GRANT COORDINATOR	profess. & kin.
331	FRUIT GRADER OPERATOR	agriculture	230	GRANULATOR OPERATOR	sugar & conf.
332	FUEL ATTENDANT, PLANT	any industry	120	GRAPHIC DESIGNER	profess. & kin.
480	FUMIGATOR	business ser.	480	GRAVE DIGGER	real estate
212	FUND RAISER	nonprofit org.	340	GREASER	any industry
340	FUNERAL ATTENDANT	personal ser.	460	GREEN CHAIN OFFBEARER	millwork-plywood
560	FUNERAL CAR CHAUFFEUR	personal ser.	331	GRINDER OPERATOR	grain-feed mills
212	FUNERAL DIRECTOR	personal ser.	320	GRINDER OPERATOR, PRECISION	machine shop
341	FURNACE CLEANER	any industry	330	GRINDER SET-UP OPERATOR,	machine shop
380	FURNACE INSTALLER AND	any industry;		CENTERLESS	1
	REPAIRER, HOT AIR	utilities	330	GRINDER, BENCH	any industry
321	FURNITURE ASSEMBLER	furniture	321	GRINDER, DISK, BELT OR WHEEL	any industry
470	FURNITURE ASSEMBLER/HEAVY	woodworking	330	GRINDER, TOOL	any industry
360	FURNITURE CRATER	any industry	460	GRINDER-CHIPPER, ROUGH	any industry
221	FURNITURE FINISHER	woodworking	330	GRINDING MACHINE TENDER	machine shop
560	FURNITURE MOVER	motor trans.	482	GRIP	amuse. & rec.
321	FURNITURE UPHOLSTERER	any industry	482	GRIP, PROPERTY HANDLER	motion picture
221	FURRIER	fur goods	482	GRIP, STAGE CONSTRUCTION	motion picture
370	GARAGE SERVICER,	any industry	214	GROCERY CHECKER	retail trade
510	TRANSPORTATION EQUIPMENT	any maasay	230	GROMMET MACHINE OPERATOR	any industry

Group No.	Occupation	Industry	Group No.	Occupation	Industry
491	GROOM	any industry	110	IMPORT-EXPORT AGENT	any industry
491	GROUNDSKEEPER	any industry	111	INDUSTRIAL ENGINEER	profess. & kin.
490	GROUP SUPERVISOR	government ser.	213	INDUSTRIAL HYGIENIST	profess. & kin.
490	GUARD, CORRECTIONAL FACILITY	government ser.	111	INFORMATION CLERK	clerical
240	GUARD, SCHOOL-CROSSING	government ser.	111	INFORMATION AND REFERRAL AIDE	government ser.
590	GUIDE, ALPINE	personal ser.	230	INJECTION WAX MOLDER	foundry; jewelry-
213	GUIDE, ESTABLISHMENT	any industry			silver.
491	GUIDE, HUNTING AND FISHING	amuse. & rec.	230	INJECTION MOLDING MACHINE	plastic prod.
220	GUNSMITH	any industry		TENDER	
290	HAIR STYLIST	personal ser.	330	INKER	print. & pub.
380	HANDYPERSON	any industry	120	INSPECTOR	jewelry-silver.
110	HARBOR MASTER	government ser.	221	INSPECTOR	plastic prod.
380	HARDWOOD FLOOR LAYER	construction	221	INSPECTOR	pharmaceut.
320	HARNESS MAKER	leather prod.	213	INSPECTOR, AGRICULTURAL	government ser.
230	HAT AND CAP SEWER	hat & cap		COMMODITIES	
110	HAZARDOUS WASTE MANAGEMENT	government ser.	213	INSPECTOR, AIR CARRIER	government ser.
	SPECIALIST		213	INSPECTOR, AIRPLANE	air trans.
110	HEARING OFFICER	government ser.	221	INSPECTOR, CANNED FOOD	can. & preserv.
112	HEARING REPORTER	clerical		RECONDITIONING	
330	HEAT TREATER	heat treating	320	INSPECTOR, EDDY CURRENT	steel & rel.
430	HEATER	forging	221	INSPECTOR, ELECTRONICS	comm. equip.
380	HEATING AND AIR CONDITIONING	construction	221	INSPECTOR, FABRIC	any industry
	INSTALLER-SERVICER		251	INSPECTOR, FOOD AND DRUG	government ser.
230	HEMMER, AUTOMATIC	tex. prod., nec	321	INSPECTOR, FURNITURE	furniture
420	HIDE PULLER	meat products	221	INSPECTOR, GARMENT	any industry
480	HOD CARRIER	construction	221	INSPECTOR, GLASS	any industry
351	HOISTING ENGINEER	any industry	251	INSPECTOR, HEALTH CARE	government ser.
111	HOLTER SCANNING TECHNICIAN	medical ser.	100	FACILITIES	1 1 0 4 1
340	HOME ATTENDANT	personal ser.	120	INSPECTOR, JEWEL	clock & watch
491	HORSESHOER	agriculture	213	INSPECTOR, METAL FABRICATING	any industry
213	HORTICULTURIST	profess. & kin.	221	INSPECTOR, METAL FINISH	any industry
111	HOSPITAL ADMITTING CLERK	medical ser.	221	INSPECTOR, PRINTED CIRCUIT	electron. comp.
240	HOST/HOSTESS	any industry		BOARDS	
211	HOTEL CLERK	hotel & rest.	251	INSPECTOR, QUALITY ASSURANCE	government ser.
470	HOUSEHOLD APPLIANCE INSTALLER	any industry	251	INSPECTOR, TRANSPORTATION	motor trans.
340	HOUSEKEEPER, DOMESTIC	domestic ser.; hotel & rest.	213 390	INSPECTOR, WEIGH STATION	government ser. amuse. & rec.
332	HYDROELECTRIC STATION	a rest. utilities	390 251	INSTRUCTOR, AEROBICS INSTRUCTOR, DRIVING	education
332	OPERATOR	unnues	251 390	INSTRUCTOR, DRIVING INSTRUCTOR, PHYSICAL	education
331	ICE CREAM MAKER	dairy products		EDUCATION	
460	ICE CUTTER	food prep., nec	390	INSTRUCTOR, SPORTS	amuse. & rec.
120	ILLUSTRATOR	profess. & kin.	270		
120		Protoss. & Kin.			

Group No.	Occupation	Industry	Group No.	Occupation	Industry
214	INSTRUCTOR, VOCATIONAL	education	360	KILN WORKER	pottery & porc.
	TRAINING		322	KITCHEN HELPER	hotel & rest.
320	INSTRUMENT REPAIRER	any industry	230	KNITTING MACHINE OPERATOR	knitting
220	INSTRUMENT MAKER AND	any industry	330	KNITTING MACHINE OPERATOR	knitting
	REPAIRER		492	KNOT BUMPER	logging
380	INSULATION WORKER	construction	212	LABORATORY ASSISTANT, BLOOD	medical ser.
221	INTEGRATED CIRCUIT FABRICATOR	electron. comp.		AND PLASMA	
120	INTEGRATED CIRCUIT LAYOUT	profess. & kin.	340	LABORATORY EQUIPMENT CLEANER	any industry
	DESIGNER		220	LABORATORY TESTER	any industry
214	INTERIOR DESIGNER	profess. & kin.	460	LABORER	meat products
220	INTERNIST	medical ser.	460	LABORER	pharmaceut.
210	INTERPRETER	profess. & kin.	460	LABORER, CHEMICAL PROCESSING	chemical
212	INTERPRETER, DEAF	profess. & kin.	480	LABORER, CONCRETE PAVING	construction
111	INTERVIEWER, EMPLOYMENT	profess. & kin.	480	LABORER, CONCRETE MIXING	construction
212	INTERVIEWER/SURVEY WORKER	clerical		PLANT	
360	INVENTORY CLERK	clerical	480	LABORER, CONSTRUCTION	construction
251	INVESTIGATOR	government ser.	491	LABORER, FARM	agriculture
111	INVESTIGATOR, CREDIT FRAUD	retail trade	360	LABORER, GENERAL	plastic prod.
251	INVESTIGATOR, INSIDE/OUTSIDE	business ser.	460	LABORER, GENERAL	machine shop
490	INVESTIGATOR, VICE	government ser.	460	LABORER, GENERAL	nonfer. metal
110	INVESTMENT ANALYST	financial	460	LABORER, GENERAL	steel & rel.
111	INVOICE CONTROL CLERK	clerical	460	LABORER, MILL	woodworking
491	IRRIGATOR, GRAVITY FLOW	agriculture	460	LABORER, PETROLEUM REFINERY	petrol. refin.
491	IRRIGATOR, SPRINKLING SYSTEM	agriculture	480	LABORER, ROAD	construction
480	JACKHAMMER OPERATOR	mine & quarry	460	LABORER, SHIPYARD	ship-boat mfg.
490	JAILER	government ser.	480	LABORER, WRECKING & SALVAGING	construction
340	JANITOR	any industry	460	LABORER, YARD	paper & pulp
120	JEWELER	jewelry-silver.	331	LACQUERER	plastic prod.
320	JIG MAKER	machine shop	330	LAMINATING MACHINE FEEDER	wood prod., nec.
330	JIG-BORING MACHINE OPERATOR,	machine shop	330	LAMINATING MACHINE OPERATOR	furniture
220	NUMERICAL CONTROL		430	LAMINATING PRESS OPERATOR	plastic prod.
330	JIGSAW OPERATOR	woodworking	330	LAMINATOR	ship-boat
212	JOB ANALYST	profess. & kin.			mfg.;vehicles nec.
110	JOB DEVELOPMENT SPECIALIST	profess. & kin.	213	LAND SURVEYOR	profess. & kin.
320	JOB SETTER, HONING	machine shop	491	LANDSCAPE GARDENER	agriculture
590	JOCKEY	amuse. & rec.	370	LASER TECHNICIAN/REPAIRER	electron. comp.
380	JOINER	ship-boat mfg.	230	LASER BEAM MACHINE OPERATOR	welding
330	JOINTER OPERATOR	woodworking	230	LASER BEAM TRIM OPERATOR	electron. comp.
110 221	JUDGE KEY CUTTER	government ser. any industry	330	LATHE OPERATOR, NUMERICAL CONTROL	machine shop
230	KICK PRESS OPERATOR	any industry	330	LATHE OPERATOR, SWING-TYPE	woodworking
230	KILN OPERATOR	woodworking	330	LATHE OPERATOR, WOOD-TURNING	woodworking

Group No.	Occupation	Industry	Group No.	Occupation	Industry
460	LATHE SPOTTER	millwork-plywood	370	LOOM FIXER	narrow fabrics
330	LATHE TENDER	machine shop	340	LUBRICATION SERVICER	automotive ser.
380	LATHER, METAL OR WOOD	construction	320	LUGGAGE REPAIRER	any industry
340	LAUNDERER, HAND	laundry & rel.	221	LUMBER GRADER	woodworking
491	LAWN SERVICE WORKER	agriculture	460	LUMBER HANDLER/STACKER	woodworking
110	LAWYER	profess. & kin.	360	LUMBER SORTER	woodworking
320	LAY-OUT MAKER	sheet metal; any	350	LUNCH TRUCK DRIVER	hotel & rest.
		industry	370	MACHINE ASSEMBLER/BUILDER	machinery mfg.
120	LAY-OUT TECHNICIAN	optical goods	360	MACHINE FEEDER	any industry
491	LEAD PONY RIDER, RACETRACK	amuse. & rec.	460	MACHINE FEEDER, RAW STOCK	tex. prod., nec
221	LEATHER CUTTER	leather prod.	330	MACHINE MOLDER	foundry
230	LEATHER GARMENT PRESSER	laundry & rel.	230	MACHINE OPERATOR, ROOFING	build. mat., nec
320	LEATHER WORKER	leather prod.		MATERIALS	
110	LEGISLATIVE ASSISTANT	government ser.	320	MACHINE SET-UP OPERATOR	machine shop
220	LENS EXAMINER	optical goods	221	MACHINE TESTER	office machines
230	LENS HARDENER	optical goods	320	MACHINIST	machine shop
320	LENS MOUNTER, OPTICAL	optical goods	320	MACHINIST, AUTOMOTIVE	automotive ser.
220	LENS POLISHER, HAND	optical goods	370	MACHINIST, BENCH	machinery mfg.
220	LENS FABRICATING MACHINE TENDER	optical goods	112	MAGNETIC TAPE COMPOSER OPERATOR	print. & pub.
214	LIBRARIAN	library	211	MAIL CLERK	clerical
212	LIBRARIAN, CATALOG	library	230	MAILING MACHINE OPERATOR	print. & pub.
214	LIBRARY ASSISTANT	library	370	MAINTENANCE MACHINIST	machine shop
211	LICENSE CLERK	government ser.	470	MAINTENANCE MECHANIC	any industry
590	LIFEGUARD	amuse. & rec.	380	MAINTENANCE REPAIRER, BUILDING	any industry
250	LIGHT RAIL CAR OPERATOR	r.r. trans.	470	MAINTENANCE REPAIRER, INDUS.	any industry
341	LIGHT FIXTURE SERVICER	any industry		MACHINES & PLANTS	
482	LINE INSTALLER-REPAIRER	tel. & tel.; utilities	480	MAINTENANCE WORKER,	government ser.
341	LINE SERVICE ATTENDANT	air trans.		MUNICIPAL	
213	LINE WALKER	petrol. & gas	311	MAKE-UP ARTIST, BODY	amuse. & rec.
360	LINEN ROOM CLERK	hotel & rest.	110	MANAGEMENT ANALYST	profess. & kin.
110	LITERARY AGENT	business ser.	212	MANAGEMENT TRAINEE	any industry
491	LIVESTOCK YARD ATTENDANT	any industry	212	MANAGER, ADVERTISING AGENCY	business ser.
110	LOAN OFFICER	financial	212	MANAGER, APARTMENT HOUSE	real estate
212	LOCATION MANAGER	motion picture	213	MANAGER, AUTOMOBILE SERVICE	retail trade
120	LOCK ASSEMBLER	cutlery-hrdwr.		STATION	
221	LOCKSMITH	any industry	110	MANAGER, BENEFITS	profess. & kin.
250	LOCOMOTIVE ENGINEER	r.r. trans.	110	MANAGER, BUS TRANSPORTATION	motor trans.
213	LOG SCALER	logging	212	MANAGER, CONVENTION	hotel & rest.
491	LOG SORTER	logging	212	MANAGER, CUSTOMER SERVICES	business ser.
492	LOGGER, ALL-ROUND	logging	213	MANAGER, DAIRY FARM	agriculture
351	LOGGING TRACTOR OPERATOR	forestry	110	MANAGER, DATA PROCESSING	profess. & kin.

