Développment of a Salary Scale for Salaried and Supervisory
Positions through Job Evaluation Methods

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TABLE OF CONTENTS

ACKNOWLEDGMENTS................................................................. iii
EXPLANATION OF TERMS USED................................................ vi

INTRODUCTION:

Definition of Job Evaluation.............................................. 1
General Objectives............................................................... 3
Need for Job Evaluation....................................................... 4
General Procedure.............................................................. 6

DISCUSSION:

Selection of Typical Company for Actual Case Study 12
Comparison of Point System and Factor Comparison System...... 12
Defining the Factors and Developing Forms......................... 16
Job Analysis Survey............................................................ 18
Selection of Key Jobs........................................................... 20
Factor Ranking of Tentative Key Jobs................................. 21
Salary Allocation to Tentative Key Jobs............................... 22
Elimination of Non-Conforming Jobs................................. 24
Formulation of Job Comparison Scale................................. 24
Ranking of Remaining Jobs.................................................. 25
Completion of Job Comparison Scale.................................... 26
Checking Results.............................................................. 27

CONCLUSIONS................................................................. 30

BIBLIOGRAPHY................................................................. 36
### TABLE OF CONTENTS (CONT'D)

<table>
<thead>
<tr>
<th>APPENDIX A:</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1. Organization Chart of Auto-Soler Co....</td>
<td>37</td>
</tr>
<tr>
<td>Figure 2. Definition of Factors</td>
<td>38</td>
</tr>
<tr>
<td>Figure 3. Factor Ranks Assigned to Tentative Key Jobs</td>
<td>39</td>
</tr>
<tr>
<td>Figure 4. Monetary Allocation to Tentative Key Jobs</td>
<td>40</td>
</tr>
<tr>
<td>Figure 5. Monetary Allocation and Corresponding Rank per Factor</td>
<td>41</td>
</tr>
<tr>
<td>Figure 6. Comparison of Factor Ranking and Monetary Ranking</td>
<td>42</td>
</tr>
<tr>
<td>Figure 7. Comparison of Factor Ranking and Monetary Ranking After Three Tentative Key Jobs Are Eliminated</td>
<td>43</td>
</tr>
<tr>
<td>Figure 8. Comparison of Factor Ranking and Monetary Allocation After Three Tentative Key Jobs Are Eliminated</td>
<td>44</td>
</tr>
<tr>
<td>Figure 9. Factor Ranks Assigned to Non-Key Jobs</td>
<td>45</td>
</tr>
<tr>
<td>Figure 10. Job Comparison Scale for Mental Requirements</td>
<td>46</td>
</tr>
<tr>
<td>Figure 11. Comparison Scale for Skill Requirements</td>
<td>47</td>
</tr>
<tr>
<td>Figure 12. Comparison Scale for Physical Requirements</td>
<td>48</td>
</tr>
<tr>
<td>Figure 13. Comparison Scale for Responsibility</td>
<td>49</td>
</tr>
<tr>
<td>Figure 14. Comparison Scale for Working Conditions</td>
<td>50</td>
</tr>
<tr>
<td>Figure 15. Comparison of Evaluated &amp; Present Salary</td>
<td>51</td>
</tr>
<tr>
<td>Figure 16. Scatter-Diagram with Trend Line</td>
<td>52</td>
</tr>
<tr>
<td>APPENDIX B</td>
<td>53</td>
</tr>
<tr>
<td>APPENDIX C</td>
<td>87</td>
</tr>
</tbody>
</table>
EXPLANATION OF TERMS USED

Factor---In the factor comparison method, factor refers to a combination of broad characteristics that are descriptive of a job.

Factor Comparison Method---Refers to that particular type of job evaluation where jobs are compared to each other on a factor basis in order to determine the relative position of each job in a given organization.

Factor Ranking---Refers to the procedure to comparing jobs with one another on a factor basis.

Job Analysis Questionnaire---Refers to the questionnaire filled out by employees in order to obtain specific information about a job, prior to the development of a job evaluation program.

Job Comparison Scale---Refers to the salary scale obtained by the factor comparison method of job evaluation.

Job Descriptions---Refers to the descriptions of each job compiled by the job analyst and the immediate supervisor from information obtained in the job analysis questionnaire.

Job Evaluation---Refers to a systematic and impartial method of pricing jobs, accomplished by thorough and comprehensive job analysis.

Job Specifications---Refers to the concise and tabulated information of the requirements of each job. It is compiled by the job analyst from the job analysis questionnaire.

Key Jobs---Refers to the standard of bench-mark jobs that are selected on the assumption that they are being paid an equitable and fair wage. These jobs should sample all levels of jobs from high to low and all the major functions of the organization.

Point System---Refers to that particular type of job evaluation where a definite number of points are assigned to a job according to the degree of a specific factor required by the job.

Salary or Monetary Allocation---Refers to the distribution of a job's salary among the five factors in the factor comparison method.

Trend Line---Refers to the line of best fit on the scatter-diagram of evaluated rates versus present actual rates.
DEVELOPMENT OF A SALARY SCALE FOR SALARIED AND SUPERVISORY
POSITIONS THROUGH JOB EVALUATION METHODS

INTRODUCTION

Job evaluation is a convenient name for a systematic and impartial pricing of jobs, accomplished by thorough and comprehensive job analysis. Essentially, it is a study of the relative worth of descriptive job characteristics, culminating in a standardization of base rates and the establishment of a rate structure.

Few managements that do not have a sound job evaluation program installed feel satisfied or certain about their present wage scales. Employee discontent as to wages can be traced to its two major sources:

1. Dissatisfaction with inequalities in the present rate structure, or with supposed inequalities.
2. Individual or group pressure for higher earning power.

The latter arises primarily from salesmanship on the part of individuals or from group pressure by unions. Job evaluation is primarily concerned with the former source of discontent. However, it becomes the solid foundation of a wage administration plan, which, in turn, will also elimi-
ate inequalities resulting from self-salesmanship by specifying a definite rate for a given job. It further points out to individuals and groups how they can attain larger incomes.

This distinction must be made clear. Job evaluation is not designed to stop the pressure of employees for higher earning power, for this would be disastrous because it would curtail ambition. On the contrary, job evaluation is designed to point out to employees what they must do to gain higher earning power, thereby promoting ambition.

Job evaluation is relative. That is, a job of high difficulty, skill and responsibility will be paid more than a job of low difficulty, skill and responsibility. No one can justly question the fairness of such a procedure. A company in a certain industry may have a relatively high wage scale and another one a low wage scale. If the relative relationship of job rates in the low wage scale company is correct, there is good probability that there will be employee contentment. On the other hand, if in the high wage scale company there are many wage rates out of line, discontent will result despite the fact that the wage scale as a whole is high. Workers are as keenly interested in their relative rates of compensation as in the absolute amounts of those rates. There is considerable evidence that one of the fundamental values of wage differentials is the differential of prestige it creates among workers,
quite as much as the differential of the absolute earnings themselves. Accordingly, the primary duty of a management which is attempting to set up a fair and defensible schedule of rates is to ascertain that the relative standings of all jobs are correctly determined; the secondary duty is to price each job, using a method which will be simple, objective, equitable, easily understood and stable in the results secured.

The general purpose of job evaluation is to determine the monetary value of each job in an organization. However, the primary purpose is to indicate only the relative importance of the job within the organization, unassociated to a monetary basis. The money values attached to individual jobs must of necessity vary with prosperity or depression periods, shortage or surplus of labor, and various other factors; but the relative positions of all jobs within a given organization will not change.

While job evaluation is usually thought of in connection with industrial organizations, it is certainly not limited to application in this field. The need for such a plan is just as great in other organizations such as banks, stores, utility companies, etc., as it is in the industrial field. As early as the 1920's a few progressive companies were experimenting with such plans, but the depression really accelerated these efforts (largely through the need for reduced costs) and established the job evaluation pro-
cedure as an essential tool of scientific management. The majority of industries found when they began analyzing their labor costs, that they were paying a variety of wage rates for the same kind of work. They thereby found the source of much employee discontent and resentment. Basically, the cause of such conditions was in the evolution of small companies becoming large companies. In a large organization, responsibility must be delegated to subordinates. When responsibility for wage rates is delegated to various foremen or supervisory personnel, inconsistent pay practices are the natural aftermath. Inequalities resulted from the following practices, which were indeed not unusual:

1. The man who was the smoothest talker, the best self-salesman, or who squawked the loudest, got the most money.

2. The foreman was a good pal to his friends and relatives.

3. The employee "got something on his foreman" and then blackmailed him for a raise.

4. An individual's personality or some solitary super-performance record obtained continued recognition via the pay check.

5. Certain jobs carried prestige from past practices which no longer existed due to changed or improved methods.
Such practices resulted in inconsistent wage rates between employees, departments, plants and companies. No consistent cost standards could be established on such a basis. It was evident that corrective measures were needed. As previously mentioned, this was a condition found in the larger industries where responsibility had been delegated to subordinates. Therefore, the smaller the company the less probability existed for inconsistent wage rates. For as long as the rates were determined by one man, as in a "one man" company, the rates would tend to be consistent.

 Consequently, the job evaluation plans were developed and the responsibility for administering them was centralized in one individual or a small group. In this respect, companies have placed their job evaluation responsibility in Industrial Engineering Departments, Personnel Departments, or special job evaluation committees. Wherever the responsibility is delegated, it is desirable and essential for an efficient evaluation committee to consist of personnel who are familiar with the duties and responsibilities of the jobs to be evaluated. They should be respected by all personnel for their honesty and sincerity of purpose. They must be able to:

1. Write comprehensive job descriptions.
2. Sift out irrelevant matter in the descriptions.
3. Write accurate job specifications.
4. Use good judgment in evaluating jobs.
5. Substantiate the results to the personnel affected.

It is a comparatively easy task to determine whether a carpenter or a janitor should be paid the more money. No one doubts that the carpenter should receive more compensation. It is also a simple task to reason why a carpenter should be paid more money than a janitor. The probable reasons are that he has more skill, he must have more education, his training for the job is longer, etc. This, in a simplified sense, is job evaluation. But, when it comes to determining whether a carpenter or a machinist should be paid more, the task becomes more complex. To adequately and justly determine which job is entitled to the more money, the job must be analyzed by its component parts. Various jobs are broken down into various parts in the many job evaluation plans now in use. These parts are labeled as attributes, characteristics, items, etc., but in most plans they are called factors. In other words, the factors of a job should be considered when trying to determine why a particular job should be paid more or less money than another. If an individual who is not familiar with job evaluation were asked to list the factors he believes should be considered in evaluating a job, he would invariably list fifteen to thirty factors.\(^1\) In analyzing such a list, it would

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be apparent that some of the factors mentioned would be descriptive of the personnel working on the job and others would be functions of the job itself. The average individual apparently thinks of the combination of job factors and man-
factors. In evaluating any job it should be stressed that the job is being evaluated, not the personnel on the job.
Since personnel may change and the job may not change, it is obvious that personnel items and job items must be separated. When this separation is made, there would be items or factors to use in evaluating jobs, and personal items to use in rewarding individuals by a merit rating system.

The number of factors in use in the various plans in existence vary anywhere from two to thirty. Most point systems employ between ten to fifteen factors whereas the factor comparison method, as used herein, is based on a standard of five factors. The number of factors, within limits, is immaterial; the important matter is that everyone on the evaluating committee thoroughly understand the definition of each factor and what it represents.

Once the factors to be used have been determined, the next step is to devise a method of measuring the amount of each factor required for a given job. There are two chief means of making this measurement, namely, the factor comparison system, and the point system. These two systems, although different in their approach, do have definite points in common. The factor comparison method emphasizes the importance
of a job in relation to other jobs in the same organization. It is relatively easy to compare a job with others in a given factor. The total importance or value of a job is the sum of the individual job factor values. The point system credits a definite number of points for a specific job factor. The point summation for all the recognized job factors gives the total point credit for the job.

If a person were asked how much skill is required on a given job, he could not answer in terms of a mathematical figure. The determination of the amount of skill, or any other factor, required on a specific job is not a factual proposition as exists in time study work where a watch can be read and a very definite time established. However, the amount of skill can be indicated in degrees such as little, average, or considerable. It is then, undeniably, a matter of opinion as to the amount of skill actually required for a specific job. Therefore, the evaluation procedure is as accurate and consistent as the opinions of those persons making the rating. Nevertheless, experience has proven that when men are familiar with the jobs being evaluated, have a thorough understanding of the definition of each factor, know what characteristics each factor includes, and are sincere in developing a sound job evaluation program, the process of analysis and comparison is so refined that the possible error in human judgment is reduced to the point of insignificance. One industrial concern tested a "block rank-
ing system on two-hundred persons with experience ranging from experienced industrial engineers to employees not familiar with job evaluation. It was most gratifying to find that, after a preliminary explanation of the definitions regarding the measurement of the factor and by following the "key jobs" already spotted on the block ranking form, the persons invariably came to the same conclusions.²

Once the system of measurement of the factors is selected, tentative key jobs are then determined. Key jobs are absolutely essential in developing a sound plan. Key jobs or bench-mark jobs are chosen, which, in the opinion of all men on the evaluating committee, have been and are currently paid in proper relationship to each other. Of course, jobs that have grievances regarding the rates of pay, or high turnover should not be selected as key jobs. The tentative selections should sample all levels from high to low and should at the same time sample the major departments or functions of the organization. Dependent upon the number of jobs to be evaluated, it is generally best to select between twelve and twenty-five tentative key jobs, because the tests to which they are subjected will reduce this number appreciably.³ With a thorough knowledge of the

²Ibid., p.5.

selected key jobs and a consistent interpretation of the definitions of the job factors, the key jobs are ranked in relation to one another from high to low. In the factor comparison method, as used herein, the tentative key jobs are factored ranked in this manner for all five factors. The next step is to allocate the salary of each tentative key job among the five factors. The theory behind this procedure is that it serves to anchor the results into the present wage scale. At this stage, the results of the factor ranking and monetary ranking should be compiled and compared. Undoubtedly, marked individual differences in rankings will occur and these should be freely discussed by the evaluating committee, not with the intent of coercing any member who is out of line to bring his vote in line, but rather with the thought of determining how wide discrepancies could arise, and of bringing out information which might cause any member to want to change his vote. The main source of wide discrepancies will be found to be differences of concepts of such terms as responsibilities, skill, etc. Invariably, many jobs will still be out of line. Where a job is grossly overpaid or underpaid, the evaluating committee will find difficulty in allocating salaries to conform to the horizontal distribution of the present salary and the vertical alignment of the previously determined factor rankings. These overpaid and underpaid jobs must be eliminated as tentative key jobs, in order to form a job comparison scale where the job that
requires the most skill, for example, will be paid the most money for the skill factor. Finally, the remaining jobs in the organization are ranked factor by factor, a dozen or so at a time, depending upon the number to be ranked. The evaluation committee members then judge the proper relative position of the remaining jobs by comparison with each factor of the key jobs under the job comparison scale.

