

R E P O R T R E S U M E S

ED 017 664

VT 002 895

A GUIDE FOR EQUIPPING INDUSTRIAL ARTS FACILITIES.  
AMERICAN INDUSTRIAL ARTS ASSN., WASHINGTON, D.C.

PUB DATE 67

EDRS PRICE MF-\$1.00 HC NOT AVAILABLE FROM EDRS. 210P.

DESCRIPTORS- \*INDUSTRIAL ARTS, \*HAND TOOLS, \*EQUIPMENT,  
GUIDES,

SCHOOL ARCHITECTS, ADMINISTRATORS, PLANNERS, AND INDUSTRIAL ARTS SUPERVISORS AND TEACHERS MAY USE THIS GUIDE IN PLANNING, REVISING, AND EVALUATING FACILITIES. IN THE FIRST PART, HAND TOOLS, MACHINES, AND GENERAL EQUIPMENT ARE LISTED FOR (1) AUTO AND POWER MECHANICS, (2) CERAMICS, (3) DRAFTING, (4) ELECTRICITY-ELECTRONICS, (5) ELEMENTARY, (6) GENERAL SHOP, (7) GRAPHIC ARTS, (8) METALWORKING, (9) PLASTICS, AND (10) WOODWORKING. INFORMATION FOR EACH ITEM OF EQUIPMENT INCLUDES (1) INSTRUCTIONAL LEVEL, (2) A CODE NUMBER CROSS REFERENCE TO THE EQUIPMENT SPECIFICATIONS, (3) ITEM NAME, AND (4) QUANTITY NEEDED FOR 24 STUDENTS. THE SECOND PART, EQUIPMENT SPECIFICATIONS, INCLUDES ITEMS OF EQUIPMENT ARRANGED ALPHABETICALLY AND NUMBERED CHRONOLOGICALLY, THE AREA IN WHICH THE ITEM IS USED, AND, IN MOST CASES, BASIC SIZES, DIMENSIONS, CAPACITIES, AND SAFETY CONSIDERATIONS WHERE THEY APPLY. PRICE LISTS OF AMERICAN STANDARDS FOR SAFETY AND AMERICAN STANDARDS ON CONSUMER GOODS ARE INCLUDED. THIS DOCUMENT IS AVAILABLE FOR \$4.75 FROM AMERICAN INDUSTRIAL ARTS ASSOCIATION, NATIONAL EDUCATION ASSOCIATION, 1201 SIXTEENTH STREET, N.W., WASHINGTON, D.C. 20036. (EM)

PROCESS WITH MICROFICHE AND  
PUBLISHER'S PRICES. MICRO-  
FICHE REPRODUCTION ONLY.

# **A Guide for Equipping Industrial Arts Facilities**

VT002995

**First Edition**  
**American Industrial Arts Association**

**Copyright © 1967**

**The American Industrial Arts Association**

**1201 16th Street NW**

**Washington, DC 20036**

**5/22/67**

**\$4.75 per copy**

**NEA Stock # 641-21290**

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE  
OFFICE OF EDUCATION

PROCESS WITH MICROFICHE AND  
PUBLISHER'S PRICES. MICRO-  
FICHE REPRODUCTION ONLY.

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE  
PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS  
STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION  
POSITION OR POLICY.

Permission to reproduce this copyrighted work has been granted to the Educational Resources Information Center (ERIC) and to the organization operating under contract with the Office of Education to reproduce documents included in the ERIC system by means of microfiche only, but this right is not conferred to any users of the microfiche received from the ERIC Document Reproduction Service. Further reproduction of any part requires permission of the copyright owner.

# **A Guide for Equipping Industrial Arts Facilities**

**First Edition  
prepared by  
The Equipment Guide Committee  
American Industrial Arts Association**

## **ACKNOWLEDGMENTS**

The members of the Equipment Standards Committee are grateful for the generous support that has made the Guide for Equipping Industrial Arts Facilities possible. They are especially indebted to the members of the Research Advisory Committee of Western Washington State College who contributed financial assistance and staff time to the project, to Denis Kigin and the Safety Committee of the American Industrial Arts Association who checked the data and made suggestions concerning the safety aspects of the information provided in this Guide, and to the following persons who served with diligence in the various stages of compilation: Dennis Frimml and Misses Mary Hamelin, Vivian Nieuwsma, and Donna Hamstra.

Sam R. Porter, Chairman  
Equipment Standards Committee  
American Industrial Arts Association

## CONTENTS

Foreword .....	4
Equipment Guide Committee .....	5
Introduction .....	8
Purpose of the Guide .....	8
Criteria for the Selection of Equipment .....	8
Terminology and Objectives in Industrial Arts .....	8
The American Standards Association .....	8
A Word of Caution .....	9
Revision .....	9
The Format of the Guide .....	9
I. Equipment Items by Sections .....	10
Index .....	10
How to Use the Equipment Lists .....	10
Auto and Power Mechanics .....	11
Ceramics .....	19
Drafting .....	23
Electricity-Electronics .....	26
Elementary .....	30
General Shop .....	34
Graphic Arts .....	41
Metalworking .....	46
Plastics .....	55
Woodworking .....	61
II. Equipment Specifications .....	68
Introduction .....	68
Master List of Specifications .....	68
American Standards for Safety .....	199

## FOREWORD

The American Industrial Arts Association holds that well-equipped facilities are essential in providing a substantial and modern program of industrial arts education. To assist in meeting this tenet, the AIAA Executive Board in 1964 made plans for the development of an equipment guide. President Walter C. Brown appointed Sam R. Porter to chair a committee that would gather information and prepare material concerning the equipping of industrial arts facilities and furnished directions for the selection of committee members.