Group No.	Occupation	Industry	Group No.	Occupation	Industry
110	MANAGER, DEPARTMENT	any industry	481	MECHANIC, POWERHOUSE	utilities
212	MANAGER, FAST FOOD SERVICES	retail trade	380	MECHANIC, RADAR	any industry
110	MANAGER, HOTEL OR MOTEL	hotel & rest.	370	MECHANIC, RADIATOR	automotive ser.
212	MANAGER, HOTEL RECREATIONAL	amuse. & rec.	481	MECHANIC, REFRIGERATION	svc. ind. mach.
	FACILITIES		370	MECHANIC, ROCKET ENGINE	aircraft mfg.
212	MANAGER, LABOR RELATIONS	profess. & kin.		COMPONENT	
212	MANAGER, MOBILE HOME PARK	real estate	470	MECHANIC, SAFE AND VAULT	business ser.
213	MANAGER, NURSERY	agriculture	370	MECHANIC, SMALL ENGINE	any industry
111	MANAGER, OFFICE	any industry	370	MECHANIC, TRACTOR	automotive ser.
212	MANAGER, PARTS	retail trade	370	MECHANIC, TRANSMISSION	automotive ser.
111	MANAGER, PERSONNEL	profess. & kin.	370	MECHANIC, TUNE-UP	automotive ser.
213	MANAGER, PROPERTY	real estate	214	MEDIA SPECIALIST, SCHOOL	library
212	MANAGER, QUALITY CONTROL	profess. & kin.		LIBRARY	
212	MANAGER, RETAIL STORE	retail trade	212	MEDICAL ASSISTANT, OFFICE	medical ser.
212	MANAGER, STAGE	amuse. & rec.	220	MEDICAL LABORATORY	medical ser.
212	MANAGER, THEATER	amuse. & rec.		TECHNOLOGIST	
110	MANAGER, TRAFFIC	air trans.; any	470	MEDICAL EQUIPMENT REPAIRER	protective dev.
		industry	212	MEDICAL LABORATORY	medical ser.
212	MANAGER, VEHICLE LEASING AND	automotive ser.		TECHNICIAN	
	RENTAL		211	MEDICAL RECORD CLERK	medical ser.
212	MANAGER, WAREHOUSE	any industry	321	MELTER	jewelry-silver.
120	MANICURIST	personal ser.	340	MENTAL RETARDATION AIDE,	medical ser.
330	MARBLE POLISHER, MACHINE	stonework		INSTITUTION	
481	MARBLE SETTER	construction	213	MESSENGER, NON-DRIVING	clerical
480	MARBLE SETTER HELPER	construction	430	METAL FABRICATOR	any industry
211	MARKER	retail trade	321	METAL GRINDER AND FINISHER	any industry
111	MARKET RESEARCH ANALYST	profess. & kin.	321	METAL SPRAYER, PRODUCTION	any industry
221	MASKER, PARTS	any industry	331	METAL CLEANER, IMMERSION	any industry
311 212	MASSEUR/MASSEUSE MASTER CONTROL OPERATOR	personal ser. radio-tv broad.	230	METALLIZATION EQUIPMENT	comm. equip.
212		wood prod., nec	212	TENDER, SEMICONDUCTORS METALLURGICAL TESTER	profess. & kin.
360	MAT CUTTER, PICTURE FRAMES	clerical	212	METALLORGICAL TESTER METER READER	utilities
360 460	MATERIAL EXPEDITER		320		
460 321	MATERIAL STACKER	any industry furniture	320 220	METER REPAIRER	any industry
321	MATTRESS MAKER	hotel & rest.	220	MICROELECTRONICS TECHNICIAN	electron. comp. business ser.
	MEAT CARVER, DISPLAY		230	MICROFILM PROCESSOR	
322 322	MEAT CLERK	retail trade	491	MICROPHONE BOOM OPERATOR	motion picture
	MEAT CUTTER	retail trade		MILKER, MACHINE	agriculture
331	MEAT GRINDER	meat products	331	MILL OPERATOR	any industry
380 370	MECHANIC, AIRCRAFT	aircraft mfg.	320	MILLING MACHINE OPERATOR,	machine shop
	MECHANIC, AUTOMOBILE	automotive ser.	401	NUMERICAL CONTROL	any in du-t
470 370	MECHANIC, DIESEL	any industry	481	MILLWRIGHT	any industry
370	MECHANIC, FRONT-END	automotive ser.	480	MILLWRIGHT HELPER	any industry

Group No.	Occupation	Industry	Group No.	Occupation	Industry
213	MINE INSPECTOR	mine & quarry	380	MUSEUM PREPARATOR	museums
560	MINER	mine & quarry	220	MUSICIAN, INSTRUMENTAL	amuse. & rec.
560	MINER HELPER	mine & quarry	330	NAILING MACHINE OPERATOR	any industry
221	MINIATURE SET CONSTRUCTOR	motion picture	111	NAVIGATOR	air trans.
460	MIXER	paint & varnish	360	NEWS GATHERING TECHNICIAN	radio-tv broad.
460	MIXER, CLAY	brick & tile	330	NIBBLER OPERATOR	any industry
480	MIXER, CONCRETE	construction	111	NIGHT AUDITOR	hotel & rest.
460	MIXER, DOUGH	bakery products	460	NITROGLYCERIN DISTRIBUTOR	chemical
460	MIXER, FLOUR	bakery products	310	NUCLEAR MEDICINE TECHNOLOGIST	medical ser.
480	MIXER, MORTAR	construction	330	NUMERICAL CONTROL MACHINE	machine shop
221	MIXER, PAINT (HAND)	any industry		OPERATOR	_
460	MIXER, PAINT (MACHINE)	any industry	340	NURSE AIDE	medical ser.
331	MIXER, SAND (MACHINE)	foundry	220	NURSE ANESTHETIST	medical ser.
331	MIXING MACHINE OPERATOR	food prep., nec	311	NURSE, GENERAL DUTY	medical ser.
460	MIXING MACHINE OPERATOR	any industry	311	NURSE, LICENSED VOCATIONAL	medical ser.
380	MOBILE HOME ASSEMBLER	mfd. bldgs.	311	NURSE, PRIVATE DUTY	medical ser.
212	MOBILE HOME PARK MANAGER	real estate	212	NURSE, SCHOOL	medical ser.
240	MODEL	garment	311	NURSE-MIDWIFE	medical ser.
221	MODEL MAKER	any industry	460	NUT ROASTER	can. & preserv.
240	MODEL, ARTISTS'	any industry	212	OCCUPATIONAL ANALYST	profess. & kin.
213	MODEL, PHOTOGRAPHERS'	any industry	311	OCCUPATIONAL THERAPIST	medical ser.
321	MOLD REPAIRER	any industry	340	OCCUPATIONAL THERAPY AIDE	medical ser.
221	MOLD AND MODEL MAKER,	concrete prod.	213	OCCUPATIONAL SAFETY AND	government ser.
	PLASTER	-		HEALTH INSPECTOR	-
330	MOLDER	aircraft mfg.	211	OFFICE CLERK, GENERAL	clerical
420	MOLDER, HAND	brick & tile	320	OFFICE MACHINE SERVICER	any industry
320	MOLDER, PATTERN	foundry	330	OFFSET PRESS HELPER	print. & pub.
230	MOLDING MACHINE TENDER, COMPRESSION	plastic prod.	230	OFFSET DUPLICATING MACHINE OPERATOR	clerical
340	MORGUE ATTENDANT	medical ser.	230	OFFSET PRESS OPERATOR	print. & pub.
230	MOTION PICTURE PROJECTIONIST	amuse. & rec.	480	OIL WELL DRILLER	petrol. & gas
351	MOTOR-GRADER OPERATOR	construction	340	OILER	any industry
351	MOTORBOAT OPERATOR	any industry	332	OPERATING ENGINEER	any industry
370	MOTORCYCLE ASSEMBLER	motor-bicycles	332	OPERATING ENGINEER,	any industry
250	MOTORCYCLE DRIVER, DELIVERY	retail trade		REFRIGERATION	5 5
490	MOTORCYCLE POLICE OFFICER	government ser.	111	OPTICAL ENGINEER	profess. & kin.
370	MOTORCYCLE REPAIRER	automotive ser.	220	OPTICIAN, DISPENSING	optical goods
120	MOUNTER, HAND	photofinishing	220	OPTICIAN, LENS GRINDER	optical goods
310	MRI TECHNOLOGIST	medical ser.	220	OPTOMETRIST	medical ser.
370	MUFFLER INSTALLER	automotive ser.	491	ORCHARD SPRAYER, HAND	agriculture
460	MUNITIONS HANDLER	ordnance	360	ORDER CHECKER	clerical
212	MUSEUM ATTENDANT & GUIDE	museums	111	ORDER CLERK	clerical

Group No.	Occupation	Industry	Group No.	Occupation	Industry
214	ORDER CLERK	clerical	240	PARKING LOT ATTENDANT, BOOTH	automotive serv.
214	ORDER FILLER, CATALOG SALES	retail trade	214	PARKING LOT ATTENDANT	automotive ser.
460	ORDERLY	medical ser.	490	PAROLE OFFICER	profess. & kin.
481	ORNAMENTAL IRON WORKER	construction	214	PARTS CLERK	clerical
120	ORTHODONTIC TECHNICIAN	protective dev.	214	PARTS ORDER AND STOCK CLERK	clerical
320	ORTHOTICS TECHNICIAN	protective dev.	460	PASTEURIZER	dairy products
310	ORTHOTIST	medical ser.	230	PATTERN-PUNCHING MACHINE	tex. prod., nec
331	OVEN TENDER	bakery products		OPERATOR	
351	OVERHEAD CRANE OPERATOR	any industry	320	PATTERNMAKER, ALL-AROUND	foundry
31	OXIDIZED FINISH PLATER	any industry	320	PATTERNMAKER, METAL	foundry
221	OXIDIZER	jewelry-silver.	320	PATTERNMAKER, WOOD	foundry
330	PACKAGE SEALER, MACHINE	any industry	221	PEELER, HAND	can. & preserv.
330	PACKAGER, MACHINE	any industry	230	PEELER, MACHINE	can. & preserv.
360	PACKER, AGRICULTURAL PRODUCE	agriculture	320	PERCUSSION INSTRUMENT	any industry
360	PACKER, HAND	any industry		REPAIRER	
380	PAINTER	construction	310	PERFUSIONIST	medical ser.
-80	PAINTER HELPER	construction	390	PERSONAL TRAINER	amuse. & rec.
21	PAINTER, AIRBRUSH	any industry	111	PERSONNEL RECORDS CLERK	clerical
-82	PAINTER, BRIDGE, STRUCTURAL	construction	111	PERSONNEL RECRUITER	profess. & kin.
	STEEL		220	PHARMACIST	medical ser.
21	PAINTER, BRUSH	any industry	220	PHLEBOTOMIST	medical ser.
20	PAINTER, HAND, DECORATIVE	any industry	211	PHOTOCOPYING MACHINE	clerical
80	PAINTER, SIGN	any industry		OPERATOR	
21	PAINTER, SPRAY GUN	any industry	221	PHOTOENGRAVER	print. & pub.
321	PAINTER, TOUCH-UP	any industry	221	PHOTOFINISHING LABORATORY	photofinishing
80	PAINTER, TRANSPORTATION	aircraft mfg.		WORKER	
	EQUIPMENT	-	213	PHOTOGRAPHER	amuse. & rec.
30	PALLETIZER OPERATOR,	any industry	212	PHOTOGRAPHER, STILL	profess. & kin.
	AUTOMATIC		221	PHOTOGRAPHIC PLATE MAKER	electron. comp.
30	PAPER CUTTER, MACHINE	beverage	213	PHOTOJOURNALIST	print. & pub.
60	PAPER-BALING MACHINE TENDER	any industry	230	PHOTOTYPESETTER OPERATOR	print. & pub.
31	PAPER-MAKING MACHINE	paper & pulp	310	PHYSIATRIST	medical ser.
	OPERATOR		311	PHYSICAL THERAPIST	medical ser.
60	PAPERCUTTING MACHINE	print. & pub.	340	PHYSICAL THERAPY AIDE	medical ser.
	OPERATOR	1 1	212	PHYSICIAN ASSISTANT	medical ser.
80	PAPERHANGER	construction	220	PHYSICIAN, GENERAL	medical ser.
21	PARACHUTE RIGGER	air trans.		PRACTITIONER	
211	PARALEGAL	profess. & kin.	320	PIANO TECHNICIAN	any industry
490	PARAMEDIC	medical ser.	221	PIANO TUNER	any industry
211	PARIMUTUEL TICKET SELLER	amuse. & rec.	491	PICKER, FRUIT	agriculture
190	PARK RANGER	government ser.	330	PICKING MACHINE OPERATOR	any industry
250	PARKING ENFORCEMENT OFFICER	government ser.	221	PICTURE FRAMER	retail trade

Group No.	Occupation	Industry	Group No.	Occupation	Industry
351	PILE-DRIVER OPERATOR	construction	321	POLISHER/BUFFER	any industry
370	PINSETTER ADJUSTER, AUTOMATIC	toy-sport equip.	330	POLISHING MACHINE OPERATOR	any industry
380	PINSETTER MECHANIC, AUTOMATIC	any industry	212	POLYGRAPH EXAMINER	profess. & kin.
380	PIPE COVERER AND INSULATOR	ship-boat mfg.	360	PORTER	air trans.
481	PIPE FITTER	construction	360	PORTER, BAGGAGE	hotel & rest.
480	PIPE LAYER	construction	330	POTTERY MACHINE OPERATOR	pottery & porc.
481	PIPE FITTER HELPER	construction	322	POULTRY DRESSER	agriculture
480	PIPE LAYER HELPER	construction	430	POWER BRAKE OPERATOR	any industry
380	PIPE ORGAN TUNER AND REPAIRER	any industry	230	POWER BARKER OPERATOR	paper & pulp
480	PIPELINER	pipe lines	332	POWER PLANT OPERATOR	utilities
330	PLANER OPERATOR	woodworking	330	POWER PRESS TENDER	any industry
430	PLANER OPERATOR, METAL	machine shop	332	POWER REACTOR OPERATOR	utilities
	CASTINGS		351	POWER SHOVEL OPERATOR	any industry
212	PLANT ENGINEER	profess. & kin.	481	POWERHOUSE MECHANIC	utilities
321	PLASTER MAKER	nonmet. min.	370	PRECISION ASSEMBLER &	aircraft mfg.
320	PLASTER MOLDER	foundry		REPAIRER	
420	PLASTER DIE MAKER	pottery & porc.	320	PRECISION ASSEMBLER, BENCH	aircraft mfg.
380	PLASTERER	construction	110	PRESIDENT	any industry
480	PLASTERER HELPER	construction	230	PRESS OPERATOR	laundry & rel.
230	PLATEN PRESS FEEDER	print. & pub.	330	PRESS OPERATOR, CYLINDER	print. and pub.
230	PLATEN PRESS OPERATOR	print. & pub.	430	PRESS OPERATOR, HEAVY DUTY	any industry
330	PLATER	electroplating	331	PRESS OPERATOR, MEAT	meat products
460	PLATER, ELECTROLESS, PRINTED	electron. comp.	230	PRESS OPERATOR, OFFSET	print. & pub.
	CIRCUIT BOARDS		330	PRESS OPERATOR, ROTOGRAVURE	print. & pub.
460	PLATER, HOT DIP	galvanizing	321	PRESSER, ALL-AROUND	laundry & rel.
460	PLATER, PRINTED CIRCUIT BOARD	electron. comp.	221	PRESSER, HAND	any industry
	PANELS		321	PRESSER, MACHINE	any industry
221	PLATER, SEMICONDUCTOR WAFERS	electron. comp.	230	PRINT DEVELOPER, AUTOMATIC	photofinishing
	& COMPONENTS	-	221	PRINTED CIRCUIT BOARD	comm. equip.
230	PLEATING MACHINE OPERATOR	any industry		ASSEMBLER, HAND	
481	PLUMBER	construction	120	PRINTED CIRCUIT DESIGNER	profess. & kin.
481	PLUMBER APPRENTICE	construction	320	PRINTER, JOB	print. & pub.
481	PLUMBER HELPER	construction	390	PROBATION OFFICER	profess. & kin.
370	PNEUMATIC TOOL REPAIRER	any industry	251	PROCESS SERVER	business ser.
380	PNEUMATIC TUBE REPAIRER	any industry	212	PRODUCER	radio-tv broad.
220	PODIATRIST	medical ser.	212	PROMPTER	amuse. & rec.
251	POLICE ARTIST	government ser.	211	PROOFREADER	print. & pub.
490	POLICE CAPTAIN	government ser.	111	PROOFREADER, PRODUCTION	print. & pub.
111	POLICE CLERK	government ser.	380	PROP MAKER	amuse. & rec.
490	POLICE OFFICER	government ser.	320	PROSTHETICS TECHNICIAN	protective dev.
490	POLICE OFFICER, STATE HIGHWAY	government ser.	310	PROSTHETIST	medical ser.
120	POLISHER, EYEGLASS FRAMES	optical goods	311	PSYCHIATRIC TECHNICIAN	medical ser.