It is, of course, recognized that job evaluation procedures have definite limitations; they can accurately measure the amount of knowledge, the skill, the physical effort, and the responsibility required on a given job, but they cannot measure the more intangible characteristics of the individual working on the job. They cannot measure personality, character, attendance, etc. Items such as these should be graded and the employee rewarded by a sound merit rating program. Thus, a combination of job evaluation and merit rating, by providing a fair and defensible basis for the establishment of wage and salary rates, by holding out to employees stimulating hope for higher earnings, offers to management a tool of the highest utility in solving one of the most important employee-employer problems.
DISCUSSION

The objective of this thesis is the application of job evaluation principles and methods to salaried and supervisory positions.

In order to investigate the possibilities of applying job evaluation principles to the evaluation of salaried and supervisory positions, Auto-Solar Company of Atlanta was selected as a typical organization for actual case study.

The two chief means of evaluating jobs in use today are the Point System and the Factor Comparison System. Both have their advantages and disadvantages. The former method employs a block ranking procedure where the characteristics are divided into five or six degrees and points assigned to each degree of each characteristic. The total number of points used equals the total number of points assigned to the highest degree of each characteristic. This method takes a definite step toward analysis of the individual characteristics of the job, although simplicity of construction and evaluation is the foremost reason for its popularity and the outstanding advantage of this system.

Some of the more important disadvantages of this system are the following:

1. The assignment of point values for varying degrees of each factor is arbitrarily done.
In a given system, who shall say that if one point is to be allowed for a job requirement of less than six years education, then four points are correct for eight years of education and eight points correct for twelve years of education? One could with equal justification either allow one point for each year of education or apply some form of geometric progression for the number of points for additional years of education. No one knows which procedure would be correct.

2. Upper limits of the points to be assigned the several factors must be arbitrarily done. Who shall say that the highest degree of physical requirement is worth more or less than the highest degree of skill requirement and how much more or less?

3. The job analyst tends to set the value of the job rather than the job comparison. If the job analyst, for instance, decrees that the job requires a high school education, he has automatically decreed a certain number of points for the educational requirement of the job. If this analyst is consistent in his judgment, and he analyses all the jobs
to be covered in the job evaluation program, little harm will be done. But, where there is more than one analyst describing jobs, there will, invariably be as many standards of judgment as there are individuals. Therefore, a committee assigned to evaluating jobs, performs a clerical task of translating the statements prepared by the job analyst into points on the basis of a pre-determined point scale. The committee, therefore, merely perform a clerical function and not a judgment function.4

The factor comparison method, or the weighted-in money method, as it is sometimes called, selects characteristics as in the foregoing, but the usual procedure is to classify everything within five major factors, namely:

1. Mental Requirements
2. Skill
3. Physical Requirements
4. Responsibilities
5. Working Conditions

The weighting is accomplished by ranking a series of jobs on one factor at a time, thereby getting a relative posi-

4Tbid., p.13.
tion of a job's worth, and then applying a monetary scale to the various positions of each job, for each of the five factors. When the jobs have been ranked and the scale applied for all five factors, it is only necessary to add the amounts applied to each factor for a specific job and the sum is the evaluated rate for that job. The only disadvantage of this system is that, as the wage levels change in a community, the evaluated rates must be changed accordingly. This is not a serious disadvantage because the more important factor of relative importance of a job within an organization remains the same regardless of economic conditions. The rates could be readily changed by the simple application of a multiplier to the present rates. The advantages of the factor comparison method are numerous:

1. It obviates the step of translating from points to money.
2. It allows unlimited room at the top for exceptional worth, and therefore is readily adaptable to salaried and supervisory personnel.
3. A single multiplier can be used to keep the whole structure up to date, provided the relative importance of jobs does not change.
4. It insures close adherence to the all important relative worth of each job in an organization. This is its surest virtue.
Accordingly, the factor comparison method was chosen for investigating the possibilities of applying job evaluation principles to supervisory and salaried positions because it evaluates a job on a comparative basis and allows unlimited room at the top of the scale; the latter is essential in evaluating these type positions.  

An organization chart of the company as indicated in Figure 1, (Appendix A) clearly shows the supervisory positions to be evaluated. These positions, including salaried workers, ranged from Secretary to Vice-Presidents, inclusive. The jobs to be evaluated are listed below and will hereafter be referred to by designated letters as follows.

A-Vice President-Sales  
B-Standards & Planning Engineer  
C-Time Study Engineer  
D-Office Manager  
E-Engineering Draftsman  
F-Receptionist & Telephone Operator  
G-Senior Clerk-Accounting Department  
H-Senior Cost Clerk-Engineering Department  
I-Bookkeeper  
J-Accounting Clerk  
K-Mail & File Clerk  
L-Transcribing Machine Operator  
M-Stenographer-Typist  
N-General Office Clerk  
O-Secretary-Engineering Department  
P-Secretary-Production Department  
Q-Receiving Clerk  
R-Vice President-Manufacturing  
S-Industrial Engineer  
T-Assistant Vice President-Sales  
U-Advertising Manager

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V-Secretary & Treasurer
W-Export Manager
X-Comptroller
Y-Purchasing Agent
Z-General Factory Superintendent
IA-Assistant Treasurer
IB-Schedule & Time Clerk
IC-Manager, Parts Department
ID-Service Manager
IE-Manager, Mail & File Department
IF-Shipping Superintendent
IG-Secretary-Sales

Before beginning the work of a job survey, the factors to be used in evaluating the jobs were clearly defined.

Accordingly, Figure 2 gives the definitions of the five factors. Some of the characteristics of the factors, such as leadership, independent decisions and initiative under "Skill"; contacts with officers of the company, customers, and vendors under "Responsibilities", have been advocated by E. E. Warren⁶ and John H. Dikenberg.⁷ Definitions were worked out in conjunction with the preparation of forms to be used in the survey.

It is of utmost importance that all members working on the job evaluation program clearly understand and be able to distinguish between such terms as skill, mental requirements, responsibilities, etc. Otherwise, what one person regards as skill another might regard as a mental requirement and still another might regard as a responsibility. It is not so important

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that certain sub-items be classified under a particular factor as it is that all members of the evaluating committee adopt the same concept for each of the factors; that is, they should have in mind the same characteristics when discussing mental requirements, skill, physical requirements, responsibility and working conditions. To cite an example of the distinction to be made between the five factors, consider the receiving clerk in the shipping department. This job has some mental requirements in that the clerk must have a high school education; he must count the various parts of incoming shipments. The work further involves certain skills such as using materials handling equipment, and storing so as to avoid congestion. Certainly, there are high physical requirements in the manual handling of freight. The job has definite responsibilities for the material handling equipment and for keeping inventory records. Finally, the working conditions under which the job is performed must be taken into account. In the winter, the shipping room is subject to extreme cold; in summer, extreme heat; it is always noisy and congested. Here are five distinct aspects of one job.

The forms to be used in the work were prepared concurrently with the setting up of exact definitions. Since there are five chief evaluating factors, the job specification form was divided into five parts, one for each factor in order to facilitate the evaluation process. The principal forms used were the following:
1. Job Analysis Questionnaire

2. Job Description

3. Job Specification

The job analysis questionnaire is used to record the original data and from it the job description and job specification forms were completed. The job analysis form was made out by the employee on the job with the assistance of the job analyst who clarified any dubious statements. The questionnaires were then reviewed by the immediate supervisor. Based upon the data gathered by the questionnaire, the job description and job specification were prepared. In regard to content, the job description and job specification contain much the same information as the questionnaire, however in a different arrangement. The job description (See Appendix B) records the main function and basic duties of the job. The job specification (See Appendix C) records these duties and other requirements of the job in tabular form according to the five basic factors. The job evaluation committee consisted of: Mr. C. E. Redfern, Planning Engineer, Mr. E. H. Johnson, Standards Engineer, both of Auto-Solar Company and the author. A sufficient number of specifications were then typed, one of each job for each committee member. Messrs. Redfern and Johnson ranked each job once and the author ranked each job three times.

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times. The author ranked the jobs at three different intervals rather than successively in order to obviate the influence of a previous ranking. At this point the job evaluation process commences.

The key job comparison scale is the heart of the job comparison method. The primary object of any job evaluation study should be to determine the relative standing of all jobs in the organization. The factor comparison method accomplishes this by making job-to-job comparison according to each of the five major factors. The committee selected seventeen tentative key jobs, with the premonition that this number would be reduced because of the tests to which these jobs would be subjected. The selections (1) sampled all job levels from high to low, (2) sampled the major functions of the organization, (3) were made from jobs whose rates compared favorably to similar jobs in the locality. The following were selected as tentative key jobs:

A-Vice President-Sales
B-Standards & Planning Engineer
C-Time Study Engineer
D-Office Manager
E-Engineering Draftsman
F-Receptionist & Telephone Operator
G-Senior Clerk-Accounting Department
H-Senior Cost Clerk-Engineering Department
I-Bookkeeper
J-Accounting Clerk
K-Mail & File Clerk
L-Transcribing Machine Operator
M-Stenographer-Typist
N-General Office Clerk
O-Secretary-Engineering Department
P-Secretary-Production Department
Q-Receiving Clerk
The seventeen key jobs were first ranked according to their mental requirements. This ranking was performed by a physical sorting of the specifications themselves, from lowest to highest. When a committeeman had arranged the specifications of the seventeen tentative key jobs according to his judgment of their mental requirements, he then recorded his entries on a data sheet. The procedure in the event of ties was to give both jobs the same ranking number. This same procedure was followed for all five factors. For example, on the first ranking, the author was unable to decide whether Job D-Secretary, Engineering Department, entailed more or less mental requirements than Job P-Secretary, Production Department, for tenth and eleventh places. They were subsequently tied by allotting each place 10.5 and, therefore, the next place utilized was twelve, (See Figure 3). This practice was followed wherever ties occurred in order that the last number used would be seventeen. If the tie occurred between the first two places, each would be accorded the number 1.5; if the tie occurred between the last two, each would be accorded the number 16.5. There were five rankings made in all; one by the Planning Engineer, one by the Standards Engineer and three by the author. The five different rankings were totaled and averaged to yield the resultant illustrated in Figure 3.

The salaries of each of the tentative key jobs were then distributed among the five factors, independent of the previous factor ranking. Some authorities advocate the use
of percentages rather than absolute money values in making the monetary distribution to tentative key jobs. However, the author found it much more satisfactory to use absolute money values since it is difficult to keep in one's mind the amount of money a percentage figure actually represents. As per example, results of the factor ranking (Figure 1) indicate Job G-Receiving Clerk required more physical exertion than Job A-Vice President-Sales. It is desirable to show this same relationship in the monetary allocation of salaries. However, if a percentage basis is used, 5% of Job A might be set aside for physical requirements and 20% of Job G for physical requirements. This is misleading because it gives the impression that more money is being set aside for Job G than Job A. Computation of the absolute money allotted in each case reveals:

Job A as receiving \((0.05)($750)\) or $37.50
Job G as receiving \((0.20)($175)\) or $35.00,

which disrupts the relative position of each job as agreed upon in the foregoing factor ranking. Hence an absolute monetary allocation creates a clearer and truer picture of the actual distribution of money. The author made the monetary allocation to each of the five factors of each job at three spaced intervals, also, in order to avoid being influenced by the money distribution of a previous ranking. The results at each interval were then compared with the results of the factor ranking. There were many changes
and compromises at this stage since it was not only necessary to satisfy the horizontal distribution of salary so that the total money distributed among the five factors equalled the present actual salary, but it was also necessary to satisfy the \textit{vertical} alignment of jobs so as to conform, as much as possible, to the previously agreed upon factor rankings. That is, since it was previously agreed upon that Job G was the highest in physical requirements, followed by K, N, and P, then in the allocation of rates it is important that the amount of money allowed for the physical requirements of Job G be greater than that allowed for the physical requirements of Job K, and the amount for K in turn be larger than that for N and so on. The final results of this allocation were compiled in Figure 4. Where a job is at present grossly underpaid or overpaid, it was found extremely difficult to allocate the salary within the limits of the horizontal distribution and the vertical alignment. Where a job was overpaid, for example, Job E-Engineering Draftsman, it was necessary to place in the columns \textit{more} money than seemed reasonable when considering the vertical alignment of that job with others in any given column. Similarly, where a job was underpaid, as Job K-Mail & File Clerk, it was found impossible to allocate enough money to the various columns of the five factors to support its corresponding vertical alignment in the factor ranking. Figure 5 is a compilation of the monetary allocation and the corresponding rank of each job under each
factor. Figure 6 is a comparison of the numerical factor rankings and monetary rankings. It is obvious that the factor rankings and monetary rankings do not agree. This is positive indication that some job or jobs are overpaid or underpaid. However, upon investigation, the problem solves itself; for, when three of the tentative key jobs are eliminated, the salary distribution compares favorably with the factor ranking. The jobs eliminated were

1. Job G-Engineering Draftsman, which was overpaid,
2. Job K-Mail & File Clerk, which was underpaid,
3. Job P-Secretary, Production Department, which compared almost identically to Job O-Secretary, Engineering Department.

The only discrepancy still remaining was between Job H-Senior Cost Clerk and Job I-Bookkeeper, in the "Responsibility" column. (See Figures 7 and 8.) The factor ranking indicated Job I entailed more responsibility, while the monetary allocation showed Job H superior in responsibility. Upon review of this discrepancy, the committee, by majority vote, changed its attitude toward the factor ranking and felt that the allocation of money was the correct status.

The remaining fourteen jobs were used to form the backbone of the job comparison scale, as illustrated in its final form in Figures 10-14. The remaining nineteen jobs were divided into two groups, one group of ten, and
another of nine, before applying the job comparison scale. Each job in each group was factor ranked for mental requirements in the same manner as the tentative key jobs were factor ranked. This facilitated application of the job comparison scale because then nine or ten job specifications could be compared to the specifications of the key jobs at one time. The jobs were then inserted into the job comparison scale for mental requirements in their proper relative position. The jobs were then re-ranked according to skill and the comparison process carried on as before. This procedure followed for all five factors, as illustrated in Figure 9. Of course, the monetary value assigned to these jobs for each factor was obtained directly from the job comparison scale. In as much as the variation of viewpoints of the committee members at this stage was very small, if not insignificant, the application of the last nineteen jobs to the job comparison scale was performed solely by the author. The original key job comparison scale consisted of fourteen jobs, thus affording fourteen reference points. As the fifteenth job was evaluated and entered upon the job comparison scale, there were then fifteen reference points. Therefore, the job comparison scale in its final form had thirty-three jobs or reference points. This practice narrows the calibration or relative position between adjacent jobs and, therefore, makes the comparison of additional jobs that much easier. The ulti-
The objective of this thesis is the job comparison scale for each of the five factors as illustrated in its final form in Figures 10-14.

The key jobs are distinguished from the remaining jobs by the asterisk following said jobs under each factor of the job comparison scale.

It is well to note that when the key jobs were originally selected for inclusion in the comparison scale, it was assumed that their present rates were correct. This assumption may or may not be true; certainly the test, to which the salaries of these jobs were subjected by comparison of the salary allocation to the factor ranking and thus eliminating those out of line, would indicate that the remaining key jobs are not too far out of line with one another, if at all. If one desires, it may be well to re-evaluate the key jobs by putting them through the same process as has been done with the remaining nineteen jobs. This procedure is arbitrary and the author, for his purposes here, takes his prerogative of simply mentioning this additional procedure.