Group No.	Occupation	Industry	Group No.	Occupation	Industry
340	PSYCHIATRIC WARD ATTENDANT	medical ser.	111	RECEPTIONIST	clerical
110	PSYCHOLOGIST, CLINICAL	profess. & kin.	212	RECORDING ENGINEER	radio-tv broad.
110	PSYCHOLOGIST, COUNSELING	profess. & kin.	360	RECORDING STUDIO SET-UP	recording
110	PUBLIC HEALTH SERVICE OFFICER	government ser.		WORKER	
380	PUBLIC ADDRESS SETTER-UP &	any industry	230	RECORDIST	motion picture
	SERVICER		214	RECREATION AIDE	social ser.
111	PUBLIC RELATIONS	profess. & kin.	310	RECREATIONAL THERAPIST	medical ser.
	REPRESENTATIVE		111	RECRUITER, PERSONNEL	profess. & kin.
212	PULMONARY FUNCTION	medical ser.	111	REGISTRATION CLERK	government ser.
	TECHNICIAN		212	REHABILITATION CENTER MANAGER	
470	PUMP INSTALLER	any industry	481	REINFORCING IRON WORKER	construction
370	PUMP SERVICER	any industry	221	REPAIRER	furniture
330	PUMP MACHINE OPERATOR	any industry	220	REPAIRER, ART OBJECTS	any industry
332	PUMP STATION OPERATOR,	waterworks	320	REPAIRER, OFFICE MACHINES	any industry
	WATERWORKS		320	REPAIRER, SALVAGED PARTS	any industry
330	PUNCH PRESS OPERATOR	any industry	320	REPAIRER, SMALL APPLIANCE	house. appl.
430	PUNCH PRESS OPERATOR,	any industry	320	REPAIRER, WIND INSTRUMENT	any industry
	AUTOMATIC		220	REPAIRER/ADJUSTER	office machines
251	PURCHASING AGENT	profess. & kin.	251	REPORTER	print. & pub.
111	PURSER	water trans.	110	REPORTS ANALYST	profess. & kin.
321	PUTTY GLAZER, POTTERY	any industry	213	REPOSSESSOR	clerical
221	QUALITY ASSURANCE MONITOR	auto. mfg.	460	RESAW OPERATOR	woodworking
212	QUALITY CONTROL TECHNICIAN	profess. & kin.	111	RESEARCHER	profess. & kin.
480	QUARRY WORKER	mine & quarry	111	RESERVATION CLERK	clerical
120	QUICK SKETCH ARTIST	amuse. & rec.	111	RESERVATIONS AGENT	air trans.
221	RACKET STRINGER	toy-sport equip.	311	RESPIRATORY THERAPIST	medical ser.
330	RADIAL ARM SAW OPERATOR	woodworking	340	RESPIRATORY THERAPY AIDE	medical ser.
320	RADIAL DRILL PRESS SETUP	machine shop	240	REST ROOM ATTENDANT	any industry
310	RADIATION THERAPY	medical ser.	380	RESTORATION TECHNICIAN	museums
	TECHNOLOGIST		214	RETAIL CLERK	retail trade
212	RADIOGRAPHER, INDUSTRIAL	any industry	111	<b>REVIEWER, FINAL APPLICATION</b>	insurance
310	RADIOLOGIC TECHNOLOGIST	medical ser.	330	REWINDER OPERATOR	paper goods
380	RADIOLOGICAL EQUIPMENT	inst. & app.	230	RICE GRADER	grain-feed mills
	SPECIALIST		240	RIDE OPERATOR	amuse. & rec.
212	RADIOTELEPHONE OPERATOR	any industry	482	RIGGER	ship-boat mfg.
481	RAILROAD CAR BUILDER	railroad equip.	482	RIGGER, HIGH	amuse. & rec.
481	RAILWAY CAR REPAIRER	railroad equip.	481	RIGGER/SLINGER	any industry
460	RAMP ATTENDANT	air trans.	330	RIPSAW OPERATOR	woodworking
111	RATER	insurance	230	RIVET AND BOLT MAKER	any industry
251	REAL ESTATE AGENT	profess. & kin.	330	RIVETER, HYDRAULIC	any industry
321	REAMER, HAND	machine shop	481	RIVETER, PNEUMATIC	any industry
330	REAMING MACHINE TENDER	nonfer. metal			

Group No.	Occupation	Industry	Group No.	Occupation	Industry
330	RIVETING MACHINE OPERATOR,	aircraft mfg.	251 251	SALES REP, OFFICE MACHINES	retail trade
330	AUTOMATIC RIVETING MACHINE OPERATOR	any industry	231	SALES REP, RECREATION, SPORTING GOODS	wholesale tr.
350	ROAD ROLLER OPERATOR	construction	251	SALES REP, SECURITY SYSTEMS	business ser.
330	ROBOTIC MACHINE OPERATOR	aircraft mfg.	212	SALES REP, UPHOLSTERY,	retail trade
470	ROBOTICS SERVICE TECHNICIAN	machinery mfg.	212	FURNITURE REPAIR	
351	ROCK DRILL OPERATOR	construction	251	SALES REP, WOMEN'S AND GIRLS'	wholesale tr.
560	ROLL TENDER/SETTER	print. & pub.	201	APPAREL	Wholebure ut
330	ROLLER MACHINE OPERATOR	metal prod., nec	251	SALESPERSON, AUTOMOBILES	retail trade
230	ROLLING MILL ATTENDANT	steel & rel.	214	SALESPERSON, GENERAL	retail trade
380	ROOFER	construction		MERCHANDISE	
480	ROOFER HELPER	construction	214	SALESPERSON, PARTS	retail trade
322	ROOM SERVICE CLERK	hotel & rest.	214	SALESPERSON, SHOES	retail trade
480	ROTARY DRILLER	petrol. & gas	430	SALVAGE CUTTER	welding
480	ROTARY DRILLER HELPER	petrol. & gas	480	SANDBLASTER	any industry
230	ROUGHER, BAR MILL	steel & rel.	330	SANDER, MACHINE	woodworking
480	ROUGHNECK	petrol. & gas	322	SANDWICH MAKER	hotel & rest.
480	ROUSTABOUT	petrol. & gas	331	SAUSAGE MAKER	meat products
211	ROUTER	clerical	331	SAUSAGE STUFFER	meat products
330	ROUTER OPERATOR	any industry	321	SAW BLADE FILER	any industry
330	ROUTER OPERATOR	woodworking	360	SAWMILL WORKER	saw. & plan.
460	RUBBER CUTTER	rubber goods	330	SAWYER	plastic prod.;
230	RUBBER MILL OPERATOR	plastic-synth.			plastic-synth.
340	RUG CLEANER, HAND OR MACHINE	laundry & rel.	230	SAWYER, CIRCULAR HEAD	saw. & plan.
321	RUG REPAIRER	laundry & rel.	230	SAWYER, CORK SLABS	wood prod., nec
420	SADDLE MAKER	leather prod.	330	SAWYER, TRIMMER	saw. & plan.
212	SAFETY ENGINEER	profess. & kin.	111	SCHEDULER	clerical
212	SAFETY MANAGER	profess. & kin.	111	SCOREBOARD OPERATOR	amuse. & rec.
380	SAIL MAKER	ship-boat mfg.	251	SCOUT, PROFESSIONAL SPORTS	amuse. & rec.
322	SALAD MAKER	water trans.	460	SCRAP HANDLER	any industry
212	SALES AGENT, INSURANCE	insurance	320	SCREEN MAKER, PHOTOGRAPHIC	any industry
214	SALES CLERK	retail trade	221	PROCESS	,
251	SALES REP, FARM, GARDEN EQPT. & SUPPLIES	wholesale tr.	221 330	SCREEN MAKER, WALLPAPER SCREW MACHINE OPERATOR,	paper goods machine shop
212	SALES REP, ADVERTISING	print. & pub.		MULTIPLE SPINDLE	1
251	SALES REP, COMPUTERS AND EDP SYSTEMS	wholesale tr.	330 321	SCROLL MACHINE OPERATOR SCULPTOR	struct. metal stonework
212	SALES REP, DATA PROCESSING SERVICES	business ser.	112 112	SECRETARY SECRETARY, LEGAL	clerical
251	SALES REP, DOOR-TO-DOOR	retail trade	112	SECRETARY, MEDICAL	medical ser.
212	SALES REP, FINANCIAL SERVICES	financial	112	SECRETARY, SOCIAL	clerical
251	SALES REP, LIVESTOCK	wholesale tr.	212	SECURITY GUARD, GATE	any industry

Group No.	Occupation	Industry	Group No.	Occupation	Industry
213	SECURITY GUARD, PLANT	any industry	220	SILVERSMITH	jewelry-silver.
390	SECURITY OFFICER	any industry	210	SINGER	amuse. & rec.
230	SEED PELLETER	agriculture	221	SKI REPAIRER, PRODUCTION	toy-sport equip.
212	SEISMOLOGIST	profess. & kin.	420	SKINNER	meat products
330	SEMICONDUCTOR PROCESSOR	electron. comp.	480	SKIP TENDER	mine & quarry
380	SEPTIC TANK INSTALLER	construction	111	SKIP TRACER	clerical
480	SEPTIC TANK SERVICER	construction	460	SLASHER TENDER	textile
214	SERVICE MANAGER	automotive ser.	230	SLICING MACHINE OPERATOR	bakery products
213	SERVICE REPRESENTATIVE	utilities	460	SLITTING MACHINE OPERATOR	any industry
340	SERVICE STATION ATTENDANT	automotive ser.		HELPER	
213	SET DESIGNER	motion picture	331	SLURRY BLENDER	cement
320	SETTER, AUTOMATIC SPINNING	any industry	590	SMOKE JUMPER	forestry
	LATHE		351	SNOWPLOW OPERATOR	government ser.
480	SEWAGE DISPOSAL WORKER	sanitary ser.	230	SOAP MAKER	soap & rel.
221	SEWER, HAND	any industry	111	SOCIAL WORKER	social ser.
480	SEWER LINE REPAIRER	sanitary ser.	111	SOFTWARE ENGINEER	profess. & kin.
341	SEWER PIPE CLEANER	business ser.	213	SOIL CONSERVATIONIST	profess. & kin.
230	SEWING MACHINE OPERATOR	tex. prod., nec	481	SOLAR ENERGY SYSTEM INSTALLER	any industry
370	SEWING MACHINE REPAIRER	any industry	470	SOLAR FABRICATION TECHNICIAN	machine shop
330	SHAPER OPERATOR	woodworking	120	SOLDERER	jewelry-silver.
330	SHAPING MACHINE OPERATOR	machine shop	111	SORTER	clerical
430	SHEAR OPERATOR	any industry	221	SORTER, AGRICULTURAL PRODUCE	agriculture
370	SHEETMETAL MECHANIC	any industry	221	SORTER, REMNANT	textile
320	SHEETMETAL FABRICATING	any industry	214	SORTER-PRICER	nonprofit org.
	MACHINE OPERATOR		212	SOUND MIXER	motion picture
491	SHELLFISH GROWER	fishing & hunt.	212	SOUND EFFECTS TECHNICIAN	radio-tv broad.
490	SHERIFF, DEPUTY	government ser.	322	SOUS CHEF	hotel & rest.
481	SHIPFITTER	ship-boat mfg.	490	SPECIAL AGENT	government ser.
480	SHIPFITTER HELPER	ship-boat mfg.	390	SPECIAL POLICEMAN	any industry
360	SHIPPING AND RECEIVING CLERK	clerical	212	SPEECH PATHOLOGIST	profess. & kin.
214	SHIPPING CHECKER	clerical	331	SPINNER	sugar & conf.
380	SHIPWRIGHT	ship-boat mfg.	430	SPINNER, HYDRAULIC	any industry
221	SHOE REPAIRER	personal ser.	330	SPINNING LATHE OPERATOR	any industry
214	SHOP ESTIMATOR	automotive ser.	221	SPORTS EQUIPMENT REPAIRER	any industry
210	SHOW HOST/HOSTESS	radio-tv broad.	221	SPOT CLEANER	laundry & rel.
250	SHUTTLE BUS DRIVER	any industry	111	SPOTTER, PHOTOGRAPHIC	photofinishing
380	SIDER	construction	330	SPRAY PAINTING MACHINE	any industry
341	SIGN POSTER	any industry		OPERATOR	-
120	SIGN WRITER, HAND	any industry	460	SPREADER MACHINE, CLOTH	textile
221	SILK SCREEN ETCHER	engraving	491	STABLE ATTENDANT	any industry
221	SILK SCREEN PRINTER	any industry	230	STAMPING PRESS OPERATOR	any industry
221	SILK SCREEN FRAME ASSEMBLER	any industry	390	STAND-IN	motion picture

Group No.	Occupation	Industry	Group No.	Occupation	Industry
330 380	STAPLING MACHINE OPERATOR	any industry tel. & tel.	221	STRIPER & LETTERER, HAND,	any industry
380 332	STATION INSTALLER AND REPAIRER STATIONARY ENGINEER	any industry	331	MOTORCYCLES STRIPPER-ETCHER, PRINTED	alastuan samu
552 111	STATIONART ENGINEER STATISTICIAN, APPLIED	profess. & kin.	551	CIRCUIT BOARDS	electron. comp.
340	STEAM CLEANER	automotive ser.	482	STRUCTURAL STEEL WORKER	construction
482	STEEL ERECTOR	construction	482	STRUCTURAL STEEL WORKER	construction
380	STEEL PLATE CAULKER	any industry	-102	HELPER	construction
482	STEEPLE JACK	construction	380	STUCCO MASON	construction
112	STENOCAPTIONER	radio-tv broad.	590	STUNT PERFORMER	amuse. & rec.
112	STENOGRAPHER	clerical	320	SUBASSEMBLER	machinery mfg.
112	STENOTYPE OPERATOR	clerical	332	SUBSTATION OPERATOR	utilities
330	STEREOTYPE CASTER & MOLDER	print. & pub.	250	SUBWAY CAR OPERATOR	r.r. trans.
230	STERILIZER	medical ser.	332	SUPERCALENDER OPERATOR	paper & pulp
351	STEVEDORE	water trans.	212	SUPERINTENDENT, BUILDING	any industry
230	STILL TENDER	any industry	213	SUPERINTENDENT, CONSTRUCTION	construction
230	STITCHER, STANDARD MACHINE	boot & shoe	212	SUPERINTENDENT, PLANT	any industry
230	STITCHER, WIRE, SADDLE AND SIDE	print. & pub.		PROTECTION	····· j ····· ··· j
214	STOCK CLERK	clerical	360	SUPPLY CLERK	clerical
360	STOCK CLERK	clerical	220	SURGEON	medical ser.
360	STOCK CLERK	retail trade	230	SURGICAL DRESSING MAKER,	protective dev.
214	STOCK CLERK, AUTOMOTIVE EQPT.	clerical		MACHINE	1
321	STONE CARVER	stonework	213	SURVEYOR	surveying/carto-
480	STONE DRILLER	stonework			graphic
220	STONE SETTER	jewelry-silver.	360	SURVEYOR HELPER	any industry
480	STONE SPLITTER OPERATOR	stonework	340	SWIMMING POOL SERVICER	any industry
321	STONECUTTER, HAND	stonework	111	SWITCHBOARD OPERATOR, POLICE	government ser.
330	STONECUTTER, MACHINE	stonework		DISTRICT	-
380	STONEMASON	construction	331	SYRUP MAKER	beverage
120	STONER	jewelry-silver.	111	SYSTEMS ANALYST	profess. & kin.
470	STOVE REFINISHER	any industry	111	SYSTEMS PROGRAMMER	profess. & kin.
321	STRAIGHTENER, HAND	any industry	230	TACKING MACHINE OPERATOR	any industry
330	STRAIGHTENING PRESS OPERATOR	any industry	221	TAILOR, ALTERATION	garment
330	STRANDING MACHINE OPERATOR	elec. equip.	221	TAILOR, CUSTOM	garment
460	STRAPPING MACHINE OPERATOR	wood. container	460	TANK CLEANER	any industry
340	STREET CLEANER/SWEEPER,	government ser.	380	TAPER	construction
	MANUAL		120	TAPER, PRINTED CIRCUIT LAYOUT	electron. comp.
380	STREET LIGHT SERVICER	utilities	330	TAPPING MACHINE TENDER	nut & bolt
351	STREET SWEEPER OPERATOR	government ser.	111	TAX CLERK	clerical
111	STRESS ANALYST	aircraft mfg.	111	TAX PREPARER	business ser.
212	STRESS TEST TECHNICIAN	medical ser.	250	TAXI DRIVER	motor trans.
230	STRETCHING MACHINE TENDER,	leather mfg.	311	TAXIDERMIST	profess. & kin.
	FRAME		214	TEACHER AIDE	education