Believing it always a good policy to check one's results, there were three major checks that were applied to the results of the job evaluation study.6

---

1. Comparison of Present Total Payroll to Evaluated Total Payroll.---If the work has been well done and with tedious care, the proposed expenditure for jobs should approximate the present payroll, assuming that those, who are now overpaid, would be reduced to the evaluated rates and those, who are now underpaid, would be increased to the evaluated rate. This check is illustrated in Figure 15, which indicates that the present total salary for the thirty-three evaluated jobs is $9,755 per month; the evaluated salary is $9,530 per month. The evaluated total salary is thus $225.00 less than the present payroll per month.

2. Comparison of the Present Individual Salaries to the Evaluated Individual Salaries.---This was a finer check than that indicated in (1) above. Figure 15 indicates the evaluated salary per factor, and compares the total evaluated individual salaries to the actual individual salaries. Of course, the key jobs will have the same rate under the evaluated column as they have under the present
salary column. Excluding key jobs, there were three jobs that were not selected as key jobs whose evaluated salary and present salary were identical; there were nine jobs whose evaluated monthly salary was within $10.00 of the present monthly salary; there were thirteen jobs whose evaluated monthly salary was within $25.00 of the present monthly salary, and all but three jobs were within $50.00 of the present monthly salary. The wide discrepancy of Job V-Secretary and Treasurer's evaluated monthly salary of $247.00 less than the present monthly salary is due to the organization's policy of paying the top officials of the company a standard salary regardless of their individual duties.

3. The third check was a scatter-diagram as illustrated in Figure 16. The horizontal scale represents evaluated monthly salaries and the vertical scale represents the present actual salaries. A trend line or line of best fit is drawn in as computed by mathematical formula as follows:
Method of Least Squares\(^{10}\)

\[y = mx + b\]

- \(x\)---value of the abscissa
- \(y\)---value of the ordinate
- \(b\)---intercept of ordinate
- \(m\)---slope of the line, \(y\) divided by \(x\).

\[Total \ xy = \frac{m(x^2) + b(x)}{x}\]

\begin{align*}
\text{Job A} & \quad 14.0 & 14.0 \times b & 193.0 & 195.0 \\
\text{Job B} & \quad 7.0 & 7.0 \times b & 49.0 & 45.0 \quad (1) & 1075.7 & 1157.7 & \text{Total} & y & m(x^2) + b & \text{Total} \ y & m(x^2) \\
\text{Job C} & \quad 4.5 & 4.5 \times b & 22.5 & 22.5 & \text{Total} & y & m(x^2) + b & \text{Total} \ y & m(x^2) \\
\text{Job D} & \quad 4.0 & 4.0 \times b & 16.0 & 16.0 & \text{Total} & y & m(x^2) + b & \text{Total} \ y & m(x^2) \\
\text{Job E} & \quad 5.0 & 5.0 \times b & 22.5 & 22.5 & \text{Total} & y & m(x^2) + b & \text{Total} \ y & m(x^2) \\
\text{Job F} & \quad 2.0 & 2.0 \times b & 4.0 & 4.0 & \text{Total} & y & m(x^2) + b & \text{Total} \ y & m(x^2) \\
\text{Job G} & \quad 2.2 & 2.2 \times b & 4.8 & 4.8 & \text{Total} & y & m(x^2) + b & \text{Total} \ y & m(x^2) \\
\text{Job H} & \quad 4.0 & 4.0 \times b & 16.0 & 16.0 & \text{Total} & y & m(x^2) + b & \text{Total} \ y & m(x^2) \\
\text{Job I} & \quad 3.7 & 3.7 \times b & 13.7 & 13.7 & \text{Total} & y & m(x^2) + b & \text{Total} \ y & m(x^2) \\
\text{Job J} & \quad 2.6 & 2.6 \times b & 6.8 & 6.8 & \text{Total} & y & m(x^2) + b & \text{Total} \ y & m(x^2) \\
\text{Job K} & \quad 2.0 & 2.2 \times b & 4.4 & 4.3 & \text{Total} & y & m(x^2) + b & \text{Total} \ y & m(x^2) \\
\text{Job L} & \quad 1.7 & 1.7 \times b & 1.9 & 1.9 & \text{Total} & y & m(x^2) + b & \text{Total} \ y & m(x^2) \\
\text{Job M} & \quad 1.3 & 1.3 \times b & 3.2 & 3.2 & \text{Total} & y & m(x^2) + b & \text{Total} \ y & m(x^2) \\
\text{Job N} & \quad 2.0 & 2.0 \times b & 4.0 & 4.0 & \text{Total} & y & m(x^2) + b & \text{Total} \ y & m(x^2) \\
\text{Job O} & \quad 2.2 & 2.2 \times b & 4.4 & 4.3 & \text{Total} & y & m(x^2) + b & \text{Total} \ y & m(x^2) \\
\text{Job P} & \quad 2.2 & 2.2 \times b & 4.4 & 4.3 & \text{Total} & y & m(x^2) + b & \text{Total} \ y & m(x^2) \\
\text{Job Q} & \quad 2.2 & 2.2 \times b & 5.3 & 6.3 & \text{Total} & y & m(x^2) + b & \text{Total} \ y & m(x^2) \\
\text{Job R} & \quad 10.0 & 10.1 \times b & 101.0 & 102.0 & \text{Total} & y & m(x^2) + b & \text{Total} \ y & m(x^2) \\
\text{Job S} & \quad 10.0 & 9.9 \times b & 98.0 & 96.0 & \text{Total} & y & m(x^2) + b & \text{Total} \ y & m(x^2) \\
\text{Job T} & \quad 6.0 & 7.0 \times b & 43.0 & 47.7 & \text{Salary} & \text{Units(m)} & \text{Scale} \\
\text{Job U} & \quad 5.0 & 6.4 \times b & 35.4 & 41.1 & \text{Salary} & \text{Units(m)} & \text{Scale} \\
\text{Job V} & \quad 14.0 & 9.0 \times b & 126.0 & 81.0 & 150 & \text{Salary} & \text{Units(m)} & \text{Scale} \\
\text{Job W} & \quad 7.1 & 6.9 \times b & 48.3 & 47.6 & 200 & \text{Salary} & \text{Units(m)} & \text{Scale} \\
\text{Job X} & \quad 5.0 & 4.8 \times b & 24.0 & 23.0 & 250 & \text{Salary} & \text{Units(m)} & \text{Scale} \\
\text{Job Y} & \quad 5.0 & 5.1 \times b & 25.5 & 24.0 & 300 & \text{Salary} & \text{Units(m)} & \text{Scale} \\
\text{Job Z} & \quad 10.0 & 3.9 \times b & 39.0 & 79.1 & 350 & \text{Salary} & \text{Units(m)} & \text{Scale} \\
\text{Job L1} & \quad 5.0 & 4.6 \times b & 25.0 & 21.2 & 400 & \text{Salary} & \text{Units(m)} & \text{Scale} \\
\text{Job L2} & \quad 4.2 & 3.5 \times b & 13.9 & 10.9 & 450 & \text{Salary} & \text{Units(m)} & \text{Scale} \\
\text{Job L3} & \quad 4.0 & 5.0 \times b & 20.0 & 25.0 & 500 & \text{Salary} & \text{Units(m)} & \text{Scale} \\
\text{Job L4} & \quad 4.0 & 4.0 \times b & 16.0 & 15.0 & 550 & \text{Salary} & \text{Units(m)} & \text{Scale} \\
\text{Job L5} & \quad 3.5 & 3.6 \times b & 12.6 & 12.9 & 600 & \text{Salary} & \text{Units(m)} & \text{Scale} \\
\text{Job L6} & \quad 2.8 & 3.5 \times b & 9.8 & 10.9 & 550 & \text{Salary} & \text{Units(m)} & \text{Scale} \\
\text{Job L7} & \quad 2.8 & 2.2 \times b & 6.8 & 4.3 & 700 & \text{Salary} & \text{Units(m)} & \text{Scale} \\
\text{Total} & \quad 162.1 & 167.7 & 1075.7 & 1038.5 & 750 & \text{Salary} & \text{Units(m)} & \text{Scale} \\
\end{align*}

CONCLUSIONS

It is evident that job evaluation principles and methods can be applied with equal facility to salaried and supervisory positions as to routine repetitive jobs. Certainly, the benefits of good job evaluation should be made available in the very area where jobs are of the greatest individual importance—the managerial area.

With this objective in mind, the author wishes to stress the following points:

1. The only major change in evaluating supervisory jobs rather than "rank and file" jobs is in the definition of factors. Since the type of work performed by supervisory personnel is different than that performed by factory workers, it is only logical that the factors used to describe the work should be different. In this respect, referring to Figure 1, the only significant differences are:

   (a) Under "Skill"—the degree of leadership, initiative and judgment should be expressed.

   (b) Under "Responsibilities"—the number and type of contacts whether with the public, customers, vendors, officers of the company, or employees should be expressed.
(c) Under "Responsibilities"—there should be a finer breakdown of the degree of supervision; for example, it may be divided into the degree of supervision given and the degree of supervision received, and this division further subdivided into "much," "little" or "none". These differences in factor descriptions are also upheld by Victor V. Veysey who has compiled a comprehensive booklet on describing the supervisor's job. 11

The units for the salary distribution are in terms of dollars per month for supervisory positions rather than cents per hour as for factory workers.

2. The author advocates the use of absolute monetary values instead of percentage values in distributing the salary of each job over the five factors. Absolute values give a clear and definite picture of the amount allotted to a specific factor; percentage terms are too vague.

3. The author advocates the performance of the initial salary allocation independent of the factor ranking. Then, when the salary ranking is compared to the

11Veysey, Victor V.; Describing the Supervisor's Job, Pasadena; California Institute of Technology, 1944, p. 7.
factor ranking, discrepancies between the rankings will be obvious in a given job. This procedure is also advocated by L. P. Alford and J. R. Bangs. 12

4. The author cannot advocate too strongly the necessity and importance of acquiring accurate, detailed and thorough knowledge of each job. The job specifications, upon which the jobs are finally evaluated, must be detailed and complete. Without such care in the preparation of job specifications, no true relationship between jobs can be established and therefore no sound job evaluation program can be developed.

5. The author advocates grouping similar jobs under a single title or class and using the evaluated salary for the class to apply to all jobs within the class rather than singularly and needlessly evaluating many similar jobs to get the same results. Pertinent examples are Job O-Secretary, Engineering Department, Job P-Secretary, Production Department, and Job IG-Secretary, Sales Department. These jobs could readily have been grouped into one class at the outset since their work is almost identical in their respective

departments. Then one of the jobs could have been used as the standard for the class; this job would then be evaluated and its evaluated salary applied to the other two. This procedure increases in adaptability in direct proportion to the number of jobs being evaluated.\(^\text{13}\)

6. The author believes it essential that job evaluation, once installed, be kept alive. This can be accomplished by constant committee action, control and re-rating as job duties, or methods may change.

7. The advantages of a good job evaluation program are very definite:

(a) Discussion of wages with employees can be based on facts, thus obviating suspicion of personal bias.

(b) "Out of line" jobs become readily apparent.

(c) The trained employment manager or supervisor is enabled to recognize misfits and incompetents.

(d) The best possible return from the dollar of payroll disbursement is secured.

(e) The reservoir of energy in the supervisory staff will be utilized to the fullest—men will be compensated for their precise service

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\(^{13}\) Also advocated by D. N. Megor, author of an efficient job evaluation program for supervisory personnel of the York Corporation, York, Pennsylvania.
to the organization.

(f) The possibilities for transferring skilled employees from one job to another become apparent.

(g) Merited promotions may be made in accordance with ability.

(h) The employment department, using the detailed write-ups, has an efficient tool to facilitate hiring and placement of new workers.

Finally, one cannot overlook the importance of psychology in job evaluation, particularly, in reference to the development and the application of a job evaluation system. An industrial engineer or analyst may have a complete and thorough knowledge of the mechanics of a job evaluation system, yet fail miserably in making that system work. Why? Because job evaluation demands more of the engineer than the mere knowledge of a grading plan. Good judgment, common sense and plain logic must be applied in its use. There are many factors in a job which are intangible and incapable of precise measurement; for example, the type of analysis and decisions involved in a job, the mental demand required, and the responsibility for material and equipment losses are just a few of the more important ones.

These factors are intangible because they are difficult to evaluate or measure. They cannot be observed; they must be determined by analysis of the conditions and circumstances
surrounding a job. Therefore, the application of psychology, of good judgment, and sound reasoning in evaluating these intangible factors will result in logical and reasonable conclusions.
BIBLIOGRAPHY


Riegel, John W., Salary Determination, Bureau of Industrial Relations, University of Michigan, 1940, pp. 19-253.


APPENDIX A
FIG. 1. ORGANIZATION CHART OF AUTO-SOLER COMPANY
1. MENTAL REQUIREMENTS:
   A. (inherent) - The possession of or application of mental traits, such as intelligence, logical reasoning, memory, imagination, emotional stability, ability to get along and cooperate with others, facility in verbal expression.
   B. (acquired) - Formal education, such as grammar school, high school, trade or business school, college, graduate work or equivalents of each in experience.
   C. (acquired) - Specialized job knowledge such as engineering, accounting, advertising, secretarial.

2. SKILL
   A. Facility in muscular coordination, as in operating machines, repetitive movements, dexterity, assembling, disassembling.
   B. Specific job knowledge necessary to the muscular or mental coordination of the work acquired through performance of the job. Example:
      (1) In operating an adding machine, the knowledge of which key to depress for a sub-total would be skill.
   C. Appraises the degree of initiative, creative effort, ingenuity, independent decisions, leadership, judgment.

3. PHYSICAL REQUIREMENTS:
   A. Physical effort, such as walking, lifting, standing, sitting. Consider both the amount exercised and the continuity.
   B. Type of operation performed, as repetitive, varied, intermittent, semi-automatic, etc.
   C. Physical status, as to age, height, weight, sex and strength.

4. RESPONSIBILITIES:
   A. For raw, processed, and finished materials, tools & equipment.
   B. For money, negotiable securities, making decisions that affect cost, probability of and cost of errors.
   C. For contact with the public, customers, vendors, officers of the company and employees. Appraises the ability to deal tactfully with and influence others.
   D. For records.
   E. For supervision.
      (1) Primarily, the type and grade of supervision given to subordinates; the number of subordinates is secondary. Responsibility for work and safety of others, for organizing, planning, directing, instructing and controlling others.
      (2) Degree of supervision received. For example, if jobs A & B gave no supervision to subordinates but A received much closer immediate supervision than B, then B would be entitled to a higher rating than A.
      To illustrate the four degrees of supervision:
      Highest degree --- gives much --- gets little
      High " " " " " much
      Low " " " none --- " little
      Lowest " " " " " much

5. WORKING CONDITIONS
   A. Type and continuity of hazardous and/or disagreeable features of the job and its surroundings. Consider the accident and health hazards.
   B. Environmental influences, such as atmospheres, ventilation, illumination noise, congestion, inside or outside work.
   C. Extent and continuity of travel essential to fulfillment of job.