Group No.	Occupation	Industry	Group No.	Occupation	Industry
212	TEACHER, ADULT EDUCATION	education	240	TICKET TAKER	amuse. & rec.
214	TEACHER, ELEMENTARY SCHOOL	education	330	TILE MAKER	brick & tile
214	TEACHER, INDUSTRIAL ARTS	education	380	TILE SETTER	construction
214	TEACHER, LEARNING DISABLED	education	480	TILE SETTER HELPER	construction
214	TEACHER, MUSIC	education	330	TIMBER-SIZER OPERATOR	saw. & plan.
390	TEACHER, PHYSICAL EDUCATION	education	212	TIME AND MOTION STUDY ANALYST	profess. & kin.
214	TEACHER, PHYSICALLY IMPAIRED	education	321	TIRE BUILDER, AUTOMOBILE	rubber tire
214	TEACHER,	education	460	TIRE CHANGER	automotive ser.
	PRESCHOOL/KINDERGARTEN		460	TIRE MOLDER	rubber tire
212	TEACHER, SECONDARY SCHOOL	education	321	TIRE RECAPPER	automotive ser.
214	TEACHER, VOCATIONAL TRAINING	education	460	TIRE REPAIRER	automotive ser.
120	TECHNICAL ILLUSTRATOR	profess. & kin.	420	TIRE TRIMMER, HAND	rubber tire
112	TELEGRAPH OPERATOR	clerical	211	TITLE SEARCHER	real estate
112	TELEPHONE OPERATOR	clerical	211	TOLL COLLECTOR	government ser.
112	TELEPHONE ANSWERING SERVICE	business ser.	220	TOOL DESIGNER	profess. & kin.
	OPERATOR		330	TOOL DRESSER	any industry
350	TELEPHONE DIRECTORY DELIVERER	business ser.	320	TOOL MAKER	machine shop
111	TELEVISION CONSOLE MONITOR	radio-tv broad.	320	TOOL MAKER, BENCH	machine shop
380	TELEVISION RECEIVER/ANTENNA INSTALLER	any industry	120	TOOL PROGRAMMER, NUMERICAL CONTROL	electron. comp.
470	TELEVISION TECHNICIAN	radio-tv broad.	360	TOOL AND EQUIPMENT RENTAL	business ser.
320	TELEVISION AND RADIO REPAIRER	any industry		CLERK	
211	TELLER	financial	360	TOOL CRIB ATTENDANT	clerical
214	TELLER, VAULT	financial	430	TORCH STRAIGHTENER AND	any industry
320	TEMPLATE MAKER	any industry		HEATER	
380	TERRAZZO INSTALLER	construction	221	TOUCH-UP PAINTER, HAND	any industry
480	TERRAZZO INSTALLER HELPER	construction	482	TOWER ERECTOR	construction
220	TEST TECH, SEMICONDUCTOR	electron. comp.	212	TOXICOLOGIST	pharmaceut.
	PROCESSING EQUIPMENT		221	TOY ASSEMBLER	toy-sport equip.
320	TESTER, NONDESTRUCTIVE	profess. & kin.	351	TRACTOR OPERATOR	any industry
212	TESTING MACHINE OPERATOR,	profess. & kin.	351	TRACTOR CRANE OPERATOR	any industry
	METAL		111	TRAFFIC CLERK	business ser.
370	THERMAL CUTTER, HAND	welding	212	TRAFFIC ENGINEER	government ser.
330	THERMAL CUTTING-MACHINE	welding	490	TRAFFIC OFFICER	government ser.
220	OPERATOR THEPMOSTATI DEPAIDED		111	TRAIN DISPATCHER	r.r. trans.
320 221	THERMOSTAT REPAIRER THREAD CUTTER, HAND OR	inst. & app. any industry	112	TRANSCRIBING MACHINE OPERATOR	clerical
	MACHINE		370	TRANSFORMER ASSEMBLER	elec. equip.
330	THREADING MACHINE OPERATOR	machine shop	111	TRANSLATOR, DOCUMENTS	profess. & kin.
321	THROWER	pottery & porc.	492	TREE CUTTER	agriculture
212	TICKET AGENT	any industry	491	TREE PRUNER, LOW LEVEL/BUCKET	agriculture
230	TICKET PRINTER	any industry	482	TREE SURGEON	agriculture

Group No.	Occupation	Industry	Group No.	Occupation	Industry
482	TREE TRIMMER	tel. & tel.	214	VAULT CASHIER	business ser.
230	TRIMMER, MACHINE	garment	213	VENDOR	amuse. & rec.
322 221	TRIMMER, MEAT TROPHY ASSEMBLER	meat products jewelry-silver.	340	VENETIAN BLIND CLEANER AND REPAIRER	any industry
350	TRUCK DRIVER	any industry	311	VETERINARIAN	medical ser.
350	TRUCK DRIVER, CONCRETE MIXING	construction	311	VETERINARIAN, LABORATORY	medical ser.
350	TRUCK DRIVER, DUMP TRUCK	any industry		ANIMAL CARE	
350	TRUCK DRIVER, GARBAGE	motor trans.	311	VETERINARY TECHNICIAN	medical ser.
350	TRUCK DRIVER, LOGS	logging	212	VIDEOTAPE OPERATOR, STUDIO	radio-tv broad.
351 350	TRUCK DRIVER, ROAD OILING TRUCK DRIVER, SALES ROUTE	construction retail trade	110	VOCATIONAL REHABILITATION CONSULTANT	government ser.
350	TRUCK DRIVER, TANK TRUCK	petrol. refin.	212	VOICE PATHOLOGIST	profess. & kin.
350	TRUCK DRIVER, TOW TRUCK	automotive ser.	212	WAFER FAB OPERATOR	electron. comp.
350	TRUCK DRIVER, TRACTOR-TRAILER	any industry	322	WAITER/WAITRESS	hotel & rest.
460	TRUCK LOADER	any industry	480	WALLPAPER REMOVER, STEAM	construction
460	TRUCK DRIVER HELPER	any industry	360	WAREHOUSE WORKER	any industry
320	TUBE ASSEMBLER, CATHODE RAY	electron. comp.	331	WASHER, MACHINE	any industry
221	TUBE BENDER, HAND	any industry	340	WASHER, MACHINE	laundry & rel.
341	TUBE CLEANER	any industry	460	WASHING MACHINE LOADER AND	laundry & rel.
330	TUBULAR FURNITURE MAKER	any industry	100	PULLER	idailary corten.
111	TUMOR REGISTRAR	medical ser.	460	WASTE DISPOSAL ATTENDANT,	any industry
332	TURBINE ATTENDANT	utilities		RADIOACTIVE	5 5
332	TURBINE OPERATOR	utilities	332	WASTE TREATMENT OPERATOR	chemical
330	TURRET LATHE OPERATOR	machine shop	332	WASTEWATER TREATMENT PLANT	sanitary ser.
212	TUTOR	education		OPERATOR	5
221	TYPESETTER/COMPOSITOR	print. & pub.	220	WATCH REPAIRER	clock & watch
230	TYPESETTING MACHINE TENDER	print. & pub.	380	WATER METER INSTALLER	waterworks
112	TYPIST	clerical	332	WATER PUMP TENDER	any industry
212	ULTRASOUND TECHNOLOGIST	medical ser.	460	WATER SOFTENER SERVICER AND	business ser.
214	UMPIRE	amuse. & rec.		INSTALLER	
110	UNDERWRITER, MORTGAGE LOAN	financial	332	WATER TREATMENT PLANT	waterworks
321	UPHOLSTERY REPAIRER	furniture		OPERATOR	
110	URBAN PLANNER	profess. & kin.	230	WEAVER, TEXTILE	nonmet. min.
370	USED CAR RENOVATOR	retail trade	330	WEB PRESS OPERATOR HELPER,	print. & pub.
240	USHER	amuse. & rec.		OFFSET	
330	UTILITY OPERATOR	saw. & plan.	330	WEB PRESS OPERATOR	print. & pub.
320	VACUUM CLEANER REPAIRER	any industry	360	WEIGHER, PRODUCTION	any industry
351	VACUUM CLEANER OPERATOR, INDUSTRIAL	any industry	214 240	WEIGHER, SHIPPING AND RECEIVING WEIGHT REDUCTION SPECIALIST	clerical personal services
250	VALET, PARKING	automotive serv.	460	WEIGHT REDUCETION SI LONALIST WELDER HELPER	welding
330	VARIETY SAW OPERATOR	woodworking	430	WELDER, ARC	welding
112	VARITYPE OPERATOR	clerical	370	WELDER, COMBINATION	welding

Group No.	Occupation	Industry	Group No.	Occupation	Industry
370	WELDER, GAS	welding	460	YARD ATTENDANT, BUILDING	retail trade
370	WELDER, GUN	welding		MATERIALS	
370	WELDER, PRODUCTION LINE	welding	351	YARDER OPERATOR,	logging
430	WELDER, TACK	welding		FIXED/PORTABLE	
380	WELDER-FITTER	welding			
330	WELDING MACHINE OPERATOR, ARC	welding			
480	WELL DIGGER	construction			
480	WELL PULLER	petrol. & gas			
480	WELL DRILL OPERATOR	construction			
480	WELL DRILL OPERATOR HELPER	construction			
320	WHEEL LACER AND TRUER	motor-bicycles			
482	WIND GENERATING ELECTRIC POWER INSTALLER	construction			
330	WINDER	paper goods			
460	WINDER OPERATOR, FLOOR COVERINGS	fabrication			
230	WINDER, MAGNETIC TAPE	recording			
330	WINDER, YARN	tex. prod., nec			
330	WINDING-MACHINE OPERATOR, CLOTH	textile			
341	WINDOW CLEANER	any industry			
380	WINDOW REPAIRER	any industry			
213	WINE MAKER	beverage			
240	WINE STEWARD/STEWARDESS	hotel & rest.			
332	WINERY WORKER	beverage			
221	WIRE HARNESS ASSEMBLER	elec. equip.			
330	WIRE DRAWING MACHINE TENDER	nonfer. metal			
230	WIRE WRAPPING MACHINE OPERATOR	electron. comp.			
330	WOOD-CARVING MACHINE OPERATOR	woodworking			
321	WOOL AND PELT GRADER	meat products			
112	WORD PROCESSING MACHINE OPERATOR	clerical			
330	WRAPPING MACHINE OPERATOR	any industry			
480	WRECKER, CONSTRUCTION	construction			
112	WRITER, PROSE, FICTION AND NONFICTION	profess. & kin.			
112	WRITER, TECHNICAL PUBLICATIONS	profess. & kin.			
212	XRAY OPERATOR, INDUSTRIAL	any industry			
310	XRAY TECHNOLOGIST	medical ser.			

NOTES:

## **SECTION 4 - OCCUPATIONAL VARIANTS**

Use this section to determine the occupational variant for the particular disability and occupation under consideration.

Locate the row on which the disability number appears, and the column headed by the group number. Record the letter appearing at the intersection of the row and column. This letter is the "Occupational Variant" which is represented by a letter between "C" and "J" inclusive.

If "100" is shown instead of a letter, the disability rates 100% regardless of occupation.

After establishing the occupational variant, turn to Section 5, page 5-1 to adjust the rating for occupation.

		110	111	112	120	210	211	212	213	214	220	221	230	240	250	251	290	310	311	320	321	322	330
1.1	PARALYSIS	D	F	G	G	Е	F	Ε	F	F	G	G	F	Ε	F	Е	G	F	G	Η	G	G	G
1.3	EPILEPSY	Н	G	I	I	Н	G	Н	I	Н	I	Н	F	F	J	I	Η	I	I	I	G	Н	Н
1.4	PSYCHIATRIC	J	I	I	H	I	H	J	I	I	J	F	F	G	H	I	H	I	J	H	F	G	F
1.5 1.6	PST-TRAUM HEAD VERTIGO	I D	H D	H D	H D	H E	н D	H E	I H	H F	H F	G F	F	G E	H G	H F	G E	H F	H F	H F	F F	G F	F
1.0	HEADACHES	I	н	н	н	Н	н	Н	I	н	Н	G	F	G	н	Н	G	н	н	Н	F	G	F
1.8	COGNITIVE DIS	I	Н	Н	Н	н	Н	Н	I	Н	Н	G	F	G	Н	н	G	н	Н	Н	F	G	F
2.1	SIGHT-COSMETIC	I	I	J	J	J	I	I	I	J	J	н	G	G	I	I	J		E C	т	II	н н	ł G
	5 VISION	н	I	J	J	I	I	I	I	I	J	н	G	F	I	н	I	I	I	, I	н	G	G
2.7	LACRIMATION	I	I	J	J	J	I	I	I	J	J	Н	G	G	I	I	J	:	E J	J	II	н н	I G
3.1	HEARING LOSS	J	Н	I	F	J	Н	I	Н	J	Н	D	Е	Н	Н	J	I	ċ	J	J	E I	DF	ΗE
4.1	COSMETIC	I	I	I	н	J	I	I	Н	J	J	G	Е	J	Н	J	J		E C	JI	E I	E F	ΗE
4.3-4.4		С	С	С	С	D	С	С	F	С	С	D	F	D	F	D	С	С	D	F	F	F	F
4.5	JAW	I	Н	Н	F	J	Н	I	Н	J	I	F	F	G	G	I	Н	F	1	I	F	FG	5 F
4.7	NOSE	Н	Η	Η	F	J	Н	Η	Η	Η	G	F	F	F	F	F	Η	E	7 H	7	F	FI	F
5.2	SPEECH	J	I	I	F	J	I	I	Н	J	I	D	D	Н	Н	J	I	:	I :	I I	) C	c c	5 D
5.31	SMELL	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	G	F	F	F	F	Н	F
5.32	TASTE	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
5.33	SMELL, TASTE	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	G	F	F	F	F	Н	F
6.1	SKIN - OUTSIDE	F	F	F	F	F	F	F	Н	F	F	F	F	G	G	G	F	F	F	F	F	F	F
6.2	SKIN - WET WK	F	F	F	F	F	F	F	F	F	G	F	F	F	F	F	Η	F	G	G	F	Н	F
7.1	ARM AMP	Е	G	Н	Н	Е	G	F	Е	G	Н	G	G	Е	F	F	G	F	G	Н	G	G	G
7.3	SHOULDER	С	D	D	Е	С	D	Е	Е	F	F	F	F	D	F	D	G	F	F	F	F	F	F
7.5	ELBOW	D	F	G	G	D	F	Е	Ε	F	G	G	F	Е	G	F	G	F	G	Η	G	G	G
7.6	FOREARM	D	G	Н	Н	D	G	F	E	G	H	G	F	E	F	E	Н	F	G	I	Н	G	F
7.7	WRIST	D	G	Η	Η	D	G	F	Е	G	Η	G	F	Е	F	Е	Н	F	G	I	Н	G	F
8.11	THUMB AMP	F	G	G	Η	Е	G	F	F	G	Н	Η	G	Е	F	F	Н	F		; 1	H (	g o	
8.12	INDEX AMP	F	Н	I	I	Е	Н	G	F	Н	I	Η	G	Е	F	F	Η	G	Η	I	Н	Н	G
8.13	MIDDLE AMP	F	H	I I	I	E	H	G F	F F	H G	I G	Н	G F	E	F	F	H F	G				H F G G	
8.14 8.15	RING AMP LITTLE AMP	F	G G	I	G G	E E	G G	F	F	G	G	G G	F	E E	F	F	F	F				3 3	
0.10	DITION WHI	τ.	U	-	0		0	Ľ	Ľ	0	3	0	Ľ		1	1	Ľ	1	Ċ				·

		331	332	340	341	350	351	360	370	380	390	420	430	460	470	480	481	482	490	491	492	560	590
1.1	PARALYSIS	F	F	G	Η	G	G	G	I	J	Η	Н	Н	Н	I	Н	J	J	I	Н	I	I	J
1.3	EPILEPSY	G	G	F	I	J	J	F	I	J	G	G	I	G	I	Н	J	J	J	G	Н	Н	J
1.4	PSYCHIATRIC	F	G	D	D	Н	G	Е	Η	Н	Η	F	G	Е	Н	Е	Н	I	J	D	Е	D	I
1.5	PST-TRAUM HEAD	F	F	D	Н	Н	G	Е	Н	I	G	F	Н	Е	Н	F	I	J	I	D	G	Е	J
1.6	VERTIGO	F	F	F	I	G	G	F	Η	J	G	F	G	F	Н	G	J	J	I	F	Н	Н	J
1.7	HEADACHES	F	F	D	Η	Н	G	Е	Н	I	G	F	Н	Е	Н	F	I	J	I	D	G	Е	J
1.8	COGNITIVE DIS	F	F	D	Н	Н	G	Е	Η	I	G	F	Н	E	Η	F	I	J	I	D	G	Е	J
2.1	SIGHT-COSMETIC	F	G	F	F	I	Н	F	Н	Н	Н	G	G	F	Н	F	Н	I	J	F	G	F	I
2.2-2.6	VISION	F	G	F	F	I	Н	F	Н	Н	G	G	G	F	Н	F	Н	I	I	F	G	F	I
2.7	LACRIMATION	F	G	F	F	I	Н	F	Н	Н	Η	G	G	F	Н	F	Н	I	J	F	G	F	I
3.1	HEARING LOSS	Е	G	F	Е	Н	G	G	G	G	Η	D	F	F	G	F	G	Н	I	F	F	F	I
4.1	COSMETIC	Е	Е	G	Е	G	Е	F	F	F	Н	Е	Е	F	F	Е	F	Е	J	Е	Е	Е	I
4.3-4.4	SKULL	F	D	F	Н	F	F	F	F	I	G	F	I	F	F	Н	I	J	J	F	I	G	J
4.5	JAW	F	F	F	F	G	F	F	F	F	G	F	F	F	F	F	F	G	Н	F	G	F	G
4.7	NOSE	F	F	F	F	Н	F	F	F	G	Н	F	G	F	F	F	G	I	J	F	G	F	J
5.2	SPEECH	D	F	G	F	н	F	G	F	G	н	С	D	F	F	F	G	G	I	F	G	F	н
5.31	SMELL	F	F	F	F	F	F	F	F	F	G	F	F	F	F	F	F	F	G	F	F	F	F
5.32	TASTE	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
5.33	SMELL, TASTE	F	F	F	F	F	F	F	F	F	G	F	F	F	F	F	F	F	G	F	F	F	F
6.1	SKIN - OUTSIDE	F	F	F	н	G	G	F	F	н	G	F	F	F	F	н	н	н	н	н	н	G	н
6.2	SKIN - WET WK	G	F	G	G	F	F	F	G	G	F	н	F	F	G	F	G	F	F	F	F	F	F
7.1	ARM AMP	F	F	F	F	G	G	G	H	H	G	Н	H	G	H	G	H	J	I	G	H	H	J
7.3	SHOULDER	F	F	F	G	F	G	G	G	н	G	G	н	G	H	H	H	I	I	G	H	H	J
7.5 7.6	ELBOW FOREARM	F	F E	G F	G F	H F	H G	G F	I J	I J	G G	H I	I H	G G	I J	H G	I J	J	I H	G G	н н	н н	J J
7.6	WRIST	F	E	F	F	F	G	F	J	J	G	I	н Н	G	J	G	J	J J	н Н	G	н Н	н Н	J
1.1	WRIDI	Ŀ	15	Ľ	Ľ	Ľ	G	Ŀ	U	U	G	T	11	9	U	G	U	U	11	G	11	11	U
8.11	THUMB AMP	F	F	F	F	G	G	F	Η	Н	G	Н	Н	G	Η	G	Н	I	Н	G	Η	Н	I
8.12	INDEX AMP	F	F	F	F	G	G	F	I	I	G	G	Н	F	I	G	I	I	H	F	G	G	I
8.13	MIDDLE AMP	F	F	F	F	G	G	F	I	I	G	G	H	F	I	G	I	I	н	F	G	G	I
8.14	RING AMP	F	F	F	F	F	F	F	H	H	G	G	H	F	H	G	Н	H	Н	F	G	G	I
8.15	LITTLE AMP	F	F	F	F	F	F	F	Н	Н	G	G	Н	F	Н	G	Н	Н	Н	F	G	G	I

		110	111	112	120	210	211	212	213	214	220	221	230	240	250	251	290	310	311	320	321	. 322	33	0
8.2	T+I AMP	F	Н	I	I	Е	Н	G	F	Н	I	Н	G	Е	G	F	Н	G	Н	I	Н	Н	G	
8.3	T+I+M AMP	F	Н	I	I	Е	Н	G	F	Н	I	Н	G	Е	G	F	Н	G	Н	I	Η	Н	G	
8.4	I+M+R+L AMP	F	G	I	Н	Е	G	F	F	G	Η	G	G	Е	F	F	G	F	G	Н	G	G	G	
8.5	ALL FGRS AMP	F	G	I	Н	Ε	G	F	F	G	Η	G	G	Е	F	F	G	F	G	Н	G	G	G	
9.11	THUMB IMMOB	F	G	G	н	Е	G	F	F	G	Н	Н	G	Е	F	F	Н	F	، د	; F	ł	G	G	G
9.12	INDEX IMMOB	F	Н	I	I	Е	Н	G	F	Н	I	Н	G	Е	F	F	Н	G	Н	I	Η	Н	G	
9.13	MIDDLE IMMOB	F	Н	I	I	Е	Н	G	F	Н	I	Н	G	Е	F	F	Н	G	; H	I	I	Н	Н	G
9.14	RING IMMOB	F	G	I	G	Е	G	F	F	G	G	G	F	Е	F	F	F	F	7 G	; F	ł	G	G	F
9.15	LITTLE IMMOB	F	G	I	G	E	G	F	F	G	G	G	F	Ε	F	F	F	F	, C	; F	ł	G	G	F
9.2	T+I IMMOB	F	Н	I	I	Е	Н	G	F	Н	I	Н	G	Е	G	F	Н	G	; F	I	I	Н	Н	G
9.3	T+I+M IMMOB	F	Н	I	I	Е	Н	G	F	Н	I	Н	G	Е	G	F	Н	G	Н	I	Н	Н	G	
9.4	I+M+R+L IMMOB	F	G	I	Н	Е	G	F	F	G	Н	G	G	Е	F	F	G	F	G	Н	G	G	G	
9.5	ALL FGRS IMMOB	F	G	I	Н	Е	G	F	F	G	Н	G	G	Е	F	F	G	F	G	Н	G	G	G	
10.5	GRIP	D	Е	Е	F	С	Е	Е	Е	F	F	F	G	D	F	F	F	F	F	Н	G	G	G	
11.1	PULMONARY	F	Е	D	D	н	Е	F	F	F	Е	Е	Е	Е	F	F	F	F	G	F	F	F	F	
11.3	HEART	G	F	Е	Е	F	F	G	G	G	G	Е	Е	F	G	G	F	G	Н	F	F	F	F	
11.5	RIB	F	Е	D	D	Н	Е	F	F	F	Е	Е	Е	Е	F	F	F	F	G	F	F	F	F	
12.1	SPINE	С	С	D	D	D	D	Е	F	F	Е	Е	Е	Е	F	Е	Е	F	G	F	F	F	F	
12.3	SPINE - PARALYS	ISL00	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	) 10	0
13.1	ABDOM - HERNIA	С	С	С	С	С	D	Е	F	F	D	D	Е	Е	F	Е	D	F	G	F	F	F	F	
13.2	ABDOM ORGANS	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	7 E	7 I	7	F	F	F
14.1	LEG AMP	D	D	С	С	Е	Е	Е	F	F	Е	Е	Е	Е	F	Е	Е	F	7 E	7 I	7	F	F	F
14.2	TOE AMP	D	D	С	С	Е	Е	Е	F	F	Е	Е	Е	Е	F	Е	Е	F	F	F	F	F	F	
14.3	LEG SHORT	С	С	С	С	D	D	D	Е	D	D	D	D	D	D	D	D	D	) E	E F	Ξ	Е	Е	Е
14.4	HIP	D	D	С	С	Е	Е	Е	F	F	Е	Е	Е	Е	F	Е	Е	F	, E	7 1	7	F	F	F
14.5	KNEE, THIGH	D	D	С	С	Е	Е	Е	F	F	Е	Е	Е	Е	F	Е	Е	F	F	F	F	F	F	
14.6	ANKLE, CALF	D	D	С	С	Е	Е	Е	F	F	Е	Е	Е	Е	F	Е	Е	F	7 E	r I	7	F	F	F
14.7	TOE IMMOB	С	С	С	С	D	D	D	Е	D	D	D	D	D	D	D	D	D	) E	E F	Ξ	Е	Е	Е
14.8	POST-THROM	D	D	D	D	Е	Е	Ε	F	F	Е	Ε	Е	Е	F	Е	Е	F	7 F	7 I	?	F	F	F

		331	332	340	341	350	351	360	370	380	390	420	430	460	470	480	481	482	490	491	492	56
8.2	T+I AMP	F	F	F	F	G	G	F	I	I	G	G	Н	F	I	G	I	J	Н	F	Н	Н
8.3	T+I+M AMP	F	F	F	F	G	G	F	I	I	G	G	Н	F	I	G	I	J	Н	F	н	н
8.4	I+M+R+L AMP	F	F	F	F	G	G	F	Н	Н	G	G	Н	F	Н	G	Η	I	Н	F	G	G
8.5	ALL FGRS AMP	F	F	F	F	G	G	F	Η	Η	G	G	Н	F	Н	G	Н	I	Η	F	G	G
9.11	THUMB IMMOB	F	F	F	F	G	G	F	Н	Н	G	Н	н	G	Н	G	Н	I	Н	G	Н	н
9.12	INDEX IMMOB	F	F	F	F	G	G	F	I	I	G	G	Н	F	I	G	I	I	Н	F	G	
9.13	MIDDLE IMMOB	F	F	F	F	G	G	F	I	I	G	G	Н	F	I	G	I	I	Н	F	G	
9.14	RING IMMOB	F	F	F	F	F	F	F	Н	Н	G	G	Η	F	Η	G	Η	Н	Η	F	G	
9.15	LITTLE IMMOB	F	F	F	F	F	F	F	Η	Η	G	G	Η	F	Η	G	Η	Η	Η	F	G	
9.2	T+I IMMOB	F	F	F	F	G	G	F	I	I	G	G	Н	F	I	G	I	J	Н	F	Н	Н
9.3	T+I+M IMMOB	F	F	F	F	G	G	F	I	I	G	G	Н	F	I	G	I	J	Н	F	Н	
9.4	I+M+R+L IMMOB	F	F	F	F	G	G	F	Н	Н	G	G	Н	F	Η	G	Η	I	Н	F	G	
9.5	ALL FGRS IMMOB	F	F	F	F	G	G	F	Η	Η	G	G	Η	F	Η	G	Η	I	Η	F	G	
10.5	GRIP	F	F	F	F	G	G	G	Н	Н	G	Н	Н	G	Н	G	Н	J	I	G	н	
11.1	PULMONARY	F	F	G	G	G	G	G	G	Н	н	G	н	G	н	Н	н	I	I	G	н	н
11.3	HEART	F	F	G	G	н	G	G	G	н	Н	Н	Н	Н	Н	н	Н	I	I	Н	н	
11.5	RIB	F	F	G	G	G	G	G	G	Н	Н	G	Н	G	Н	Н	Н	I	I	G	Н	
12.1	SPINE	F	F	G	G	G	G	G	G	Н	G	Н	н	н	Н	I	I	J	I	Н	I	J
12.3	SPINE - PARALYS	19100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0 10	0 100	:
13.1	ABDOM - HERNIA	F	F	G	G	G	F	G	G	Н	G	н	н	Н	н	Н	н	J	Н	Н	Н	I
13.2	ABDOM ORGANS	F	F	F	F	F	F	F	F	F	F	F	F	F	F		F	F	F	F	F	
14.1	LEG AMP	F	F	G	G	G	G	G	G	I	Н	G	н	н	Н	н	I	J	I	Н	I	I
14.2	TOE AMP	F	F	G	G	G	G	G	G	I	Н	G	Н	Н	Н	Н	I	J	I	Н	I	
14.3	LEG SHORT	Е	F	Е	G	Е	Е	Е	F	G	F	F	F	F	F	G	G	Н	G	F	G	
14.4	HIP	F	F	G	G	G	G	G	G	I	н	G	н	н	н	н	I	J	I	н	I	I
14.5	KNEE, THIGH	F	F	G	G	G	G	G	G	I	Н	G	Н	Н	Н	Н	I	J	I	Н	I	
14.6	ANKLE, CALF	F	F	G	G	G	G	G	G	I	Н	G	Н	Н	Н	Н	I	J	I	Н	I	
14.7	TOE IMMOB	Е	F	Е	G	Е	Е	Е	F	G	F	F	F	F	F	G	G	Н	G	F	G	
14.8	POST-THROM	F	F	G	G	G	G	G	G	I	н	G	Н	Н	Н	Н	I	J	I	Н	I	

## **SECTION 5 - OCCUPATIONAL ADJUSTMENT**

Use this table to adjust the rating for occupation.

Locate the row upon which the standard rating appears and the column headed by the occupation variant (obtained from the Occupational Variant Table in Section 4). Record the number appearing at the intersection of this row and column. This is the rating after adjustment for occupation.

After adjusting the rating for occupation, turn to Section 6, page 6-1 to adjust for age.