F.G. 2. DEFINITION OF FACTORS
### Mental Requirements

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**FIG. 3. FACTOR RANKS ASSIGNED TO TENTATIVE KEY JOBS**
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**FIG. 1. MONETARY ALLOCATION TO TENTATIVE KEY JOBS.**
FIG. 5. MONETARY ALLOCATION AND CORRESPONDING RANK PER FACTOR
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**FIG. 7. COMPARISON OF FACTOR RANKING AND MONETARY RANKING AFTER THREE TENTATIVE KEY JOBS ARE ELIMINATED.**
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**FIG. 8. COMPARISON OF FACTOR RANKING AND MONETARY ALLOCATION AFTER THREE TENTATIVE KEY JOBS ARE ELIMINATED.**
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**FIG. 13. JOB COMPARISON SCALE FOR RESPONSIBILITY**
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**FIG. 14. JOB COMPARISON SCALE FOR WORKING CONDITIONS.**
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<tr>
<th>Job</th>
<th>Mental Requirements</th>
<th>Skill Requirements</th>
<th>Physical Requirements</th>
<th>Responsibility</th>
<th>Working Conditions</th>
<th>Total Evaluated Salary</th>
<th>Present Salary</th>
<th>Plus or Minus</th>
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<td>165</td>
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<td>150 x</td>
<td>150</td>
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<td>Job-G</td>
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GRAND TOTAL...........................................................................................................$9,530......$9,755......M225

**FIG. 15. COMPARISON OF EVALUATED SALARY AND PRESENT SALARY PER JOB.**
FIG. 16. SCATTER DIAGRAM OF EVALUATED SALARY AND PRESENT SALARY WITH TRENDS LINE.
APPENDIX B
JOB DESCRIPTION

Job Title: Vice Pres. in Charge of Sales

Department: Sales

FUNCTION: Directs activity of sales and service.

DUTIES:
1. Plans activity of sales department.
2. Carries on correspondence with Sales Managers concerning Sales and Service problems.
3. Supervises receipt and processing of orders.
4. Promotes sales through jobbers by means of correspondence and personal visits.
5. Supervises keeping of sales and bonus records.
6. Promotes sales activity by means of house organ, contests, bonuses, etc.
7. Supervises activity of Service Department.
8. Consults with other company officers concerning plan, policies, sales goals, etc.
9. Visits and works with territory sales managers increasing sales, improving sales methods and training salesmen.
JOE DESCRIPTION

Job-B

Job Title: Planning Engineer

Date

Department: Engineering

Analyst

FUNCTION Plans and schedules work through machine shop and assembly department, supervises material control, Parts Department and Receiving Department, prepares various reports concerning production and material control, keeps records of capital equipment, designs forms and factory systems, plans, creates, and supervises education of standard procedures for personnel, material and methods.

DUTIES

1. Supervises activity of Scheduling and Planning, Parts and Receiving Departments and Material Control.
2. Supervises preparation of weekly reports concerning status of parts production, hours behind schedule, etc.
4. Designs factory forms and systems.
5. Performs various staff functions such as Job Analysis and Job Chairman of Suggestion Committee.
6. Supervises activities of time study engineer.
7. Plans and recommends:
   a. Time and method standards
   b. Material standards
   c. Material handling standards
   d. Inspection standards
JOB DESCRIPTION

Job-C

Job Title    Time Study Engineer    Date

Department    Analyst

FUNCTION    Prepares for and takes time and motion study for purpose of maintaining record and control of production.

DUTIES

Daily:
1. Supervises preperation for and takes all time studies for machine and assemble jobs.
2. Study and recommend inification of
   a. Machining Standards.
   b. Material handling Standards.
3. Device and make reports on:
   a. Daily employee production performance
   b. Periodic employee production performance
   c. Job Production performance.
4. Analyze and coordinate methods and processes.
5. Special staff assignments.
JOB DESCRIPTION

Job-D

Job Title          Office Manager          Date

Department        Treasury              Analyst

FUNCTION Directs office personnel, coordinate the personnel of various departments. Supervises office service such as telephone, teletype, duplicating, mailing, filing and stationery supply. Determines detail of office policy on physical property of personnel.

DUTIES

2. Places orders for stationery supplies and office equipment. Keeps inventory on these also. Handles repair of these.
3. Reviews, enters account numbers and approves all invoices.
4. Orders credit report and routes report to proper person.
5. Directs special mailing.
6. Supervises telephone, teletype, duplicating, mailing and filing function either directly or through supervisors.
7. Interviews, hires and recommends hiring of office personnel.
8. Assigns additional personnel to department when needed.
9. Carries out special assignments as requested.
JOB DESCRIPTION

Job Title: Engineering Draftsman

FUNCTION
Under supervision of industrial engineer, prepares drawings, sketches, of machines parts, castings, production layouts, operation drawings and other blue prints, maintains file of drawings.

DUTIES

Daily:
1. Receives instruction from industrial engineer.
2. Makes necessary contacts on particular projects.
3. Collects pertinent data.
4. Prepares finished drawings, sketches of machine parts, castings, assemblies and operations. Prepares layouts with advise and aid of industrial engineer, methods of engineer and others. Presents drawings to industrial engineer for approval.
5. Orders blue prints and files finished drawings.

Periodic:
None

Occasional:
1. Draws finished organization charts.
2. Paints signs.
3. Makes illustration drawings for advertising.
4. Knows maps and parts of building structure.
5. Photograph meetings, individuals and machines.
JOB DESCRIPTION

Job Title: Receptionist & Telephone Operator
Department: General Office

FUNCTION
Receives callers and notifies proper persons. Answers all incoming, outgoing and interoffice telephone calls. Operates teletype and does miscellaneous typing.

DUTIES
Daily:
1. Opens and distributes mail.
3. Receives callers and refers to proper persons or gives information.
4. Types acknowledgements on Auto-Soler orders.
5. Maintains customer cards and sends service material to new customers and to customers buying used machines.
JOB DESCRIPTION

Job-G

Job Title: Senior Clerk
Date: ____________

Department: Accounting Analyst

FUNCTION: Posts details of machine sales to various records, keeps various records and writes collection form letters, takes dictation and transcribes letters.

DUTIES:
1. Supervises all clerks in accounting department.
2. Balances Accounts Receivable Journal and makes up customers' monthly statements for machines, wire and parts.
4. Assists supervised employees in miscellaneous accounting functions.
JOB DESCRIPTION

Job Title: Senior Cost Clerk

FUNCTION: Under general supervision, maintains records of direct factory labor and material cost and prepares monthly reports on same. Initials production orders, maintains kardex stock record, of name factured and purchased parts.

DUTIES

Daily:
1. Receives vendor invoices from Purchasing Department and post data to material journal.
2. Posts data from material journal to material ledger and extends new cost of material.
3. Receives bills of material and production orders after material is delivered, prices material from material ledger, extends new balance, records in material control journal, posts total to material ledger.
4. Receives completed production orders from technical clerk, records quantities in material journal, posts from journal to ledger, extends balance and unit cost, posts total to material control card.
5. Receives and files inventory cards made by Parts Department each time a requisition is placed for parts or material.

Periodic:
1. Consolidates figures for production of machines and subassemblies for the month, prices and extends.
2. Totals daily wire production reports for month.
3. Secures labor cost from technical clerk and combines with material cost.
4. Secures totals of material received, produced, used and sold from records.
5. Consolidates above into monthly reports.
6. Posts billing sheets for month's production to reduce manufactured parts, purchased parts and raw material inventories.
# JOB DESCRIPTION

<table>
<thead>
<tr>
<th>Job Title</th>
<th>Bookkeeper</th>
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</table>

<table>
<thead>
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<th>Department</th>
<th>Accounting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analyst</td>
<td></td>
</tr>
</tbody>
</table>

## FUNCTION


## DUTIES

1. Checks Sales invoices and compares with entries on Sales Journal.
2. Picks up Commission Certificates and checks against records. Checks Installment Commission against installment back.
3. Compiles Salesmen's Salaries and expenses.
5. Checks Sales Journal and balances with machine, wire and parts sales.

Periodic:

1. Compiles reports on profit and loss.
2. Compiles Financial Statement.
JOB DESCRIPTION

Job Title: Accounting Clerk  
Job—J  
Date

Department: Accounting  
Analyst


DUTIES:
1. Posts all wire and parts sales to Sales Journal.
2. Posts all sales journal entries to Accounts Receivable Journal.
5. Completes entries on wire and parts sales invoices. Types date, postage and shipping date on invoice. Enters Salesmen's Commission on Accounting Department Copy.
6. Pays freight bills, inspects to see that account number appears on bill, writes check covering bills.
7. Writes checks for part of Accounts Payable by 10th of each month.

Periodic:
1. Balances Accounts Receivable Journal and makes up customers monthly statements for wire and parts.
2. Buys War Savings Bonds for employees each Monday.

Occasional Duties:
1. May assist in other accounting functions from time to time.
JOB DESCRIPTION

Job-K

Job Title: Mail and File Clerk  
Date: ________________

Department: Mail and File  
Analyst: ________________

FUNCTION

Under general supervision, arranges and files various material. Weighs letters, packages, etc., on ditto machine. Collects and delivers mail.

DUTIES

Daily:
1. Separates material to be filled into various classifications and files material.
2. Writes letters, packages, etc., and place proper postage by operating postage machine.
3. Operates ditto machine.
4. Picks up mail several times during each day.
5. Answers telephone inquiries for information in files.

Occasional:
1. Operates mimeograph machine.
JOB DESCRIPTION

Job-Title: Transcribing Machine Operator

Department: Sales Analyst

FUNCTION: Transcribes dictated matter using transcribing machine and typewriter. Performs miscellaneous typing operations.

DUTIES:

Daily:
1. Transcribes cylinders using transcribing machine and typewriter.
2. Acknowledges Sales
3. Notifies salesmen of shipments, demonstration charged, etc.
4. Types up invoices and details of machine sales.

Periodic:
1. Types shipping schedule, reports of machines on hand, etc.
2. Types weekly and monthly reports.
JOB DESCRIPTION

Job Title: Steno-Typist
Department: Export

FUNCTION
Transcribes shorthand notes and dictaphone records.
Files correspondence. Prepares invoices.

DUTIES
Daily:
1. Transcribes shorthand notes and dictaphone records for Export Department and other departments.
2. Addresses enveloped and writes form letters.
Prepares Shipper's Export Declaration.
4. Files all material for Export Department.
JOB DESCRIPTION

Job Title: General Office Clerk

Department: Purchasing

FUNCTION: Types Purchase Orders from prepared requisitions, transcribes letters from dictaphone to typewriter, cuts stencils and runs on ditto or mimeograph machine.

DUTIES:

Daily:
1. Types purchase orders using prepared requisitions.
2. Transcribes letters from dictaphone records using typewriter.
3. Cuts ditto or mimeograph stencils on typewriter.
4. Runs off ditto or mimeograph stencils on those machines.
5. Keeps up stock of stationery and supplies for use of office.
6. Files purchase orders, catalogue and correspondence.

Periodic:
1. Relieves switchboard operator for rest period.
JOB DESCRIPTION

Job-0 Secretary

Department Engineering Analyst

FUNCTION

Takes and transcribes dictation. Types statistical reports. Arranges for duplicating work to be done. Makes mathematical calculations on Time Studies.

DUTIES

Daily:
1. Takes and transcribes dictation.
2. Transcribes Dictaphone records writing correspondence involving Engineering terms.
3. Makes appointments and takes messages for Industrial Engineer.
4. Cuts stencils for duplicating.
5. Makes mathematical calculation on time study data sheets.
JOB DESCRIPTION

Job Title: Secretary of Production  Date: 

Department: Production  Analyst:


DUTIES

Daily:
1. Takes and transcribes dictation using shorthand and typewriter.
2. Receives, marks and distributes departmental mail.
3. Fills out compensation claims on injured employees.
4. Maintains hospitalization and group insurance records for all employees.
5. Writes up requisition for Auto-Nailer and writes shipping letters on all machines shipped.
6. Maintains record of wage changes, address, etc., on factory employees.

Periodic:
1. Makes new list of employee every two months.
2. Makes insurance reports monthly.
JOE DESCRIPTION

Job-Q

Job Title: Receiving Clerk  Date: 

Department: Parts  Analyst: 

FUNCTION

Receives all deliveries, checks condition and count of goods. Stores goods received or takes to proper department. Cuts up steel stock on Raw Material Requisition Orders. Delivers orders for raw material to floor.

DUTIES:

Daily:
1. Receives all goods delivered to company. Checks physical condition of packages and makes physical count of shipment. Makes receiving memorandum and sends copy to inventory control records.
2. Sends or takes goods received to proper place.
3. Stores castings and raw materials in department.
4. Posts bin cards to keep perpetual inventory of castings in stock.
5. Operates Power Hack Saw to cut steel stock into required lengths on Raw Material Requisition.
6. Delivers raw stock, cut stock and castings to production floor.
7. Supervises helper in performance of the above functions.

Periodic:
1. Takes physical inventory of stock in department.
JOB DESCRIPTION

Job Title: Vice President - Manufacturing  
Department: Production Analyst

FUNCTION
Responsible for the direction and supervision of the Purchasing Engineering Shop. Shippand Part of Customer Service Departments. Acts with committee of company officers to determine company policy. Responsible for accomplishing the production program within the company budget.

DUTIES
1. Consults with departmentheads in planning. Scheduling and accomplishing the production program.
2. Dictates correspondence relative to production function.
3. Functions, with committee of officers, to determine company policy.
4. Investigates new production ideas, discusses with officers, department heads, staff employees.
JOB DESCRIPTION

Job Title: Industrial Engineer        Date: 

Department: Engineering  Analyst

FUNCTION
Plans, creates and supervises execution of scientific management for the factory. Handles factory correspondence and patent matters.

DUTIES
1. Supervises the activities of Cost, Planning and Scheduling, drafting, Parts and Receiving Departments.
2. Dictates correspondence for all factory departments.
3. Handles patent matters, protecting present patents and securing new patents on new ideas, designs and developments.
4. Plans and supervises construction and alteration of buildings.
5. Consults with others on new product design.
6. Interviews department heads to secure information for improving overall operation of the factory.
7. Helps to form company policies and sees that those policies are carried out as they effect the Engineering Department.
8. Supervises Job Evaluation program.

JOB DESCRIPTION

Job Title: Assistant to Vice President of Sales

Department: Sales Analyst

FUNCTION: Under general supervision, writes sales and service letters, assembles data for shipping goods, selects and writes copy for sales house organ.

DUTIES:
Daily:
1. Check machine sales received, routes to proper people for processing.
2. Dictates Sales letters to prospects.
3. Dictates service letters to customers.
4. Keeps perpetual inventory of machines on hand and makes up tentative production order.
5. Supervises detail of Service Department and two clerk typing letters, invoices, etc.
6. Checks correspondence before signing.
7. Releases machine Sales to Shipping Department after processing is completed.