						OCCL	JPATI	ONAL	ADJUSTM	ENT T	ABLE						
Standard									Standard								
Rating Percent	С	D	Е	F	G	н		J	Rating Percent	С	D	Е	F	G	н	I	J
0	0	0	0	0	0	0	0	0				<u> </u>	-	6			J
1	1	1	1	1	2	2	2	2	26	19	22	24	26	29	31	34	37
2	1	2	2	2	3	3	4	4	27	20	23	25	27	30	33	35	38
3	2	2	3	3	4	5	5	6	28	21	24	26	28	31	34	36	39
4	3	3	4	4	5	6	7	8	29	22	24	27	29	32	35	37	40
5	3	4	4	5	6	7	8	9	30	23	25	28	30	33	36	38	41
6	4	5	5	6	7	8	9	11	31	24	26	29	31	34	37	40	43
7	5	5	6	7	8	10	11	12	3 2	25	27	30	32	35	38	41	44
8	6	6	7	8	9	11	12	14	33	25	28	30	33	36	39	42	45
9	6	7	8	9	11	12	14	15	34	26	29	31	34	37	40	43	46
10	7	8	9	10	12	13	15	16	35	27	30	32	35	38	41	44	47
11	7	0	10	11	10	14	16	18	36	28	31	<u>.</u>	36	39	42	45	4.0
12	7 8	9 10	11	12	13 14	14	10	10	36	20 29	32	33 34	30	39 40	42 43	45 46	48 49
13	9	10	12	13	15	17	18	20	38	30	32	35	38	40	43 44	40	49 50
14	10	11	13	14	16	18	20	22	39	31	33	36	39	42	45	48	51
15	11	12	14	15	17	19	21	23	40	32	34	37	40	43	46	49	52
								_ •			•	•					• -
16	11	13	14	16	18	20	22	24	41	33	35	38	41	44	47	50	54
17	12	14	15	17	19	21	23	26	42	34	36	39	42	45	48	51	55
18	13	15	16	18	20	22	24	27	43	35	37	40	43	46	49	52	56
19	14	15	17	19	21	24	26	28	44	36	38	41	44	47	50	53	57
20	15	16	18	20	22	25	27	29	4 5	36	39	42	45	48	51	54	58
										_						_	
21	16	17	19	21	23	26	28	31	46	37	40	43	46	49	52	55	59
22	16	18	20	22	24	27	29	32	47	38	41	44	47	50	53	56	60
23	17	19	21	23	26	28	31	33	48	39	42	45	48	51	54	57	61
24	18	20	22	24	27	29	32	34	49	40	43	46	49	52	55	58 50	62
2 5	18	21	23	25	28	30	33	36	50	41	44	47	50	53	56	59	62

						OCCL	JPATI	DNAL	ADJUSTM	ENT T	ABLE						
Ctondord									Ctoudoud								
Standard Rating									Standard Rating								
Percent	С	D	Е	F	G	н	I	J	Percent	С	D	Е	F	G	н	I	J
					-			-						-			
51	42	45	48	51	54	57	60	64	76	68	70	73	76	78	80	82	84
52	43	46	49	52	55	58	61	65	77	69	71	74	77	79	81	83	85
53	44	47	50	53	56	59	62	65	78	70	72	75	78	80	82	84	86
54	45	48	51	54	57	60	63	66	79	71	74	76	79	81	83	84	86
55	46	49	52	55	58	61	64	67	80	72	75	77	80	82	83	85	87
5.0	47	5.0	<b>F</b> 0	5.0	50	<u> </u>	0.5	<u> </u>		70	7.0	7.0	0.4	0.0	0.4	0.0	0.0
56 57	47 48	50 51	53 54	56 57	59 60	62	65 66	68 69	8 1 8 2	73 74	76 77	78 79	81 82	83 84	84 85	86	88
57 58	40 49	51	54 55	57 58	61	63 64	67	69 70	83	74	78	79 81	o∠ 83	84 84	86	87 87	88 89
59	49 50	53	56	59	62	65	68	70	84	70	79	82	84	85	87	88	90
60	51	54	57	60	63	66	69	72	85	78	81	83	85	86	88	89	90
6 1	52	55	58	61	64	67	69	72	86	79	82	84	86	87	89	90	91
6 2	53	56	59	62	65	68	70	73	87	81	83	85	87	88	89	90	92
63	54	57	60	63	66	69	71	74	88	82	84	86	88	89	90	91	92
64	55	58	61	64	67	69	72	75	89	84	85	87	89	90	91	92	93
6 5	56	59	62	65	68	70	73	76	90	85	87	88	90	91	92	93	94
	<b>F 7</b>	<u> </u>	<u> </u>	0.0	<u> </u>	74	7 4			0.0	0.0	• •	0.4	0.0	0.0	0.0	0.4
66 67	57 58	60 61	63 64	66 67	69 70	71 72	74 75	77 77	91 92	86 88	88 89	89 91	91 92	92 93	93 93	93 94	94 95
68	58 59	62	65	68	70	73	76	78	92	89	89 91	91	92 93	93 94	93 94	94 95	95 96
69	60	63	66	69	71	74	76	79	94	91	92	93	93 94	95	95	96	96
70	61	64	67	70	72	75	77	80	95	93	93	94	95	96	96	97	97
				. •		. 0										- '	• •
71	62	65	68	71	73	76	78	80	96	94	94	95	96	96	97	98	98
7 2	63	66	69	72	74	77	79	81	97	95	96	96	97	97	98	98	98
7 3	65	67	70	73	75	77	79	82	98	97	97	98	98	98	98	98	99
74	66	68	71	74	76	78	80	83	99	98	99	99	99	99	99	100	100
7 5	67	69	72	75	77	79	81	83	100	100	100	100	100	100	100	100	100

# **SECTION 6 - AGE ADJUSTMENT**

Use this table to modify the rating for age.

Locate the row on which the rating (already adjusted for occupation using Section 5) appears, and the column headed by the age at time of injury. Record the number appearing at the intersection of the row and column. This is the rating adjusted for both occupation and age.
				AGE A	T TIME OF I	NJURY				
	21 and	22 - 26	27 - 31	32 - 36	37 - 41	42 - 46	47 - 51	52 - 56	57 - 61	62 and
Rating	under									over
1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	3	3	3
3	2	2	3	3	3	3	3	4	4	4
4	3	3	3	4	4	4	5	5	5	6
5	4	4	4	5	5	5	6	6	6	7
6	5	5	5	6	6	6	7	7	8	8
7	5	6	6	7	7	8	8	9	9	10
8	6	6	7	7	8	9	9	10	10	11
9	7	7	8	8	9	10	10	11	12	12
10	8	8	9	9	10	11	11	12	13	13
11	8	9	10	10	11	12	13	13	14	15
12	9	10	10	11	12	13	14	15	15	16
13	10	11	11	12	13	14	15	16	16	17
14	11	11	12	13	14	15	16	17	18	19
15	12	12	13	14	15	16	17	18	19	20
16	12	13	14	15	16	17	18	19	20	21
17	13	14	15	16	17	18	19	20	21	22
18	14	15	16	17	18	19	20	21	23	24
19	15	16	17	18	19	20	22	23	24	25
20	16	17	18	19	20	21	23	24	25	26
21	17	18	19	20	21	22	24	25	26	27
22	17	18	20	21	22	23	25	26	28	29
23	18	19	20	22	23	24	26	27	29	30
24	19	20	21	23	24	25	27	28	30	31
25	20	21	22	24	25	27	28	29	31	32

				AGE A	T TIME OF I	NJURY				
	21 and	22 - 26	27 - 31	32 - 36	37 - 41	42 - 46	47 - 51	52 - 56	57 - 61	62 and
Rating	under									over
26	21	22	23	25	26	28	29	31	32	33
27	22	23	24	26	27	29	30	32	33	35
28	23	24	25	27	28	30	31	33	34	36
29	24	25	26	28	29	31	32	34	36	37
30	24	25	27	28	30	32	33	35	37	38
31	25	26	28	30	31	33	35	36	38	39
32	26	27	29	31	32	34	36	37	39	40
33	27	28	30	32	33	35	37	38	40	42
34	28	29	31	33	34	36	38	39	4 1	43
35	29	30	32	34	35	37	39	4 1	42	44
36	30	31	33	35	36	38	40	42	43	45
37	31	32	34	36	37	39	41	43	44	46
38	32	33	35	37	38	40	42	44	46	47
39	33	34	36	38	39	41	43	45	47	48
40	34	35	37	39	40	42	44	46	48	50
41	35	36	38	40	41	43	45	47	49	51
42	36	37	39	41	42	44	46	48	50	52
43	36	37	39	41	43	45	47	49	51	53
44	37	38	40	42	44	46	48	50	52	54
45	38	39	4 1	43	45	47	49	51	53	55
46	39	40	42	44	46	48	50	52	54	56
47	40	4 1	43	45	47	49	51	53	55	57
48	41	42	44	46	48	50	52	54	56	58
49	42	43	45	47	49	51	53	55	57	59
50	43	44	46	48	50	52	54	56	58	60

				AGE A	T TIME OF I	NJURY				
	21 and	22 - 26	27 - 31	32 - 36	37 - 41	42 - 46	47 - 51	52 - 56	57 - 61	62 and
Rating	under									over
51	44	45	47	49	51	53	55	57	59	61
5 <i>2</i>	45	46	48	50	52	54	56	58	60	62
53	46	47	49	51	53	55	57	59	61	63
54	47	48	50	52	54	56	58	60	62	64
55	48	49	51	53	55	57	59	61	63	65
56	49	50	52	54	56	58	60	62	64	66
57	50	51	53	55	57	59	61	63	65	67
58	51	53	55	57	58	60	62	64	66	68
59	52	54	56	58	59	61	63	65	67	69
60	53	55	57	59	60	62	64	66	68	70
61	54	56	58	60	61	63	65	67	69	71
62	55	57	59	61	62	64	66	68	69	71
63	57	58	60	62	63	65	67	69	70	72
64	58	59	61	63	64	66	68	70	71	73
65	59	60	62	64	65	67	69	71	72	74
66	60	61	63	65	66	68	70	72	73	75
67	61	62	64	66	67	69	70	72	74	76
68	62	63	65	67	68	70	71	73	75	77
69	63	64	66	68	69	71	72	74	76	78
70	64	65	67	69	70	72	73	75	76	78
71	65	66	68	70	71	73	74	76	77	79
72	66	67	69	71	72	74	75	77	78	80
73	68	69	70	72	73	75	76	78	79	81
74	69	70	71	73	74	76	77	79	80	82
75	70	71	72	74	75	77	78	80	81	83

				AGE AT	T TIME OF I	NJURY				
	21 and	22 - 26	27 - 31	32 - 36	37 - 41	42 - 46	47 - 51	52 - 56	57 - 61	62 and
Rating	under									over
76	71	72	73	75	76	78	79	80	82	83
77	72	73	74	76	77	79	80	81	82	84
78	73	74	75	77	78	80	81	82	83	85
7 <b>9</b>	74	75	76	78	79	81	82	83	84	86
80	76	77	78	79	80	81	82	84	85	86
81	77	78	79	80	81	82	83	85	86	87
<i>82</i>	78	79	80	81	82	83	84	86	87	88
<i>83</i>	79	80	81	82	83	84	85	86	87	89
84	80	81	82	83	84	85	86	87	88	89
85	81	82	83	84	85	86	87	88	89	90
86	83	83	84	85	86	87	88	89	90	91
87	84	85	85	86	87	88	89	90	91	92
88	85	86	86	87	88	89	90	91	91	92
89	86	87	87	88	89	90	91	91	92	93
90	88	88	89	89	90	91	91	92	93	93
91	89	89	90	90	91	92	92	93	94	94
9 <i>2</i>	90	90	91	92	92	93	93	94	94	95
93	91	92	92	93	93	94	94	95	95	96
94	92	93	93	94	94	95	95	95	96	96
95	94	94	94	95	95	96	96	96	97	97
96	95	95	95	96	96	96	97	97	97	98
97	96	96	97	97	97	97	97	98	98	98
98	97	98	98	98	98	98	98	98	99	99
99	99	99	99	99	99	99	99	99	99	99
100	100	100	100	100	100	100	100	100	100	100

## **SECTION 7 - APPENDICES**

Disabilities can occur in so many varying degrees that the inclusion of all variations in the "Disabilities and Standard Ratings" section would make the body of the Schedule cumbersome. Therefore, tables covering such variations have been included in the Appendix. These tables are an integral part of the Schedule.

#### A. - Tables and Procedures

1.	Eyes - Diplopia and Visual Field Reduction7-2
	Eyes - Bilateral Reduction of Vision
2.	Shoulder - Limitation of Motion
3.	Finger - Limitation of Motion
4.	Hand - Reduction of Grip Strength7-6
5.	Leg - Shortening
6.	Hip - Limitation of Motion
7.	Knee - Limitation of Motion7-9
8.	Thigh and Calf - Atrophy7-10
9.	Percent to Fraction Conversion7-11

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B. - Combining Multiple Disabilities

Rules for Combining Disabilities Involving Different Parts of the Body7-12
Rules for Combining Disabilities in a Single Extremity7-12
Rules for Combining Bilateral Disabilities7-13
Multiple Disabilities Table7-15

### Table 1A - EYES - DIPLOPIA (Disability No. 2.511)

#### Meridian

	Weighted Value
Superior	10%
Superior Nasal	10%
Nasal	30%
Inferior Nasal	30%
Inferior	80%
Inferior Temporal	30%
Temporal	30%
Superior Temporal	10%

Table 1A Instructions:

- 1. Determine the meridians in which double vision occurs.
- 2. Add the weighted values for each affected meridian. Total cannot exceed 100%.
- 3. Convert resulting percentage to a fraction using Table 9 on page 7-11, and apply to Disability 2.511.

# Table 1B - EYES - VISUAL FIELD REDUCTION (Disability Nos. 2.621, 2.623)

### Meridian

	Maximum Degrees
Superior	45
Superior Nasal	55
Nasal	60
Inferior Nasal	50
Inferior	65
Inferior Temporal	85
Temporal	85
Superior Temporal	55
Total	500

Table 1B Instructions:

- 1. Determine degrees of visual field lost in each meridian subject to indicated maximums.
- 2. Total degrees of loss and divide by 500.
- 3. Convert resulting percentage to a fraction using Table 9 on page 7-11, and apply to Disability 2.62-.

	Reduction	n of vision in	poorer eye	:							
Reduction in vision of better eye:	20/30	20/40	20/50	20/60	20/70	20/80	20/100	20/125	20/150	20/200	Enuclea- tion
20/30	11	13	15	17	19	22	24	28	31	33	38
20/40		21	23	25	27	29	31	34	37	40	45
20/50			29	31	33	35	38	40	43	47	52
20/60				36	38	40	43	46	49	52	57
20/70					45	47	50	53	56	59	64
20/80						52	55	58	61	64	69
20/100							64	67	70	73	78
20/125								76	79	82	87
20/150									88	91	96
20/200										100	100
Enuclea- tion											100

# Table 1C - Eyes - Bilateral Reduction of Vision<br/>(Disability No. 2.313)

Table 1C Instructions:

- 1. Determine the row containing the reduction in vision of the better eye and the column containing the reduction in vision of the poorer eye.
- 2. The intersection of the row and column contains the standard rating for the reduction in vision of both eyes. Adjust the standard rating for occupation and age.