Occasional Duties:
1. Takes charge of Sales Department in absence of supervisor.
JOB DESCRIPTION

Job Title: Advertising Manager

Date

Department: Advertising

FUNCTION
Directs Company's advertising program. In charge of Sales of Auto-Nailers.

DUTIES
1. Selects and buys advertising space.
2. Supervises preparation of advertising copy and layout.
3. Buys art, photograph, engraving, printing, etc.
4. Dictates Auto-Nailer Sales Correspondence.
5. Advises Salesmen on Auto-Nailer Sales activity.
6. Prepares Instruction Manuels.
7. Performs various special assignments for President.
JOB DESCRIPTION

Job Title: Secretary & Treasurer

Department: Treasury

FUNCTION: Directs and supervises the company's financial activity, the keeping of company financial records and the office activity.

DUTIES:
1. Assigns various duties to department heads under supervision.
2. Consults with department heads in obtaining better results and checking accomplishment.
3. Acts on committee of executives in formulation of financial policy for the company.
4. Supervises through office manager the office Services Department.
5. Keeps corporate seal and maintains records of meetings of Board of Directors. Performs other corporate secretarial duties.
JOB DESCRIPTION

Job Title: Export Manager

Date: 

Department: Export Analyst

FUNCTION: Sells company's product to foreign agents. Dictates sales correspondence. Shipping and Service letters. Supervises Shipping and invoicing of order.

DUTIES
1. Writes Sales, shipping, and service letters.
2. Keeps record of orders on hand, requisition machines to fill orders, Furnish Date to Shipping Department.
4. Supervise Secretary writing letters and doing other jobs.
5. See that trade reports are ordered to secure trade information on prospective agents.
6. Compiles export of actual sales as compared with budgeted Sales for each month.
7. Reviews export books, magazines, etc. Searches for better method of selling and distributing.
JOB DESCRIPTION

Job-X

Job Title: Comptroller
Department: Accounting

Date

FUNCTION

Plans designs, develops and supervises the accounting system. Audits internal books and other transactions. Prepares financial statements, budget analysis and other reports for management.

DUTIES

1. Audits Accounts daily for accuracy and for possibility of improving system.
2. Checks incoming and outgoing invoices daily for accuracy and account numbers.
3. Checks salesmen's statements for accuracy.
4. Prepares various management control reports such as financial statements, budget analysis.
5. Supervises general accounts and accounts receivable.
6. Performs special duties for Treasurer as required.
JOB DESCRIPTION

Job Title: Purchasing Agent

Department: Purchasing Analyst

FUNCTION

Purchases material, supplies and tools or approved Material Requisition.

DUTIES

Daily:
1. Receives approved Material Requisition
2. Edits requisition and has Purchase Order Typed.
3. Proof reads Purchase Order, Signs and marts.
4. Contacts Suppliers by phone and mail finding scarce items and new items and to expedite deliveries.
5. Checks, audits and approves invoices after goods are received.

Occasional:
1. Files claims for loss or damaged incoming shipments.
JOB DESCRIPTION

Job-Z
Job Title General Factory Superintendente

Department Analyst

FUNCTION Supervises department under his authority --- machine shop, research department, Tooling department, maintenance department, building and grounds, and wire knurling department.

DUTIES
1. Responsible for maintaining factory production at required levels.
2. Coordinates all activities within the shop.
3. Makes numerous minor decisions as to production procedures, etc.
4. Specifies companies with whom orders are to be placed.
5. Miscellaneous supervisory functions connected with the entire machine shop.
JOB DESCRIPTION

Job-IA
Job Title Assistant Treasurer
Department Credit Analyst

FUNCTION Under general supervision, supervises keeping of Machine Sales Records, Machine Accounts Receivable, GOP Commission records. Collects past due accounts, makes up bank deposit and sight drafts.

DUTIES
2. Dictates correspondence to customers concerning payments on machines.
3. Dictates correspondence to salesmen regarding past due accounts.
4. Keeps record of cash receipt and deposits, makes up bank deposit.
5. Makes up Sight Drafts and handles discounting of customer notes.
6. Examines and passes on Title Retention Notes. Has notes recorded after shipment of machine.
7. Performs any other duties assigned by Treasurer.
JOB DESCRIPTION

Job Title: Schedule & Time Clerk

FUNCTION

Under supervision, processes Production Orders, writes bill of material. Schedules production of parts in shop on Schedule Board. Posts daily production from inspection cards to job cards. Prices and extends labor cost on Job Cards. Posts time and labor dollars on work in progress. Maintains file of Job and Inspection cards until Production Orders are completed. Computes time report for weekly payroll.

DUTIES

Daily:
1. Processes Production Orders by writing in material required or filling out Finished Parts Bill of Material.
2. Makes up schedule and inserts in Schedule Board. Posts daily production to schedule cards from Job Inspection cards. Posts production to Job Cards.
3. Prices and extends time expended on Job Cards daily. Posts time and labor dollars expended to Work in Progress accounts.
4. Files Job Cards and Finished Parts Bills of Material in Work in Progress file.
5. Receives Production Orders, pulls Job Cards and summarizes to arrive at total labor cost for Production Order.
6. Credits time and labor dollars to Work in Progress account on each Production Order.
JOB DESCRIPTION

Job-IC
Job Title: Manager Parts Department
Date
Department: Analyst

FUNCTION Under direct supervision, supervises receipt, storage, disbursement and contact of raw material and finished parts.

DUTIES

Daily:
1. Receives and makes receiving memorandums on all parts manufactured or bought. Has parts placed in stock.
2. Fills or supervises filling of bills of material and delivers to production floor. Posts all of above to transactions to kardex record.
3. Fill orders for parts and service items.
4. Supervises one kardex record clerk and three material clerks.

Periodic:
1. Weekly, takes and reports on inventory of motors and motor units.
FUNCTION Handles miscellaneous correspondence for repairs, executes paper work for repair of machines and component parts. Directs writing of invoices for replacement parts to customers.

DUTIES
1. Maintains correspondence with customers requiring service of machines. 
2. Makes decisions as to repairs that are needed by customers. 
3. Supervises repairs either personally or through literature. 
4. Maintains records of all services rendered.
FUNCTION
Supervises and performs filing, mailing, and addressing functions.

DUTIES:

Daily:
1. Receives mail and filing material.
2. Assigns work to file clerks or performs work.
4. Runs off various lists on addressograph machine.
5. Answers inquiries from various department giving out information over telephone of forwarding file to department.
6. Makes up records on each machine that is sold.

Periodic:
1. Report on mail posted
2. Report on files handled

Occasional Duties:
1. Runs off special lists.
JOB DESCRIPTION

Job Title: Shipping Superintendent

Function:
Supervises invoices, packing and shipping of products.

DUTIES:
1. Ships all goods for company. Rechecks all goods to be shipped. Makes out shipping memorandums.
2. Responsible for proper storage of goods prior to shipment.
3. Keeps records of all outgoing, machines, parts and wire.
4. Operates some materials handling equipment.
JOB DESCRIPTION

Job-IG
Job Title Secretary of Sales
Department Sales
Data Analyst

FUNCTION Takes dictation with shorthand, transcribes shorthand notes and dictaphone cylinders, keeps various sales records.

DUTIES

Daily:
1. Takes dictation in shorthand, transcribes shorthand notes or dictaphone records.
2. Keeps various sales records such as scoreboard, bandwagon, etc.
3. Takes care of routine inquiries.
4. Keeps record of Sales.

Periodic:
2. Makes up GOP Expectancy reports.
3. Makes up weekly and monthly recaps for salesmen.
APPENDIX C
Job Specification

Job Title: Vice-Pres. in charge of Sales

Date

Mental Requirements

Education
Degree in Business Administration

Kind of Work Knowledge
Knowledge of company products, policies. General knowledge of economic trends, market trends of shoe repair, wood working and related business.

Instructs Others: X Close Cooperation
High Intelligence: X Close Concentration
Logical Reasoning
Emotional Stability: X Verbal Expression

Skill

Kind or Type: Directs activities of sales and service. Department training of salesman, coordinating sales with other companies. Functions, handling employees; uses dictaphone; company machines.
Time for Inexperienced Worker to Learn Job: 5 years
To Adapt to Our Methods: Desirable
Desirable Prior Experience: Supervisory—Leadership: XX, Judgment: XX, Sales
Initiative: XX, Independent
Creative Effort: XX, Decisions

Physical Requirements

Nature of Physical Effort: Clerical, Supervisory

Very Active Work: X, Great Strength
Walking: 20%, Much Fatigue
Standing: 20%, Repetitive
Sitting: 60%, Varied
Other, Specify: % Intermittent
Age Limits: __ to __ Minimum Weight

Responsibility

Kind of Equipment, Tools or Materials
Dictaphone, reference books and finished products of company.

For Supervision Given: Much
For Supervision Received: Little

For Contacts with:
Employees: X, Vendors: X
Officers of Co.: X, Public: X
Customers: X, Records
Other Responsibilities:

Producing sales in accordance with sales records and budgets; many decisions effecting costs. Great amount of tactfulness.

Working Conditions

Place: Inside & Out
Type: Executive-Clerical
Noise: X
Illumination: Good
Travel, Specify: Extensive
Hazards, Specify.
JOB SPECIFICATION

Job Title Standards & Planning Engineer Date

MENTAL REQUIREMENTS

Education 2 years college Special Education

Kind of Work Knowledge General knowledge of standards, scheduling, materials handling, etc.

Instructs Others Close Cooperation x
High Intelligence Close Concentration x
Logical Reasoning x Facility in
Emotional Stability x Verbal Expression

SKILL

Kind or Type Ability to plan, create and supervise execution of standards. Ability to efficiently schedule production.

Time for Inexperienced Worker to Learn Job 2 yrs.
To Adapt to Our Methods 1 yr Desirable Prior Experience Supervisory Leadership x Judgment
Initiative x Independent Creative Effort x Decisions

PHYSICAL REQUIREMENTS

Nature of Physical Effort Clerical

Very Active Work x Great Strength
Walking 10 Much Fatigue
Standing 10 Repetitive
Sitting 50 Varied
Other, Specify x Intermittent
Age Limits 25 to 60 Minimum Weight

RESPONSIBILITY

Kind of Equipment, Tools or Materials
All materials in process of production.

For Supervision Given Much For Supervision Received Little
For Contacts with:
Employees x Vendors x
Officers of Co. x Public x
Customers x Records x

Other Responsibilities:
Many decisions affecting costs. Schedule and planning records, weekly reports, records of machinery and freight. Staff functions, damage claims. Acts as job analyst and chairman of suggestion committee.

WORKING CONDITIONS

Place Inside Noise x
Type Clerical Congestion Pleasant
Illumination Good Surroundings
Travel, Specify Hazards, Specify
JOB SPECIFICATION

Job Title: Study Engineer
Date: (Use (X) to indicate, (XX) to stress)

MENTAL REQUIREMENTS

Education: 2 years of college
Special Education

Kind of Work Knowledge:
Knowledge of some industrial engineering work, especially time and motion study. Knowledge of material handling methods and equipment.

Instructs Others: X
High Intelligence: X
Logical Reasoning: X
Emotional Stability: X

SKILL

Kind or Type Ability: to make time and motions studies, micromotion studies, set standards, etc.

Time for Inexperienced Worker to Learn Job: 1 year
To Adapt to Our Methods: 6 months
Desirable Prior Experience: Time Study
Leadership: X
Initiative: X
Creative Effort: X

PHYSICAL REQUIREMENTS

Nature of Physical Effort: Semi-Clerical

Very Active Work: 15%
Walking: 15%
Standing: 70%
Sitting: 70%
Other, Specify: 70%
Age Limits: 20 to 60

RESPONSIBILITY

Kind of Equipment, Tools or Materials: Some photographic equipment, stopwatch, time study forms, micrometer.

For Supervision Given: Much
For Supervision Received: Much

For Contacts with:

Employees: X
Vendors: 

Officers of Co.: X
Public: 

Customers: 
Records: 

Other Responsibilities:
Other Responsibilities:
Reports on employees, staff assignments, records of time studies, performance, productions and standards.

WORKING CONDITIONS

Place: Inside
Type: Clerical
Noise: X
Congestion: X
Illumination: Fair
Surroundings: Poor
Travel, Specify: Hazards, Specify: X
JOB SPECIFICATION

Job D Office Manager  Date 91

MENTAL REQUIREMENTS

Education 4 yrs. high school Special Education Typing; 2 yrs. business administration desirable

Kind of Work Knowledge

Instructs Others X Close Cooperation X
High Intelligence X Close Concentration X
Logical Reasoning Facility in
Emotional Stability X Verbal Expression X

SKILL

Kind or Type
Supervises office personnel; hires personnel

Time for Inexperienced Worker to Learn Job 1 yr.
To Adapt to Our Methods 3 mo Desirable Prior Experience X

Leadership
Initiative X Independent
Creative Effort Decisions X

PHYSICAL REQUIREMENTS

Nature of Physical Effort Clerical

Very Active Work
Walking 15 % Great Strength
Standing 10 % Much Fatigue
Sitting 75 % Repetitive
Other, Specify Varied
Age Limits 25 to 60 Minimum Weight

RESPONSIBILITY

Kind of Equipment, Tools or Materials

Typewriter
For Supervision Given Much For Supervision Received Little
For Contacts with:
Employees X Vendors X
Officers of Co. X Public
Customers Records
Other Responsibilities:
Office supplies; limited decisions affecting costs.

WORKING CONDITIONS

Place Inside Noise X
Type Supervises Congestion
Illumination Good Surroundings Good
Travel, Specify Hazards, Specify
JOB SPECIFICATION

Job Title: Engineering Draftman

(Use (X) to indicate, (XX) to stress)

MENTAL REQUIREMENTS

Education Special Education

4 years of high school and 2 years of trade school.

Kind of Work Knowledge
General knowledge of drafting and drafting procedures. Knowledge of shop terminology for drawings. Ability to determine proper scales to use in drawings.

Instructs Others Close Cooperation (X)
High Intelligence (X) Close Concentration
Logical Reasoning Facility in
Emotional Stability Verbal Expression

SKILL

Kind or Type: Making accurate and easily understood drawings corresponding to given specifications. Elementary knowledge of photography.

Time for Inexperienced Worker to Learn Job: 6 months
To Adapt to Our Methods Desirable Prior Experience: Drafting

Leadership Judgment (X)
Initiative (X) Independent
Creative Effort Decisions

PHYSICAL REQUIREMENTS

Nature of Physical Effort: Clerical

Very Active Work Great Strength
Walking 5 % Much Fatigue
Standing 5 % Repetitive
Sitting 90 % Varied
Other, Specify 2 % Intermittent
Age Limits: 20 to 40 Minimum Weight

RESPONSIBILITY

Kind of Equipment, Tools or Materials: Drawing instruments, photographic equipment

For Supervision Given: None For Supervision Received: Little

For Contacts with:

Employees (X) Vendors
Officers of Co. Public
Customers Records

Other Responsibilities:
Drawing organization charts, some photography; orders blue prints, maintains files records of drawings.