## Tables 2A and 2B - SHOULDER - LIMITATION OF MOTION (Disability Nos. 7.311, 7.312, 7.331, 7.332)

Table 2A - Motion greater than or equal to 90°

	Weighted	
Average arc of abduction and forward flexion from side of body	Percentage Loss	Fraction
165°	0	0
160°	5	1/20
155°	6	1/17
150°	7	1/14
145°	14	1/7
140°	20	1/5
135°	27	1/4
130°	33	1/3
125°	42	2/5
120°	50	1/2
115°	59	3/5
110°	67	2/3
105°	75	3/4
100°	83	5/6
95°	92	9/10
90°	100	1

Table 2A Instructions:

If the average active motion of forward flexion and abduction of the injured shoulder is 90 degrees or greater, use Table 2A and apply the corresponding fraction to Disability 7.33- after adjustment for occupation and age. Table 2B - Motion less than 90°

Average arc of abduction and forward flexion from side of body	Weighted Percentage Loss	Fraction
85°	8	1/20
80°	15	3/20
75°	24	1/4
<b>70</b> °	33	1/3
65°	42	2/5
60°	50	1/2
55°	59	3/5
50°	67	2/3
45°	75	3/4
40°	83	5/6
35°	92	9/10
30°or Less	100%	1

Table 2B Instructions:

If the average active motion of abduction and forward flexion of injured shoulder is less than 90 degrees, apply fraction from Table 2B to the difference between rating for Disability 7.31- and 7.33-. Add the result to the rating for Disability 7.33- after adjustment for occupation and age.

# Table 3 - FINGER - LIMITATION OF MOTION<br/>(Disability No. 9.)

Partial limitation of motion of fingers:

- (A) Determine first the rating for complete immobility of the finger and adjust for occupation and age.
- (B) Note the distance by which the finger or fingers fail to touch the mid-palm, on active motion.
- (C) Refer to chart below, and apply fraction to rating determined under step (A). For example, if the finger fails to touch the mid-palm by 1 1/2 inches, take 2/3 of the rating for immobility of the finger .

Distance by which the tip of the finger fails to touch the mid-palm (in inches)	Fraction
Barely Touching	1/5
From 1/4 to 1/2	1/4
From 5/8 to 3/4	1/3
From 7/8 to 1 1/4	1/2
From 1 3/8 to 2	2/3
From 2 1/8 to 2 1/2	3/4
From 2 5/8 to 2 7/8	5/6
3 Inches and Over	1

Loss of extension of the proximal joint (15<sup>or</sup> more), middle joint (20 or more) or distal joint (25 ° or more), is ratable disability. When extension loss is in addition to limited flexion, the fraction from the chart above may be increased. In addition to limited flexion, consideration should be given to the total loss of motion in the joints. If there is almost complete loss of extension in the proximal joint (50° r more) or the middle joint (70° r more), it will be considered an immobile finger, regardless of the distance by which the tip fails to touch the palm of the hand.

If a digit is held in marked contraction, rate the disability equal to the complete loss of the finger, and also give consideration to the effect on the use of the hand as a whole, on the ability to grasp objects, and on the grip strength of the hand.

# Table 4 - HAND - REDUCTION OF GRIP STRENGTH<br/>(Disability Nos. 10.511, 10.512)

Percentage of grip strength lost	Fraction
10%	0
15	1/20
20	1/12
25	1/8
30	1/6
35	1/5
40	1/4
45	3/10
50	1/3
55	2/5
60	4/9
65	1/2
70	3/5
75	2/3
80	3/4
85	4/5
90	5/6
95	1

Table 4 instructions:

- 1. Calculate percentage of reduction of grip strength.
- 2. Round to the appropriate percentage loss in Table 4.
- 3. Apply corresponding fraction to Disability 10.51- after adjustment for occupation and age.

# Table 5- LEG - SHORTENING (Disability No. 14.311)

Amount of shortening (in inches)	Fraction
Less than 1/2	0
1/2	1/10
3/4	1/4
1	1/3
1 1/4	1/2
1 1/2	2/3
1 3/4	4/5
2	1
2 1/4	1 1/8
2 1/2	1 1/3
3	1 1/2

Table 5 Instructions:

- 1. Determine amount of shortening of leg.
- 2. Refer to Table 5 for corresponding fraction.
- 3. Apply fraction to Disability 14.311 after adjustment for occupation and age.

# Tables 6A and 6B - HIP - LIMITATION OF MOTION (Disability No. 14.411)

## **Table 6A - Hip Flexion**

Arc of Motion	Weighted Percentage of Loss	Fraction
120°	0%	0
115°	5	1/20
110°	10	1/10
105°	15	1/7
100°	20	1/5
95°	27	1/4
90°	33	1/3
85°	37	3/8
80°	40	2/5
75°	43	4/9
70°	45	4/9
65°	48	1/2
60°	50	1/2
55°	55	5/9
50°	60	3/5
45°	65	2/3
40°	70	7/10
35°	80	4/5
30°	90	9/10
25°	95	1

Table 6B- Relative Values of Various Motions:

Motion	Weight
Flexion	100%
Extension	30
Abduction	10
Adduction	10
Internal Rotation	10
External Rotation	10

Tables 6A and 6B Instructions:

- 1. Weight percentage loss of motions.
- 2. Total weighted percentage losses.
- 3. Convert resulting percentage to a fraction using Table 9 on page 7-11, and apply to Disability 14.411 after adjustment for occupation and age.

# Tables 7A and 7B - KNEE - LIMITATION OF MOTION (Disability No. 14.511)

Table 7A- Knee Flexion

Arc of Motion	Weighted Percentage	Fraction
	of Loss	
140°	0%	0
135°	5	1/20
130°	10	1/10
125°	15	1/9
120°	20	1/5
115°	25	1/4
110°	30	3/10
105°	35	1/3
100°	40	2/5
95°	45	4/9
90°	50	1/2
85°	55	5/9
80°	60	3/5
75°	64	5/8
70°	67	2/3
65°	69	7/10
60°	70	7/10
55°	73	3/4
50°	74	3/4
45°	75	3/4
40°	80	4/5
35°	85	5/6
30°	90	9/10
25°	95	1

Table 7B - Knee Extension

Degree Lost	Weighted Percentage of Loss	Fraction				
<b>0</b> °	0%	0				
5°	5	1/20				
6°	8	1/12				
<b>7</b> °	11	1/9				
<b>8</b> °	14	1/7				
<b>9</b> °	17	1/6				
10°	20	1/5				
11°	22	1/5				
12°	24	1/4				
13°	26	1/4				
14°	28	3/10				
15°	30	3/10				
20°	40	2/5				
25°	50	1/2				
30°	60	3/5				
35°	65	2/3				
40°	70	7/10				
45°	85	5/6				
50°	100	1				

Tables 7A and 7B Instructions:

- 1. Take the larger found in Tables 7A and 7B.
- 2. Add approximately 1/2 of the smaller.
- 3. Convert resulting percentage to a fraction using Table 9 on page 7-11, and apply to Disability 14.511 after adjustment for occupation and age.

Inches Atrophy	Fraction
3	1 1/2
2 1/2	1 1/3
2 1/4	1 1/8
2	1
1 3/4	7/8
1 1/2	3/4
1 1/4	3/5
1	1/2
3/4	1/3
1/2	1/5

Table 8A instructions:

- 1. Compare circumferential measurements of thighs at mid-thigh level to determine amount of atrophy.
- 2. Round difference to nearest quarter inch.
- 3. Apply corresponding fraction to Disability 14.531 after adjustment for occupation and age.

Inches Atrophy	Fraction
3	1 1/2
2 1/2	1 1/3
2 1/4	1 1/8
2	1
1 3/4	7/8
1 1/2	3/4
1 1/4	7/10
1	2/3
3/4	2/5
1/2	1/4

Table 8B instructions:

- 1. Compare circumferential measurements of calves at point of greatest circumference to determine amount of atrophy.
- 2. Round difference to nearest quarter inch.
- 3. Apply corresponding fraction to Disability 14.631 after adjustment for occupation and age.

Percent	Fraction	Percent	Fraction	Percent	Fraction	Percent	Fraction
1	0	26	1/4	5 1	1/2	76	3 / 4
2	0	27	1/4	52	1/2	77	3/4
3	0	28	3/10	53	5/9	78	4 / 5
4	0	29	3/10	54	5/9	79	4 / 5
5	1/20	30	3/10	55	5/9	80	4/5
6	1/17	31	3/10	56	5/9	81	4/5
7	1/14	32	1/3	57	5/9	82	4/5
8	1/12	33	1/3	58	3/5	83	5/6
9	1/11	34	1/3	59	3/5	84	5/6
10	1/10	35	1/3	60	3/5	85	5/6
11	1/9	36	3/8	6 1	3/5	86	7/8
12	1/8	37	3/8	62	5/8	87	7/8
13	1/8	38	3/8	63	5/8	88	7/8
14	1/7	39	2/5	64	5/8	89	9/10
15	1/7	4 0	2/5	65	2/3	90	9/10
16	1/6	4 1	2/5	66	2/3	91	9/10
17	1/6	4 2	2/5	67	2/3	92	9/10
18	1/5	4 3	4/9	68	7/10	93	1
19	1/5	4 4	4/9	69	7/10	94	1
20	1/5	4 5	4/9	70	7/10	95	1
21	1/5	4 6	4 / 9	7 1	7/10	96	1
22	1/5	4 7	4 / 9	72	7/10	97	1
23	1/4	4 8	1/2	73	3/4	98	1
24	1/4	4 9	1/2	74	3 / 4	99	1
25	1 / 4	50	1/2	75	3 / 4	100	1

# Table 9 - PERCENT TO FRACTION CONVERSION

Table 9 Instructions:

Use this table when directed by the Schedule to convert a percentage to a fraction.

# **COMBINING MULTIPLE DISABILITIES**

# **Rules For Combining Disabilities Involving Different Parts of the Body.**

This section is to be used when combining multiple disabilities involving different members or systems of the body; for instance, when combining disabilities in an arm with disabilities in the back or a leg. It is not to be used when combining two or more disability factors occurring in one or both arms or legs.

- 1) When combining multiple disabilities first compute the rating for each separate disability as it would rate if it stood alone.
- 2) Arrange the ratings in order of magnitude and subtract the greater disability from 100% to determine the remaining capacity.
- 3) Multiply the lesser disability by the remaining capacity and add the resulting percentage to the rating for the greater disability.
- 4) The combined rating for the two disabilities is this sum, plus 10% of the rating for the lesser disability. The final rating may not exceed 100%.
- 5) Ratings for additional disabilities can be combined successively using the same method.
- 6) The result obtained by the calculation is not necessarily to be adopted as the final rating for the combined disabilities but should serve as a guide only. The final rating will be the result of

consideration of the entire picture of disability and diminished ability to compete in an open labor market.

**Example:** Assume an employee sustains a back injury resulting in 20% permanent disability and a shoulder disability rated at 10%.

- Subtract the 20% back rating from 100% to obtain the remaining capacity: 100% - 20% = 80%.
- 2) Multiply the rating for the shoulder disability by the remaining capacity and add to the back disability:

 $10\% \times 80\% = 8\% + 20\% = 28\%.$ 

3) Add 10% of the rating for the shoulder disability to the result obtained in Step 2): 28% + 1% = 29%

The combined multiple disability rating thus becomes 29%.

## **Rules For Combining Disabilities in a Single Extremity.**

This section is to be used when combining two or more disabilities in the same arm or leg; such as, disability of the elbow, forearm and wrist of one extremity.

1) Rate each disability separately.

- 2) Take the largest single rating and add approximately 1/2 of the sum of the remaining ratings, giving consideration to scheduled ratings for the extremity, rounded to the nearest whole percent.
- Factors involving pain and other subjective disabilities may be given additional consideration, but in no case may the combined rating exceed the value for loss of the extremity.

**Example:** Injury to the right major arm resulting in limitation of motion of the elbow rating 30%, limitation of forearm rotation rating 20% and limitation of wrist motion rating 10%.

 To the greatest disability (elbow motion loss), add approximately one-half the sum of the lesser disabilities (forearm and wrist motion loss):

20% + 10% = 30% -:- 2 = 15% + 30% = 45%.

2) Consider any additional disability resulting from disabling pain or other subjective disability, bearing in mind the scheduled value for amputation of the arm.

# **Rules For Combining Bilateral Disabilities.**

This section is to be used when combining disabilities in both arms or legs; such as, disability in both knees, one shoulder and the opposite elbow, or one hip and the opposite ankle.

- 1) Separately obtain a rating for each individual joint or part, modifying the standard rating for occupation, but not for age. Total the values obtained.
- 2) By use of appropriate footnotes and tables determine the degree of loss for each joint or part. Apply any fractions indicated to the respective ratings obtained in Step 1. Total the results.
- 3) Modify the scheduled bilateral disability standard for both occupation and age.
- 4) Using the total obtained in Step 1 as the denominator and the total obtained in Step 2 as the numerator apply the resulting fraction to the rating obtained in Step 3.
- 5) If more than one factor of disability occurs in both extremities combine them in the same manner as for disabilities in a single extremity; that is, take the larger disability and add approximately 1/2 the sum of the lesser disabilities.

**Example:** Assume a 58 year old tool grinder sustains a 40% reduction of grip strength of the right (major) hand and a 30% reduction of grip strength of the left hand.

1) Modify the formula for loss of grip strength of each hand individually, modifying only for occupation, and sum the result:

Right hand - 10.511-40%-330-G-43 Left hand - 10.512-36%-330-<u>\$239</u>

- 2) Refer to Appendix A, Table 4, page 7-6 for the fractional equivalents of 40% and 30% reductions of grip strength: Right hand 40% = 1/4Left hand 30% = 1/6
- 3) Apply the fractions found in Step 2 to the values obtained in Step 1, round to the nearest whole percent, and add the results: Right hand  $43 \times 1/4 = 11$ Left hand  $39 \times 1/6 = \frac{7}{2}$
- 4) Modify the formula for loss of grip strength of both hands for occupation and age: 10.513-85%-330-G-86-90
- 5) Using the value obtained in Step 1 as the denominator and the value obtained in Step 3 as the numerator, apply the resulting fraction to the bilateral formula, rounding the result to the nearest whole percent:

18/82 (10.513-85%-330-G-86-90) 20%

#### MULTIPLE DISABILITIES TABLE

	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95
6	16	21	25	30	35	40	44	49	54	58	63	68	72	77	82	87	91	96
7	17	22	26	31	36	40	45	50	54	59	64	68	73	77	82	87	91	96
8	18	23	27	32	36	41	46	50	55	59	64	69	73	78	82	87	92	96
9	19	24	28	33	37	42	46	51	55	60	65	69	74	78	83	87	92	96
10	20	25	29	33	38	43	47	52	56	61	65	70	74	79	83	88	92	97
11		25	30	34	39	43	48	52	57	61	66	70	74	79	83	88	92	97
12		26	31	35	40	44	48	53	57	62	66	70	75	79	84	88	92	97
13		27	32	36	40	45	49	53	58	62	67	71	75	80	84	88	93	97
14		28	33	37	41	46	50	54	58	63	67	71	76	80	84	89	93	97
15		29	34	38	42	46	51	55	59	63	68	72	76	80	85	89	93	97
16			34	39	43	47	51	55	60	64	68	72	76	81	85	89	93	97
17			35	39	44	48	52	56	60	64	69	73	77	81	85	89	93	98
18			36	40	44	49	53	57	61	65	69	73	77	81	85	90	94	98
19			37	41	45	49	53	57	61	65	70	74	78	82	86	90	94	98
20			38	42	46	50	54	58	62	66	70	74	78	82	86	90	94	98
21				43	47	51	55	59	63	67	71	74	78	82	86	90	94	98
22				44	48	52	55	59	63	67	71	75	79	83	87	91	94	98
23				45	48	52	56	60	64	68	72	75	79	83	87	91	95	98
24				45	49	53	57	61	64	68	72	76	80	83	87	91	95	99
25		· · · · · · · · · · · · · · · · · · ·		46	50	54	58	61	65	69	73	76	80	84	88	91	95	99
26					51	55	58	62	66	69	73	77	80	84	88	92	95	99
27					52	55	59	63	66	70	74	77	81	84	88	92	95	99
28					52	56	60	63	67	70	74	78	81	85	88	92	96	99
29					53	57	60	64	67	70	75	78	82	85	89	92 92	96	99
30					54	58	61	65	68	72	75	79	82	86	89	92 93	96	100
					•													
31							62	65 62	69	72	76	79 70	82	86	89	93	96	100
32						59	62	66 66	69 70	73	76	79	83	86	90	93	96 07	100
33						60	63	66 67	70	73	77	80	83	87	90	93	97	100
34						61	64	67	70	74	77	80	84	87	90	94	97	100
35					•••••	61	65	68	71	74	78	81	84	87	91	94	97	100

#### **Directions:**

Locate the column headed by the larger rating, and the row commencing with the smaller rating.

The combined disability rating is located at the intersection of this row and column.

(continued on next page)

# MULTIPLE DISABILITIES TABLE (Cont.)

36		40	4 5	50	55	60	65	70	75	80	85	90	95
38	3 6	65	68	72	75	78	81	84	88	91	94	97	100
39       67       70       73       76       80       83       86       89       92       95       98       100         40       68       71       74       77       80       83       86       89       92       95       98       100         41       72       75       78       81       83       86       89       92       95       98       100         42       72       75       78       81       84       87       90       93       96       99       100         44       74       76       79       82       85       88       90       93       96       99       100         45       74       76       79       82       85       88       91       94       96       99       100         46       78       80       83       86       88       91       94       97       99       100	37	. 66	69	72	75	79	82	85	88	91	94	97	100
40       68       71       74       77       80       83       86       89       92       95       98       100         41       72       75       78       81       83       86       89       92       95       98       100         42       72       75       78       81       84       87       90       93       96       99       100         43       73       76       79       82       84       87       90       93       96       99       100         44       74       76       79       82       85       88       90       39       99       100         45       74       77       80       83       86       88       91       94       97       99       100         46       78       81       84       86       89       91       94       97       100       100         49       79       81       84       87       90       92       95       97       100       100       100       100       100       100       100       100       100       100       100       100	38	67	70	73	76	79	82	85	88	91	95	98	100
41       72       75       78       81       83       86       89       92       95       98       100         42       72       75       78       81       84       87       90       93       96       98       100         43       73       76       79       82       84       87       90       93       96       99       100         44       74       76       79       82       85       88       91       94       96       99       100         45       74       77       70       80       83       85       88       91       94       97       99       100         46       78       80       83       86       88       91       94       97       99       100         47       78       81       84       86       89       92       94       97       100       100         50       79       81       84       86       89       92       94       97       100       100       100       100       100       100       100       100       100       100       100       100	39	67	70	73	76	80	83	86	89	92	95	98	100
42       72       75       78       81       84       87       90       93       96       98       100         43       73       76       79       82       84       87       90       93       96       99       100         44       74       76       79       82       85       88       91       94       96       99       100         45       74       77       80       83       85       88       91       94       96       99       100         46       74       77       80       83       86       88       91       94       97       99       100         47       78       81       84       86       89       91       94       97       99       100         49       79       81       84       87       89       92       94       97       100       100         50       80       83       85       88       90       93       95       98       100       100       100       55       56       86       89       91       93       96       91       100       100       <	40	. 68	71	74	77	80	83	86	89	92	95	98	100
43       73       76       79       82       84       87       90       93       96       99       100         44       74       76       79       82       85       88       90       93       96       99       100         45       74       77       80       83       85       88       91       94       96       99       100         46       78       80       83       86       88       91       94       97       99       100         47       78       81       84       87       89       92       94       97       99       100         48       79       81       84       87       89       92       94       97       100       100         50       79       82       85       87       90       93       95       98       100       100         51       83       86       88       91       93       95       98       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100<	41		72	75	78	81	83	86	89	92	95	98	100
44       74       76       79       82       85       88       90       93       96       99       100         45       74       77       80       83       85       88       91       94       96       99       100         46       78       80       83       86       88       91       94       97       99       100         47       78       81       84       86       89       91       94       97       99       100         47       78       81       84       86       89       91       94       97       99       100         48       79       81       84       86       89       91       94       97       100       100         50       79       82       85       87       90       92       95       98       100       100         51       83       86       88       91       93       96       98       100       100         52       84       86       88       91       93       96       98       100       100       100       100       100       100	42		72	75	78	81	84	87	90	93	96	98	100
45       74       77       80       83       85       88       91       94       96       99       100         46       78       80       83       86       88       91       94       97       99       100         47       78       81       84       86       89       91       94       97       99       100         48       79       81       84       87       89       92       94       97       100       100         49       79       81       84       87       89       92       95       97       100       100         50       79       82       85       87       90       92       95       98       100       100         51       80       83       86       88       90       93       95       98       100       100         52       84       86       88       91       94       96       98       100       100         54       85       87       89       91       94       96       98       100       100         55       85       88       90	43		73	76	79	82	84	87	90	93	96	99	100
46       78       80       83       86       88       91       94       97       99       100         47       78       81       84       86       89       91       94       97       99       100         48       79       81       84       86       89       92       94       97       100       100         49       79       81       84       87       89       92       94       97       100       100         50       80       83       85       88       90       93       95       98       100       100         51       80       83       86       88       91       93       96       98       100       100         52       84       86       88       91       93       96       98       100       100         54       85       87       89       91       94       96       98       100       100         55       85       88       90       92       94       97       99       100       100         56       89       91       93       95       97	44		74	76	79	82	85	88	90	93	96	99	100
47       78       81       84       86       89       91       94       97       99       100         48       79       81       84       87       89       92       94       97       100       100         49       79       82       85       87       90       92       95       97       100       100         50       80       83       85       88       90       93       95       98       100       100         51       83       86       88       91       93       95       98       100       100         52       84       86       88       91       93       96       98       100       100         54       85       87       89       91       94       96       99       100       100         55       85       87       89       91       93       95       97       99       100       100         56       88       90       92       94       96       99       100       100         57       89       91       93       95       97       99       100	4 5		74	77	80	83	85	88	91	94	96	99	100
48       79       81       84       87       89       92       94       97       100       100         50       79       82       85       87       90       92       95       97       100       100         51       80       83       85       88       90       93       95       98       100       100         52       84       86       88       91       93       96       98       100       100         53       84       86       88       91       93       96       98       100       100         54       85       87       89       91       94       96       98       100       100         55       85       87       89       92       94       96       99       100       100         56       85       87       89       92       94       96       98       100       100         57       89       91       93       95       97       99       100       100         56       88       90       92       94       96       98       100       100       100 <th>46</th> <th></th> <th></th> <th>78</th> <th>80</th> <th>83</th> <th>86</th> <th>88</th> <th>91</th> <th>94</th> <th>97</th> <th>99</th> <th>100</th>	46			78	80	83	86	88	91	94	97	99	100
49       79       82       85       87       90       92       95       97       100       100         50       80       83       85       88       90       93       95       98       100       100         51       83       86       88       90       93       95       98       100       100         52       84       86       88       91       93       96       98       100       100         53       84       87       89       91       94       96       98       100       100         54       85       87       89       92       94       96       99       100       100         55       85       88       90       92       95       97       99       100       100         56       88       90       92       95       97       99       100       100         57       89       91       93       95       97       100       100       100         58       89       91       93       95       97       100       100       100         60       90<	47			78	81	84	86	89	91	94	97	99	100
50       80       83       85       88       90       93       95       98       100       100         51       83       86       88       90       93       95       98       100       100         52       84       86       88       91       93       96       98       100       100         53       84       87       89       91       94       96       98       100       100         54       85       87       89       92       94       96       99       100       100         55       85       87       89       92       94       96       99       100       100         56       85       87       89       91       93       95       97       99       100       100         57       89       91       93       95       97       99       100       100         58       89       91       93       95       97       100       100       100         59       90       92       94       96       98       100       100       100         60       93<	48			79	81	84	87	89	92	94	97	100	100
51       83       86       88       90       93       95       98       100       100         52       84       86       88       91       93       96       98       100       100         53       84       86       88       91       94       96       98       100       100         54       85       87       89       92       94       96       99       100       100         55       85       87       89       92       94       97       99       100       100         56       85       88       90       92       95       97       99       100       100         57       89       91       93       95       97       99       100       100         58       89       91       93       95       97       99       100       100         58       89       91       93       95       97       100       100       100         59       90       92       94       96       98       100       100       100         60       90       92       94       96<	49			79	82	85	87	90	92	95	97		
52       84       86       88       91       93       96       98       100       100         53       84       87       89       91       94       96       98       100       100         54       85       87       89       92       94       96       99       100       100         55       85       87       89       92       94       96       99       100       100         56       85       88       90       92       94       97       99       100       100         57       89       91       93       95       97       99       100       100         58       88       90       92       94       96       98       100       100         58       89       91       93       95       97       99       100       100         58       90       92       94       96       98       100       100       100         59       90       92       94       96       98       100       100       100         60       93       95       97       99       100	50			80	83	85	88	90	93	95	98	100	100
53       84       87       89       91       94       96       98       100       100         54       85       87       89       92       94       96       99       100       100         55       85       87       89       92       94       97       99       100       100         56       85       88       90       92       95       97       99       100       100         57       89       91       93       95       97       99       100       100         58       89       91       93       95       97       99       100       100         58       89       91       93       95       97       100       100       100         58       89       91       93       95       97       100       100       100         59       90       92       94       96       98       100       100       100         60       90       92       94       96       98       100       100       100         61       93       95       97       99       100	51				83	86	88	90	93	95	98	100	100
54       85       87       89       92       94       96       99       100       100         55       85       88       90       92       94       97       99       100       100         56       88       90       92       95       97       99       100       100         57       89       91       93       95       97       99       100       100         58       89       91       93       95       97       99       100       100         58       89       91       93       95       97       100       100       100         59       90       92       94       96       98       100       100       100         60       90       92       94       96       98       100       100       100         61       92       94       96       98       100       100       100       100         62       93       95       97       99       100       100       100       100         63       94       96       97       99       100       100       100	52				84	86	88	91	93	96	98	100	100
55       85       88       90       92       94       97       99       100       100         56       88       90       92       95       97       99       100       100         57       89       91       93       95       97       99       100       100         58       89       91       93       95       97       100       100       100         59       90       92       94       96       98       100       100       100         60       90       92       94       96       98       100       100       100         61       92       94       96       98       100       100       100         62       93       95       97       99       100       100       100         63       93       95       97       99       100       100       100         64       94       96       97       99       100       100       100         65       94       96       97       99       100       100       100         65       94       96       98	53				84	87	89	91	94	96	98	100	100
56       88       90       92       95       97       99       100       100         57       89       91       93       95       97       99       100       100         58       89       91       93       95       97       100       100       100         59       90       92       94       96       98       100       100       100         60       90       92       94       96       98       100       100       100         61       92       94       96       98       100       100       100         62       93       95       97       99       100       100       100         63       93       95       97       99       100       100       100         64       94       96       97       99       100       100       100         65       94       96       98       100       100       100       100         65       94       96       98       100       100       100       100         67       98       90       100       100       100 <th>54</th> <th></th> <th></th> <th></th> <th>85</th> <th>87</th> <th>89</th> <th>92</th> <th>94</th> <th>96</th> <th>99</th> <th>100</th> <th>100</th>	54				85	87	89	92	94	96	99	100	100
57	5 5				85	88	90	92	94	97	99	100	100
58       89       91       93       95       97       100       100         59       90       92       94       96       98       100       100         60       90       92       94       96       98       100       100       100         61       90       92       94       96       98       100       100       100         62       93       95       97       99       100       100       100         63       93       95       97       99       100       100       100         64       94       96       98       100       100       100       100         65       94       96       97       99       100       100       100         64       94       96       97       99       100       100       100         65       94       96       98       100       100       100       100         66       98       100       100       100       100       100       100         67       99       99       90       98       99       100       100       100<						88	90						
<b>59</b> 90       92       94       96       98       100       100 <b>60</b> 90       92       94       96       98       100       100 <b>61</b> 92       94       96       98       100       100       100 <b>62</b> 93       95       97       99       100       100       100 <b>63</b> 93       95       97       99       100       100       100 <b>64</b> 94       96       98       100       100       100 <b>64</b> 94       96       97       99       100       100       100 <b>64</b> 94       96       97       99       100       100       100       100 <b>65</b> 94       96       97       99       100       100       100       100       100 <b>66</b> 94       96       98       100       100       100       100       100 <b>67</b> 98       98       90       100       100       100       100       100 <b>68</b> 97       99       100       100	-					89	91						
60       90       92       94       96       98       100       100         61       92       94       96       98       100       100         62       93       95       97       99       100       100         63       93       95       97       99       100       100         64       94       96       97       99       100       100         65       94       96       97       99       100       100         65       94       96       97       99       100       100       100         65       94       96       97       99       100       100       100         65       94       96       97       99       100       100       100         65       94       96       98       100       100       100       100         66       98       100       100       100       100       100         67       97       98       100       100       100       100         68       97       99       100       100       100       100         69						89	91						
61       92       94       96       98       100       100         62       93       95       97       99       100       100       100         63       93       95       97       99       100       100       100         64       94       96       97       99       100       100       100         65       94       96       97       99       100       100       100         65       94       96       97       99       100       100       100         65       94       96       98       100       100       100       100         65       94       96       98       100       100       100       100         66       94       96       98       100       100       100       100         67       97       98       100       100       100       100       100         68       97       99       100       100       100       100       100         69       98       99       100       100       100       100       100         68       97       <						90		94	96		100		
62       93       95       97       99       100       100         63       93       95       97       99       100       100         64       94       96       97       99       100       100         65       94       96       97       99       100       100         65       94       96       97       99       100       100         66       94       96       98       100       100       100         67       97       98       100       100       100       100         68       97       99       100       100       100       100         69       99       100       100       100       100       100         69       99       100       100       100       100       100	60					90	92	94	96	98	100	100	100
63       93       95       97       99       100       100         64       94       96       97       99       100       100         65       94       96       97       99       100       100         66       94       96       98       100       100       100         67       97       98       100       100       100       100         68       97       99       100       100       100       100         69       98       100       100       100       100       100         69       99       100       100       100       100       100	61						92	94	96	98	100	100	100
64       94       96       97       99       100       100       100         65       94       96       98       100       100       100       100         66       96       98       100       100       100       100       100         67       97       98       100       100       100       100       100         68       97       99       100       100       100       100       100         69       98       90       100       100       100       100       100         69       99       99       100       100       100       100       100	62						93	95	97	99	100	100	100
65       94       96       98       100       100       100         66       96       98       100       100       100       100         67       97       98       100       100       100       100         68       97       99       100       100       100       100         69       98       91       100       100       100       100         69       97       99       100       100       100       100	63						93	95	97	99	100		
6 6       96       98       100       100       100         6 7       97       98       100       100       100       100         6 8       97       99       100       100       100       100         6 9       97       99       100       100       100       100         6 9       97       99       100       100       100       100	64						94	96	97		100		
67       97       98       100       100       100         68       97       99       100       100       100       100         69       98       99       100       100       100       100	6 5						94	96	98	100	100	100	100
68       97       99       100       100       100         69       98       99       100       100       100	6 6							. 96	98	100	100	100	100
<b>69</b>	67							. 97	98	100	100	100	100
	6 8							. 97	99	100	100	100	100
<b>70</b>	69							. 98	99	100	100	100	100
	70							. 98	100	100	100	100	100