WORKING CONDITIONS

Place: Inside Noise (X)
Type: Clerical Congestion
Illumination: Good Surroundings Poor
Travel, Specify Hazards, Specify
JOB SPECIFICATION

Job Title: Receptionist & Telephone Opr.
Date: 93

MENTAL REQUIREMENTS

<table>
<thead>
<tr>
<th>Education</th>
<th>4 yrs. high school</th>
<th>Special Education</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Kind of Work Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of operation of switchboard</td>
</tr>
<tr>
<td>Knowledge of company audits and products.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Instructs Others</th>
<th>Close Cooperation</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Intelligence</td>
<td>Close Concentration</td>
</tr>
<tr>
<td>Logical Reasoning</td>
<td>Facility in</td>
</tr>
<tr>
<td>Emotional Stability</td>
<td>X</td>
</tr>
</tbody>
</table>

SKILL

<table>
<thead>
<tr>
<th>Kind or Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typing speed at least 50 wpm., Handles people in person and over the phone to create a favorable impression.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time for Inexperienced Worker to Learn Job</th>
<th>3 mos.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Leadership</th>
<th>Judgement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiative</td>
<td>Independent</td>
</tr>
<tr>
<td>Creative Effort</td>
<td>Decisions</td>
</tr>
</tbody>
</table>

PHYSICAL REQUIREMENTS

<table>
<thead>
<tr>
<th>Nature of Physical Effort</th>
<th>Oral; Semi-clerical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Active Work</td>
<td>Great Strength</td>
</tr>
<tr>
<td>Walking</td>
<td>10</td>
</tr>
<tr>
<td>Standing</td>
<td>10</td>
</tr>
<tr>
<td>Sitting</td>
<td>80</td>
</tr>
<tr>
<td>Other, Specify</td>
<td>10%</td>
</tr>
<tr>
<td>Age Limits</td>
<td>20 to 45</td>
</tr>
</tbody>
</table>

RESPONSIBILITY

<table>
<thead>
<tr>
<th>Kind of Equipment, Tools or Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone, switchboard, typewriter and teletype machine.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>For Supervision Given</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>For Supervision Received</td>
<td>Little</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>For Contacts with</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees</td>
</tr>
<tr>
<td>Officers of Co.</td>
</tr>
<tr>
<td>Customers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other Responsibilities:</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
</tr>
</tbody>
</table>

WORKING CONDITIONS

<table>
<thead>
<tr>
<th>Place</th>
<th>Inside</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Clerical</td>
</tr>
<tr>
<td>Illumination</td>
<td>Good</td>
</tr>
<tr>
<td>Travel, Specify</td>
<td></td>
</tr>
</tbody>
</table>

| Noise | X |
| Congestion | |
| Surroundings | Good |
| Hazards, Specify | Finger injuries. |
JOB SPECIFICATION

Job Title: Senior Clerk--Acct. Dept.

Mental Requirements

Education: Special Education
Years of High School: 4

Kind of Work Knowledge: Accounting

Instructs Others: Close Cooperation
High Intelligence: Close Concentration
Logical Reasoning: Facility in
Emotional Stability: Verbal Expression

Skill

Kind or Type: Takes dictation and transcribes. Posts to ledgers, writes collection form letters.

Time for Inexperienced Worker to Learn Job: 6 months

To Adapt to Our Methods: Desirable
Desirable Prior Experience:

Leadership: Judgment
Initiative: Independent
Creative Effort: Decisions

Physical Requirements

Nature of Physical Effort: Clerical

Very Active Work: Great Strength
Walking: Much Fatigue
Standing: Repetitive
Sitting: Varied
Other: Intermittent
Age Limits: 20 to 50

Responsibility

Kind of Equipment, Tools or Materials: Typewriter, adding machine

For Supervision Given: None
For Supervision Received: Much

For Contacts with:
- Employees: Vendors
- Officers of Co.: Public
- Customers: Records

Other Responsibilities:
- Correspondence and machine sales records.

Working Conditions

Place: Inside
Type: Clerical
Illumination: Good
Travel, Specify: X

Noise: Pleasant
Congestion: Pleasant
Surroundings: Pleasant
Hazards: Specify
Job Title: Senior Cost Clerk--Engineer Dep't

MENTAL REQUIREMENTS

Education: 4 years high school Special Education 1 year accounting

Kind of Work Knowledge

Instructs Others: Close Cooperation
High Intelligence: Close Concentration
 Logical Reasoning: Facility in
 Emotional Stability: Verbal Expression

SKILL

Kind of Type: Initiates production orders. Maintains records of material and labor costs. Maintains kardex stock record of manufactures parts.

Time for Inexperienced Worker to Learn Job: 1 year accounting
To Adapt to Our Methods: X Desirable Prior Experience: Accounting
Leadership: Judgment
Initiative: X Independent
Creative Effort: Decisions

PHYSICAL REQUIREMENTS

Nature of Physical Effort: Clerical

Very Active Work: Great Strength
Walking: 1% Much Fatigue
Standing: 9% Repetitive
Sitting: 99% Varied
Other, Specify: 2% Intermittent
Age Limits: to Minimum Weight

RESPONSIBILITY

Kind of Equipment, Tools or Materials: Kardex stock records and accounting ledgers.

For Supervision Given: None
For Supervision Received: Little

For Contacts with:
Employees: X Vendors
Officers of Co.: Public
Customers: Records
Other Responsibilities:
X Makes out cost reports. Helps devise and install cost system; records of material and labor costs.

WORKING CONDITIONS

Place: Inside Noise: X
Type: Clerical Congestion: Poor
Illumination: Good Surroundings
Travel, Specify: Hazards, Specify
JOB SPECIFICATION

Job Title: Bookkeeper
Date: 

MENTAL REQUIREMENTS

Education: 4 years high school, Special Education: 1 year accounting

Kind of Work Knowledge: Detailed knowledge of accounting

Instructs Others: Close Cooperation
High Intelligence: Close Concentration
Logical Reasoning: Facility in
Emotional Stability: Verbal Expression

SKILL

Kind or Type: Determination of proper entries in accounting records, accurate posting of entries, accurate compilation of statements and reports.

Time for Inexperienced Worker to Learn Job: 3 years
To Adapt to Our Methods: Desirable Prior Experience: Bookkeeper
Leadership: Judgment
Initiative: Independent
Creative Effort: Decisions

PHYSICAL REQUIREMENTS

Nature of Physical Effort: Clerical

Very Active Work: Great Strength
Walking: Much Fatigue
Standing: Repetitive
Sitting: Varied
Other, Specify: Intermittent
Age Limits: 25 to ___ Minimum Weight

RESPONSIBILITY

Kind of Equipment, Tools or Materials: Adding machine

For Supervision Given: For Supervision Received:
For Contacts with:
Employees: X Vendors:
Officers of Co.: Public:
Customers: Records:
Other Responsibilities:
Compiling profit and loss statements. Keeps journal and other financial records.

WORKING CONDITIONS

Place: Inside
Type: Clerical
Illumination: Good
Travel, Specify: Hazard, Specify

Noise: X
Congestion: Poor
Surroundings:
JOB SPECIFICATION

Job Title: Accounting Clerk

MENTAL REQUIREMENTS

Education: 4 years high school
Special Education: Typing and Bookkeeping

Kind of Work Knowledge

- Instructs Others
- Close Cooperation
- High Intelligence
- Close Concentration
- Logical Reasoning
- Facility in
- Emotional Stability
- Verbal Expression

SKILL

Kind or Type: Accurately posting accounts. Accuracy and speed in checking invoices and writing checks.

Time for Inexperienced Worker to Learn Job: 1 year.
To Adapt to Our Methods: Desirable Prior Experience Accounts
Leadership: Independent
Initiative: Independent
Creative Effort: Independent
Decisions: Independent

PHYSICAL REQUIREMENTS

Nature of Physical Effort: Clerical

Very Active Work: Great Strength
Walking: Much Fatigue
Standing: Repetitive
Sitting: Varied
Other, Specify: Intermittent
Age Limits: 20 to 35
Minimum Weight

RESPONSIBILITY

Kind of Equipment, Tools or Materials:
- Adding Machine and Typewriter

For Supervision Given: None
For Supervision Received: Much

For Contacts with:
- Employees: X
- Vendors
- Officers of Co.
- Public
- Customers
- Records
- Other Responsibilities:

WORKING CONDITIONS

Place: Inside
Type: Clerical
Illumination: Good
Travel, Specify: 

Noise: X
Congestion: 
Surroundings: Good
Hazards, Specify:
JOB SPECIFICATION

Job Title: Mail & File Clerk

MENTAL REQUIREMENTS

Education: 4 years of high school
Special Education: None

Kind of Work: Knowledge
General knowledge of filing, mimeograph and ditto machine.
Knowledge of addresograph equipment, teletype and switch board.

Instructs Others: Close Cooperation
High Intelligence: Close Concentration
Logical Reasoning: Facility in
Emotional Stability: Verbal Expression

SKILL

Kind or Type: Operates teletype and switch board, addresograph.
Operating mimeograph and ditto machine. Weighs letters and
packages, places proper postage. Collects and delivers mail.

Time for Inexperienced Worker to Learn Job: 3 months
To Adapt to Our Methods: Desirable
Desirable Prior Experience: File and Mail Work

Leadership: Independent
Initiative: Decisions
Creative Effort: Use (X) to indicate, (XX) to stress

PHYSICAL REQUIREMENTS

Nature of Physical Effort: Clerical

Very Active Work: Great Strength
Walking: Much Fatigue
Standing: Repetitive
Sitting: Varied
Other, Specify: Intermittent
Age Limits: 16 to 40
Minimum Weight: None

RESPONSIBILITY

Kind of Equipment, Tools or Materials

For Supervision Given: None
For Supervision Received: Much

For Contacts with:
Employees: X
Vendors: None
Officers of Co.: Public
Customers: Records X
Other Responsibilities:
Correspondence records

WORKING CONDITIONS

Place: Inside
Type: Clerical
Noise: X
Congestion: None
Surroundings: Good
Hazards, Specify: X
JOB SPECIFICATION

Job Title Transcribing Mach. Operator
Date

(Use (X) to indicate, (XX) to stress)

MENTAL REQUIREMENTS

Education 4 years highschool Special Education Typing

Kind of Work Knowledge
General Knowledge of Sales Procedure. Detailed knowledge of spelling and English grammar.

Instructs Others Close Cooperation
High Intelligence Close Concentration
Logical Reasoning Facility in
Emotional Stability Verbal Expression

SKILL

Kind or Type Typing speed of 60 words per minute. Neatness in typing and arrangement of letters. Transcribes dictated material.

Time for Inexperienced Worker to Learn Job 6 months.
To Adapt to Our Methods 1 month Desirable Prior Experience Typist
Leadership Judgment
Initiative Independent
Creative Effort Decisions

PHYSICAL REQUIREMENTS

Nature of Physical Effort Clerical

Very Active Work 5 % Great Strength
Walking 95 % Much Fatigue
Standing Repetitive
Sitting Varied
Other, Specify Intermittent
Age Limits 20 to 40 Minimum Weight

RESPONSIBILITY

Kind of Equipment, Tools or Materials
Transcribing machine, typewriter and stationery forms.

For Supervision Given None For Supervision Received Much
For Contacts with:
Employees X Vendors
Officers of Co. Public
Customers Records
Other Responsibilities:

WORKING CONDITIONS

Place Inside Noise X
Type Clerical Congestion Pleasant
Illumination Good Surroundings Finger Injuries
Travel, Specify


JOB SPECIFICATION

Job Title: Stenographer--Typist

Mental Requirements

Education  4 years high school  Special Education  Stenographer

Kind of Work Knowledge

Knowledge of shorthand, transcribing machine and typewriter.

Good grammar.

Instructs Others  Close Cooperation

High Intelligence  Close Concentration

Logical Reasoning  Facility in

Emotional Stability  Verbal Expression

Skill

Kind or Type  Transcribes shorthand and dictaphone records, using typewriter.

Time for Inexperienced Worker to Learn Job  6 months

To Adapt to Our Methods  Desirable Prior Experience  Secretarial

Leadership  Judgment

Initiative  Independent

Creative Effort  Decisions

Physical Requirements

Nature of Physical Effort

Very Active Work  Great Strength

Walking  % Much Fatigue

Standing  % Repetitive

Sitting  % Varied

Other, Specify  % Intermittent

Age Limits  to

Minimum Weight

Responsibility

Kind of Equipment, Tools or Materials

Dictaphone, adding machine, transcribing machine and typewriter.

For Supervision Given: None

For Contacts with:

Employees  X

Officers of Co.

Customers

Other Responsibilities:

Keeps correspondence records

Working Conditions

Place  Inside

Type  Clerical

Illumination  Good

Travel, Specify

Noise  Congestion  Good

Hazards, Specify: Finger injuries
## JOB SPECIFICATION

**Job Title**: General Office Clerk

**Date**: 101

### MENTAL REQUIREMENTS

| Kind of Work Knowledge | Knowledge of typing. Knowledge of dictaphone, mimeographing and ditto machine. |

<table>
<thead>
<tr>
<th>Instructs Others</th>
<th>Close Cooperation</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Intelligence</td>
<td>Close Concentration</td>
</tr>
<tr>
<td>Logical Reasoning</td>
<td>Facility in</td>
</tr>
<tr>
<td>Emotional Stability</td>
<td>Verbal Expression</td>
</tr>
</tbody>
</table>

### SKILL

- **Kind or Type**: Transcribes letters, operates typewriter, at fifty words per minute, mimeographing, ditto, switchboard and dictaphone.

- **Time for Inexperienced Worker to Learn Job**: None

- **To Adapt to Our Methods**: Desirable Prior Experience

- **Leadership**: Independent

- **Initiative**: Independent

- **Creative Effort**: Decisions

### PHYSICAL REQUIREMENTS

<table>
<thead>
<tr>
<th>Nature of Physical Effort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Active Work</td>
</tr>
<tr>
<td>Walking</td>
</tr>
<tr>
<td>Standing</td>
</tr>
<tr>
<td>Sitting</td>
</tr>
<tr>
<td>Other Specify</td>
</tr>
<tr>
<td>Age Limits ___ to ___</td>
</tr>
</tbody>
</table>

### RESPONSIBILITY

- **Kind of Equipment, Tools or Materials**: Typewriter, mimeograph, ditto, switchboard and dictaphone.

- **For Supervision Given**: None

- **For Supervision Received**: Much

- **For Contacts with**: Employees X Vendors

- **For Contacts with**: Officers of Co. Public Customers Records

- **Other Responsibilities**: 

### WORKING CONDITIONS

<table>
<thead>
<tr>
<th>Place</th>
<th>Inside</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Clerical</td>
</tr>
<tr>
<td>Illumination</td>
<td>Good</td>
</tr>
<tr>
<td>Travel, Specify</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Hazards, Specify Finger Injuries</td>
</tr>
</tbody>
</table>
JOB SPECIFICATION

Job Title Secretary-Engineering Dept. Date

(Use (X) to indicate, (XX) to stress)

MENTAL REQUIREMENTS

Education 4 years of high school Special Education stenographer course

Kind of Work Knowledge

general knowledge of dictation, shorthand, mineographing, and dictaphone. Use good grammar.

Instructs Others Close Cooperation
High Intelligence Close Concentration
Logical Reasoning Facility in
Emotional Stability Verbal Expression

SKILL

Kind or Type Operates mineograph machine, dictaphone. Takes dictation by shorthand and transcribes same.

Time for Inexperienced Worker to Learn Job 6 mos.
To Adapt to Our Methods
Leadership
Initiative
Creative Effort
Desirable Prior Experience
Secretaryial
Judgment
Independent
Decisions

PHYSICAL REQUIREMENTS

Nature of Physical Effort Clerical

Very Active Work Great Strength
Walking 25% Much Fatigue
Standing 25% Repetitive X
Sitting 50% Varied
Other, Specify
Age Limits, to Minimum Weight

RESPONSIBILITY

Kind of Equipment, Tools or Materials Stencils, mineograph machine and dictaphone.

For Supervision Given None For Supervision Received Much
For Contacts with:
Employees X Vendors X
Officers of Co. X Public X
Customers X- Records X
Other Responsibilities:

Correspondence records.

WORKING CONDITIONS

Place Inside Noise X
Type Clerical Congestion Poor
Illumination Good Surroundings
Travel, Specify Hazards, Specify Slight
JOB SPECIFICATION

Job Title Secretary-Production Dept. Date

(Use (X) to indicate, (XX) to stress)

MENTAL REQUIREMENTS

Education 4 yrs, high school Special Education Typing and stenography

Kind of Work Knowledge
General knowledge of company and products.
Detailed knowledge of English, shorthand, typing and dictation.

Instructs Others Close Cooperation
High Intelligence Close Concentration
Logical Reasoning Facility in
Emotional Stability Verbal Expression

SKILL

Kind or Type Takes dictation and transcribes.
Efficient use of typewriter, at least 60wpm. Writes shipping letters, keeps some personal records.
Time for Inexperienced Worker to Learn Job 6 mos.
To Adapt to Our Methods Desirable Prior Experience Stenographer

Leadership
Initiative
Creative Effort

PHYSICAL REQUIREMENTS

Nature of Physical Effort Clerical

Very Active Work Great Strength
Walking 25% Much Fatigue
Standing 25% Repetitive
Sitting 50% Varied
Other, Specify 2% Intermittent
Age Limits 25 to 35 Minimum Weight

RESPONSIBILITY

Kind of Equipment, Tools or Materials
Typewriter and dictaphone

For Supervision Given None For Supervision Received Much
For Contacts with:
Employees x Vendors x
Officers of Co. x Public x
Customers x Records x
Other Responsibilities:

Keeps miscellaneous personnel records.

WORKING CONDITIONS

Place Inside Noise X
Type Clerical Congestion
Illumination Good Surroundings Pleasant
Travel, Specify Hazards, Specify Slight
JOB SPECIFICATION

Job-Q
Job Title: Receiving Clerk
Date:
(Use (X) to indicate, (XX) to stress)

MENTAL REQUIREMENTS

Education: 4 years high school, Special Education
Kind of Work: Knowledge of inventory records.

Instructs Others: Close Cooperation
High Intelligence: Close Concentration
Logical Reasoning: Facility in
Emotional Stability: Verbal Expression

SKILL

Kind or Type: Operates power hack saw, checks delivered goods, delivers orders. Ability to control perpetual inventory. Operates material handling equipment.
Time for Inexperienced Worker to Learn Job: 1 year
To Adapt to Our Methods: Desirable Prior Experience Shipping Clerk
Leadership: Judgment
Initiative: Independent
Creative Effort: Decisions

PHYSICAL REQUIREMENTS

Nature of Physical Effort: Manual Labor
Very Active Work: Great Strength
Walking: Much Fatigue
Standing: Repetitive
Sitting: Varied
Other, Specify: Intermittent
Age Limits: Minimum Weight

RESPONSIBILITY

Kind of Equipment, Tools or Materials:
Power hack saw, material handling equipment, raw materials.

For Supervision Given: None
For Supervision Received: Little
For Contacts with:
Employees: Vendors
Officers of Co.: Public
Customers: Records
Other Responsibilities:

Keeps perpetual inventory

WORKING CONDITIONS

Place: Inside
Type: Semi-clerical
Noise: X
Congestion: X
Illumination: Fair
Surroundings: Fair
Travel, Specify: Hazards, Specify
Heavy machinery
JOB SPECIFICATION

Job Title: Vice President--Manufacturing

Mental Requirements

Education: 4 years of college
Special Education

Kind of Work Knowledge
General knowledge of business management, personnel relations, production procedures. Detailed knowledge of inventory control, traffic management, purchasing routine.

Instructs Others: X Close Cooperation
High Intelligence: X Close Concentration
Logical Reasoning
Emotional Stability: X Verbal Expression

Skill

Kind or Type: Coordinating tangible and intangible phases of production program.

Time for Inexperienced Worker to Learn Job: 1 year
To Adapt to Our Methods: 5-7 yrs. Desirable Prior Experience: 5 yrs. major executive
Leadership: XX Judgment
Initiative: XX Independent
Creative Effort: XX Decisions

Physical Requirements

Nature of Physical Effort: Clerical, Supervisory
Very Active Work
Walking
Standing
Sitting: 100%
Other, Specify
Age Limits: 33 to 50
Minimum Weight

Responsibility

Kind of Equipment, Tools or Materials: None
For Supervision Given: Much
For Supervision Received: Little
For Contacts with:
Employees: X
Officers of Co.: X
Customers: X
Vendors: X
Public: X
Records

Other Responsibilities:
To produce machines in quantity and quality as requested by the sales department.

Working Conditions

Place: Inside
Type: Executive
Illumination: Good
Travel, Specify: Limited
Noise
Congestion
Surroundings: Good
Hazards, Specify:
JOB SPECIFICATION

Job Title: Industrial Engineer  Date: 

(Use (X) to indicate, (XX) to stress)

MENTAL REQUIREMENTS

Education Degree in I. E.  Special Education

Kind of Work Knowledge
Thorough knowledge of all phases of Industrial Engineering.

Instructs Others  X  Close Cooperation  
High Intelligence  Close Concentration  
Logical Reasoning  Facility in  
Emotional Stability  X  Verbal Expression  

SKILL

Kind or Type Must have considerable planning ability to co-ordinate and efficiently supervise drafting, planning, methods, parts and costs departments.

Time for Inexperienced Worker to Learn Job  1 year

To Adapt to Our Methods Desirable Prior Experience  Supervisory I.E. Work

Leadership  XX  Judgment  
Initiative  XX  Independent  
Creative Effort  Decisions  

PHYSICAL REQUIREMENTS

Nature of Physical Effort Clerical and supervisory

Very Active Work  X  Great Strength  
Walking  5%  Much Fatigue  
Standing  10%  Repetitive  
Sitting  85%  Varied  
Other, Specify  2%  Intermittent

Age Limits to Minimum Weight

RESPONSIBILITY

Kind of Equipment, Tools or Materials Responsible for efficient operations of drafting, planning, methods, parts and costs departments

For Supervision Given  Much For Supervision Received  Little

For Contacts with:

Employees  X  Vendors  X

Officers of Co.  X  Public  

Customers  X  Records  

Other Responsibilities:

Supervises job evaluation program. Miscellaneous staff assignments; patent matters; plans and supervises construction of new alterations of building.

WORKING CONDITIONS

Place Inside Noise  
Type Supervisory Congestion  
Illumination Good Surroundings  
Travel, Specify Hazards, Specify
JOB SPECIFICATION

Job Title: Assistant to Vice-Pres. of Sales

MENTAL REQUIREMENTS

Education: 4 years of college Special Education

Kind of Work Knowledge: General knowledge of company's sales policies and products.

Instructs Others: X Close Cooperation: X

High Intelligence: Close Concentration: X

Logical Reasoning: Facility in

Emotional Stability: Verbal Expression: X

SKILL

Kind or Type: Writing letters, handling people.

Time for Inexperienced Worker to Learn Job: 1 year

To Adapt to Our Methods: Desirable Prior Experience General

Leadership: X Judgment: X

Initiative: Independent

Creative Effort: Decisions: X

PHYSICAL REQUIREMENTS

Nature of Physical Effort: Clerical and supervisory

Very Active Work: Great Strength

Walking: 20% Much Fatigue

Standing: 15% Repetitive

Sitting: 65% Varied: X

Other, Specify: Intermittent

Age Limits: to Minimum Weight

RESPONSIBILITY

Kind of Equipment, Tools or Materials: Dictaphone

For Supervision Given: Much For Supervision Received: Little

For Contacts with:

Employees: X Vendors

Officers of Co.: Public

Customers: X Records

Other Responsibilities:

Process machine orders, satisfying customers on service request, selling machines and correspondence.

WORKING CONDITIONS

Place: Inside Noise: X

Type: Supervises Congestion

Illumination: Good Surroundings: Good

Travel, Specify: Some Hazards, Specify.
# JOB SPECIFICATION

**Job Title:** Advertising Manager  
**Date:**  
(Use (X) to indicate, (XX) to stress)

## MENTAL REQUIREMENTS

<table>
<thead>
<tr>
<th>Education</th>
<th>Special Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equivalent of 4 years of college.</td>
<td></td>
</tr>
</tbody>
</table>

**Kind of Work Knowledge**

- General knowledge of advertising, salesmanship, mechanics and woodworking. Detailed knowledge of advertising.

<table>
<thead>
<tr>
<th>Instructs Others</th>
<th>X</th>
<th>Close Cooperation</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Intelligence</td>
<td>X</td>
<td>Close Concentration</td>
<td>X</td>
</tr>
<tr>
<td>Logical Reasoning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional Stability</td>
<td>X</td>
<td>Verbal Expression</td>
<td></td>
</tr>
</tbody>
</table>

## SKILL

**Kind or Type** Supervising advertising copy and layout works. Creating successful advertising ideas.

<table>
<thead>
<tr>
<th>Time for Inexperienced Worker to Learn Job</th>
<th>3 yrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>To Adapt to Our Methods</td>
<td>yrs</td>
</tr>
<tr>
<td>Desirable Prior Experience</td>
<td>Advertising</td>
</tr>
<tr>
<td>Experience</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Leadership</th>
<th>X</th>
<th>Judgment</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiative</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creative Effort</td>
<td>X</td>
<td>Independent</td>
<td></td>
</tr>
</tbody>
</table>

## PHYSICAL REQUIREMENTS

**Nature of Physical Effort**

<table>
<thead>
<tr>
<th>Very Active Work</th>
<th>15</th>
<th>Great Strength</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Walking</td>
<td>15</td>
<td>Much Fatigue</td>
<td></td>
</tr>
<tr>
<td>Standing</td>
<td>70</td>
<td>Repetitive</td>
<td></td>
</tr>
<tr>
<td>Sitting</td>
<td></td>
<td>Varied</td>
<td></td>
</tr>
<tr>
<td>Other, Specify</td>
<td></td>
<td>Intermittent</td>
<td></td>
</tr>
<tr>
<td>Age Limits</td>
<td>to</td>
<td>Minimum Weight</td>
<td></td>
</tr>
</tbody>
</table>

## RESPONSIBILITY

**Kind of Equipment, Tools or Materials**

Typewriter, drawing equipment.

- For Supervision Given: None  
- For Supervision Received: Little  
- For Contacts with:
  - Employees:  
  - Officers of Co.:  
  - Customers: X  
  - Vendors: X  
  - Public:  
  - Records:  

Other Responsibilities:

- Responsible for successful advertising program and sale of Auto-Nailers.

## WORKING CONDITIONS

<table>
<thead>
<tr>
<th>Place</th>
<th>Inside</th>
<th>Noise</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Clerical</td>
<td>Congestion</td>
<td></td>
</tr>
<tr>
<td>Illumination</td>
<td>Good</td>
<td>Surroundings</td>
<td>Pleasant</td>
</tr>
<tr>
<td>Travel, Specify</td>
<td>Limited</td>
<td>Hazards, Specify</td>
<td></td>
</tr>
</tbody>
</table>
JOB SPECIFICATION

Job Title: Secretary & Treasurer

MENTAL REQUIREMENTS

Education: 4 years of college

Special Education: Accounting

Kind of Work Knowledge:
Detailed knowledge of financial operations, accounting system. General knowledge of economics, company's products and policies.

Instructs Others: X

High Intelligence: X

Logical Reasoning: X

Emotional Stability: X

SKILL

Kind of Type: Making some decisions on policies and procedures coordinating activity under direction.

Time for Inexperienced Worker to Learn Job: 2 years

To Adapt to Our Methods: Desirable

Leadership: Treasurer or Accountant

Initiative: X

Independent: X

Creative Effort: X

PHYSICAL REQUIREMENTS

Nature of Physical Effort: Clerical

Very Active Work: Great Strength

Walking: 15%

Standing: 10%

Sitting: 75%

Other, Specify:

Age Limits: 30-75

RESPONSIBILITY

Kind of Equipment, Tools or Materials:

Adding machine

For Supervision Given: Much

For Supervision Received: Little

For Contacts with:

Employees: X

Vendors: X

Officers of Co.: X

Public: X

Customers: X

Records: X

Other Responsibilities:

Financial Records

WORKING CONDITIONS

Place: Inside

Type: Clerical

Illumination: Good

Travel, Specify:
Noise: X

Congestion:

Surroundings: Pleasant

Hazards, Specify:
Job Title: Export Manager

MENTAL REQUIREMENTS

<table>
<thead>
<tr>
<th>Education</th>
<th>Special Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 years high school and 2 years business school</td>
<td></td>
</tr>
</tbody>
</table>

Kind of Work Knowledge
Knowledge of company's products and operation. General knowledge of English and foreign languages. Detailed knowledge of export procedures.

<table>
<thead>
<tr>
<th>Instructs Others</th>
<th>X</th>
<th>Close Cooperation</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Intelligence</td>
<td></td>
<td>Close Concentration</td>
<td>X</td>
</tr>
<tr>
<td>Logical Reasoning</td>
<td></td>
<td>Facility in</td>
<td></td>
</tr>
<tr>
<td>Emotional Stability</td>
<td></td>
<td>Verbal Expression</td>
<td>X</td>
</tr>
</tbody>
</table>

SKILL

Kind or Type: Composing and dictating sales letters to foreign agents. Handling orders and invoicing routine.

Time for Inexperienced Worker to Learn Job: 1 year
Time to Adapt to Our Methods: 3 months

Leadership: X
Initiative: Independent
Creative Effort: Decisions

PHYSICAL REQUIREMENTS

<table>
<thead>
<tr>
<th>Nature of Physical Effort</th>
<th>Clerical, supervisory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Active Work</td>
<td>Great Strength</td>
</tr>
<tr>
<td>Walking</td>
<td>10%</td>
</tr>
<tr>
<td>Standing</td>
<td>15%</td>
</tr>
<tr>
<td>Sitting</td>
<td>75%</td>
</tr>
<tr>
<td>Other, Specify</td>
<td>2%</td>
</tr>
<tr>
<td>Age Limits</td>
<td>Minimum Weight</td>
</tr>
</tbody>
</table>

RESPONSIBILITY

Kind of Equipment, Tools or Materials
Typewriter, Dictaphone

For Supervision Given: Much
For Supervision Received: Much

For Contacts with:
Employees: Vendors
Officers of Co.: X Public: X
Customers: Records

Other Responsibilities:
Contacts foreign agents, banks, railroads, and government agencies.

WORKING CONDITIONS

<table>
<thead>
<tr>
<th>Place</th>
<th>Inside</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Sales &amp; Supervise</td>
</tr>
<tr>
<td>Illumination</td>
<td>Good</td>
</tr>
<tr>
<td>Travel, Specify</td>
<td>Hazards, Specify</td>
</tr>
</tbody>
</table>

| Noise | X |
| Congestion | |
| Surroundings | Good |

X
JOB SPECIFICATION

Job Title: Comptroller  
(Use (X) to indicate, (XX) to stress)

Date

MENTAL REQUIREMENTS

Education

Special Education

4 years of high school and 2 years of business school.

Kind of Work Knowledge

Instructs Others  X  Close Cooperation  X
High Intelligence  X  Close Concentration  X
Logical Reasoning  X  Facility in
Emotional Stability  X  Verbal Expression

SKILL

Kind or Type  Supervising employees doing accounting. Devises
accounting procedures and systems.

Time for Inexperienced Worker to Learn Job 2 years.

To Adapt to Our Methods 3 mo. Desirable Prior Experience

Leadership  X  Judgment

Initiative  X  Independent

Creative Effort  x  Decisions

PHYSICAL REQUIREMENTS

Nature of Physical Effort  Clerical, Supervisory

Very Active Work
Walking  10 %
Standing  10 %
Sitting  80 %
Other, Specify

Age Limits to

RESPONSIBILITY

Kind of Equipment, Tools or Materials

Calculator, adding machine.

For Supervision Given  Much  For Supervision Received  Little

For Contacts with:

Employees  X  Vendors

Officers of Co.  X  Public

Customers

Other Responsibilities:

Auditing all company accounts to insure correction and accuracy.

WORKING CONDITIONS

Place  Inside

Type  Supervisory

Illumination  Good

Travel, Specify

Noise  X

Congestion

Surroundings  Pleasant

Hazards, Specify
JOB SPECIFICATION

Job Title Purchasing Agent

MENTAL REQUIREMENTS

Education
4 years highschool and two years business school

Kind of Work Knowledge
Knowledge of sources of supply for various materials

Instructs Others Close Cooperation
High Intelligence Close Concentration
Logical Reasoning Facility in
Emotional Stability Verbal Expression

SKILL

Kind or Type Finding new sources of supply advantageous to
the company.

Time for Inexperienced Worker to Learn Job 1 year
To Adapt to Our Methods Desirable Prior Experience
Leadership Judgment
Initiative Independent
Creative Effort Decisions

PHYSICAL REQUIREMENTS

Nature of Physical Effort Clerical

Very Active Work Great Strength
Walking Much Fatigue
Standing Repetitive
Sitting Varied
Other, Specify Intermittent
Age Limits 25 to 60 Minimum Weight

RESPONSIBILITY

Kind of Equipment, Tools or Materials
Dictaphone, supplier's catalogues.

For Supervision Given None For Supervision Received Little
For Contacts with:
Employees Vendors
Officers of Co. Public
Customers Records
Other Responsibilities: Access to confidential information; responsible for getting material delivered on time.

WORKING CONDITIONS

Place Inside Noise
Type Clerical Congestion
Illumination Good Surroundings
Travel, Specify Hazards, Specify
JOB SPECIFICATION

Job Title: General Factory Superintendent

(Use X to indicate, (XX) to stress)

MENTAL REQUIREMENTS

Education: 4 years of high school
Special Education: 10 years shop training

Kind of Work Knowledge:
Fundamental knowledge of shop procedures and shop supervision.

Instructs Others: X Close Cooperation
High Intelligence: X Close Concentration
Logical Reasoning: Facility in
Emotional Stability: Verbal Expression

SKILL

Kind or Type: Ability to coordinate and supervise various departments and maintain production at required level.

Time for Inexperienced Worker to Learn Job: 10 years
To Adapt to Our Methods: 2 yrs Desirable Prior Experience: Shop supervision
Leadership: X Judgment: X
Initiative: Independent
Creative Effort: Decisions: X

PHYSICAL REQUIREMENTS

Nature of Physical Effort: Clerical, Supervisory

Very Active Work: Great Strength
Walking: 20% Much Fatigue
Standing: 20% Repetitive
Sitting: 60% Varied
Other, Specify: Intermittent
Age Limits: 30 to 45
Minimum Weight

RESPONSIBILITY

Kind of Equipment, Tools or Materials:
Entire machine shop.

For Supervision Given: Much
For Supervision Received: Little

For Contacts with:
Employees: X Vendors: X
Officers of Co.: X Public: 
Customers: Records: 
Other Responsibilities:

WORKING CONDITIONS

Place: Inside Noise: X
Type: Supervisory Congestion: 
Illumination: Good Surroundings: Good
Travel, Specify: Hazards, Specify:
### JOB SPECIFICATION

**Job Title**: Assistant Treasurer  
**Date**:  

**MENTAL REQUIREMENTS**

| Education | 4 years high school and 2 years of business school |
| Kind of Work Knowledge | General knowledge of accounting, detailed knowledge of credits and collections. |

| Instructs Others | Close Cooperation | Close Concentration | Facility in |
| High Intelligence | Logical Reasoning | Emotional Stability | Verbal Expression |

**SKILL**

| Kind or Type | Supervise and record keeping functions, handling collection of delinquent accounts, handling TRN contracts. |
| Time for Inexperienced Worker to Learn Job | 1 year |
| To Adapt to Our Methods | Desirable Prior experience in accounting work |

| Leadership | Judgment |
| Initiative | Independent |
| Creative Effort | Decisions |

**PHYSICAL REQUIREMENTS**

| Nature of Physical Effort | Clerical, Supervisory |
| Very Active Work | Great Strength |
| Walking | 10-30% Great |
| Standing | 30-50% Much |
| Sitting | 10-40% Varied |
| Other, Specify | |
| Age Limits | 21 to 55 |
| Minimum Weight | |

**RESPONSIBILITY**

| Kind of Equipment, Tools or Materials | Typewriter and adding machine. |
| For Supervision Given | None |
| For Supervision Received | Little |
| For Contacts with: |  |
| Employees | |
| Officers of Co. | X |
| Customers | |
| Vendors | |
| Public | |
| Records | |
| Contacts with banks: Keeping accurate records of machines sold, accounts received, and collections of machinery accounts. |

**WORKING CONDITIONS**

| Place | Inside |
| Type | Supervise |
| Illumination | Good |
| Travel, Specify | |
| Noise | X |
| Congestion | |
| Surroundings | Good |
| Hazards, Specify | |
JOB SPECIFICATION

Job Title: Clerk
Date: ___

MENTAL REQUIREMENTS

Education: 4 years or high school and one year of I. E.

Kind of Work Knowledge

Instructs Others: X Close Cooperation: ___
High Intelligence: X Close Concentration: ___
Logical Reasoning: ___ Facility in: ___
Emotional Stability: ___ Verbal Expression: ___

SKILL

Kind or Type: Facility with elementary mathematics, percentages.

Time for Inexperienced Worker to Learn Job: ___ year
To Adapt to Our Methods: ___ Desirable Prior Experience: ___
Leadership: ___ Judgment: ___
Initiative: X Independent: ___
Creative Effort: ___ Decisions: Limited

PHYSICAL REQUIREMENTS

Nature of Physical Effort: Clerical

Very Active Work: X Great Strength: ___
Walking: 35% Much Fatigue: ___
Standing: 15% Repetitive: ___
Sitting: 50% Varied: X
Other, Specify: ___ Intermittent: ___
Age Limits: ___ to ___ Minimum Weight: ___

RESPONSIBILITY

Kind of Equipment, Tools or Materials Responsible for accurately kept records of daily production, labor costs and time reports.

For Supervision Given: None For Supervision Received: Little
For Contacts with:
Employees: X Vendors: ___
Officers of Co.: ___ Public: ___
Customers: ___ Records: ___
Other Responsibilities:
  Keeps full supply of time cards in racks.

WORKING CONDITIONS

Place: Inside Noise: X
Type: Clerical Congestion: ___
Illumination: Good Surroundings: Fair
Travel, Specify: ___ Hazards, Specify: ___
JOB SPECIFICATION

Job—IC
Job Title Manager--Parts Department
Date 116

(Use (X) to indicate, (XX) to stress)

MENTAL REQUIREMENTS

Education Special Education
4 years of high school and one year in shop work or
Kind of Work Knowledge equivalent in experience.
Knowledge of all parts bought or manufactured by company.

Instructs Others Close Cooperation
High Intelligence Close Concentration
Logical Reasoning Facility in
Emotional Stability Verbal Expression

SKILL

Kind or Type Supervises receipt, storage and disbursement
of raw materials and parts.

Time for Inexperienced Worker to Learn Job 1 year
To Adapt to Our Methods 6mo. Desirable Prior Experience Shop experience X
Leadership Judgment
Initiative Independent
Creative Effort Decisions

PHYSICAL REQUIREMENTS

Nature of Physical Effort Semi-Clerical

Very Active Work Great Strength
Walking 20 Much Fatigue
Standing 20 Repetitive
Sitting 60 Varied
Other, Specify Intermittent
Age Limits to Minimum Weight

RESPONSIBILITY

Kind of Equipment, Tools or Materials
All spare parts and raw materials of same.

For Supervision Given Much For Supervision Received Little
For Contacts with:
Employees X Vendors
Officers of Co. Public
Customers Records X
Other Responsibililities:

WORKING CONDITIONS

Place Inside Noise X
Type Clerical Congestion
Illumination Good Surroundings Good
Travel, Specify Hazards, Specify
JOB SPECIFICATION

Job Title: Service Manager
Date: 11

Mental Requirements

Education: 4 years of high school
Special Education

Kind of Work Knowledge
Correspondence, service letters, knowledge of company products.

Instructs Others: X Close Cooperation
High Intelligence
Logical Reasoning
Emotional Stability

Skill

Kind or Type: Dictation of clear and concise letters.

Time for Inexperienced Worker to Learn Job: 1 year
To Adapt to Our Methods: 6 monthsDesirable Prior Experience: 1 year
Leadership: X Judgment
Initiative
Creative Effort

Physical Requirements

Nature of Physical Effort: Clerical, Supervisory

Very Active Work
Walking: 10%
Standing: 0%
Sitting: 90%
Other, Specify

Age Limits: to

Responsibility

Kind of Equipment, Tools or Materials

For Supervision Given: Much
For Supervision Received: Much

For Contacts with:

Employees: X Vendors
Officers of Co.: X Public
Customers: X Records

Other Responsibilities:

Service Records

Working Conditions

Place: Inside
Type: Clerical
Illumination: Good
Travel, Specify

Noise
Congestion
Surroundings: Good
Hazards, Specify
JOB SPECIFICATION

Job Title: Manager Mail & File Dept.

Mental Requirements

Education: 4 years of high school

Kind of Work Knowledge: General knowledge of operation of the company. Detailed knowledge of addressograph, postage meter and graphotype.

Instructs Others: Close Cooperation

High Intelligence: Close Concentration

Logical Reasoning: Facility in

Emotional Stability: Verbal Expression

Skill

Kind or Type: Operating addressograph, postage meter and graphotype.

Time for Inexperienced Worker to Learn Job: 3 months

To Adapt to Our Methods: Desirable Prior Experience: Mail & File Work

Leadership: Judgment

Initiative: Independent

Creative Effort: Decisions

Physical Requirements

Nature of Physical Effort: Clerical

Very Active Work: Great Strength

Walking: 25% Much Fatigue

Standing: 25% Repetitive

Sitting: 50% Varied

Other, Specify: 2% Intermittent

Age Limits: 19 to 40

Responsibility

Kind of Equipment, Tools or Materials: addressograph, postage meter, graphotype and typewriter

For Supervision Given: Much

For Supervision Received: Much

For Contacts with:

Employees: Vendors

Officers of Co.: Public

Customers: Records

Other Responsibilities: Maintaining accurate files and records.

Working Conditions

Place: Inside

Type: Clerical

Illumination: Good

Travel, Specify: Hazards, Specify

Noise: X
JOB SPECIFICATION

Job Title: Shipping Superintendent

MENTAL REQUIREMENTS

Education: 4 years of high school
Special Education: Typing

Kind of Work Knowledge
Knowledge of freight rates, shipping procedures, Company's products.

Instructs Others: Close Cooperation
High Intelligence: Close Concentration
Logical Reasoning: Facility in
Emotional Stability: Verbal Expression

SKILL

Kind or Type: Supervisory

Time for Inexperienced Worker to Learn Job: 2 years
To Adapt to Our Methods: Desirable Prior Experience: Shipping Clerk
Leadership: Judgment
Initiative: Independent
Creative Effort: Decisions

PHYSICAL REQUIREMENTS

Nature of Physical Effort: Clerical, Supervisory

Very Active Work: Great Strength
Walking: 15% Much Fatigue
Standing: 15% Repetitive
Sitting: 70% Varied
Other, Specify: Intermittent
Age Limits: 23 to 45
Minimum Weight: No

RESPONSIBILITY

Kind of Equipment, Tools or Materials
Crating material

For Supervision Given: Much
For Supervision Received: Much
For Contacts with:
Employees: X Vendors
Officers of Co.: Public
Customers: Records
Other Responsibilities: And transportation companies.

WORKING CONDITIONS

Place: Noise
Type: Congestion
Illumination: Surroundings: Good
Travel, Specify: Hazards, Specify

Date: 119
JOB SPECIFICATION

Job Title Secretary—Sales Department Date

MENTAL REQUIREMENTS

Education 4 years of high school Special Education Secretarial course

Kind of Work Knowledge
General knowledge of company procedures and policies. Detailed knowledge of sales, policies and records. Good knowledge of spelling, grammar.

Instructs Others Close Cooperation
High Intelligence Close Concentration
Logical Reasoning Facility in
Emotional Stability Verbal Expression

SKILL

Kind or Type Typing--60 words per minute. Performing routine office work.

Time for Inexperienced Worker to Learn Job 1 year
To Adapt to Our Methods Desirable Prior Experience
Leadership Independent
Initiative Decisions
Creative Effort

PHYSICAL REQUIREMENTS

Nature of Physical Effort Clerical

Very Active Work Great Strength
Walking 15% Much Fatigue
Standing 15% Repetitive
Sitting 85% Varied
Other, Specify

Age Limits 25 to 45 Minimum Weight

RESPONSIBILITY

Kind of Equipment, Tools or Materials
Typewriter, adding machine, dictaphone.

For Supervision Given None For Supervision Received Much
For Contacts with:
Employees X
Officers of Co. Vendors
Customers Public

Other Responsibilities:

WORKING CONDITIONS

Place Inside Noise X
Type Clerical Congestion
Illumination Good Surroundings Pleasant
Travel, Specify Hazards, Specify