Teachers, supervisors, and teacher educators having specialized knowledge and experience in selected areas of industrial arts and representing different regions of the United States and Canada were named by Committee Chairman Porter and approved by the AIAA Executive Board to serve on the Equipment Guide Committee.

Information presented in Industrial Arts Education: Purposes, Program, Facilities, and Instruction published by the American Council of Industrial Arts Supervisors and Planning Industrial Arts Facilities published by the American Council on Industrial Arts Teacher Education was used in selecting the areas of instruction and types of facilities to be covered in the equipment guide.

The Equipment Guide Committee met during the AIAA national conventions in Washington, D.C., in 1964 and in Tulsa in 1965 to make progress reports on the preparation of the material assigned to each Committee member. A final review of the material was made during the 1966 AIAA national convention in San Francisco. Upon completion of the manuscript, it was submitted to the AIAA Publications Committee for review.

Appreciation is expressed to the members of the Equipment Guide Committee for preparing the material for Guide for Equipping Industrial Arts Facilities; to members of the AIAA Publications Committee for reviewing the manuscript; and to AIAA presidents, Walter C. Brown, Robert S. Swanson, and Earl M. Weber, and members of the executive boards during this three-year period for assisting in the successful culmination of this project.

All persons who have responsibility for selecting and purchasing equipment should find Guide for Equipping Industrial Arts Facilities of great value.

Robert L. Woodward  
President, American Industrial Arts Association  
1966-67

## **EQUIPMENT GUIDE COMMITTEE**

**Sam R. Porter, Committee Chairman**  
Western Washington State College  
Bellingham, Washington

### **Automotive and Power Mechanics Section**

**Gail J. Phares, Chairman**  
Metropolitan State College  
Denver, Colorado

**Pat H. Atteberry**  
Oregon State University  
Corvallis, Oregon

**Loren F. Bohner**  
West High School  
Salt Lake City, Utah

**Joseph W. Duffy**  
Central Connecticut State College  
New Britain, Connecticut

**Fred Ilott**  
University of Missouri  
Columbia, Missouri

**Charles G. Risher**  
Western Michigan University  
Kalamazoo, Michigan

### **Ceramics Section**

**Hugo Fiora, Chairman**  
Millersville State College  
Millersville, Pennsylvania

**Austin W. Blake**  
State University College  
Oswego, New York

**John L. Frank**  
Hampton Institute  
Hampton, Virginia

**James Marvin**  
Philadelphia School District  
Philadelphia, Pennsylvania

### **Drafting Section**

**Lawrence S. Wright, Chairman**  
State College of Iowa  
Cedar Falls, Iowa

**William Anderson**  
State Department of Education  
Phoenix, Arizona

**Donald R. Pangborn**  
North High School  
Sheboygan, Wisconsin

**K. C. Sinclair**  
Garinger High School  
Charlotte, North Carolina

**D. N. Valk**  
Northwest Missouri State College  
Maryville, Missouri

### **Electricity-Electronics Section**

**Donald E. Perry, Chairman**  
Ohio University  
Athens, Ohio

**Martin Hassard**  
Blakelock High School  
Oakville, Ontario, Canada

**J. Lyman Goldsmith**  
Los Angeles City School Districts  
Los Angeles, California

**James Morgan**  
Carl Hayden High School  
Phoenix, Arizona

**Philip W. Ruehl**  
Stout State University  
Menomonie, Wisconsin

### **Elementary Section**

**Glenn S. Duncan, Chairman**  
Chico State College  
Chico, California

**Maynard J. Envick**  
Kearney State College  
Kearney, Nebraska

**Raymond V. Griffin**  
Eastern Illinois University  
Charleston, Illinois

**Robert G. Bonde**  
State College of Long Beach  
Long Beach, California

**Harold G. Gilbert**  
Northern Illinois University  
DeKalb, Illinois

**John M. Hurley**  
New York City Public Schools  
Brooklyn, New York

### **General Shop Section**

**Ralph V. Steeb, Chairman**  
State Department of Education  
Tallahassee, Florida

**Clyde H. Gaddy**  
Longfellow Intermediate School  
Falls Church, Virginia

**Charles Bunten**  
Southern Illinois University  
Carbondale, Illinois

**Morris Stevenson**  
Hanley Junior High School  
University City, Missouri

### **Graphic Arts Section**

**Frederick D. Kagy, Chairman**  
Illinois State University  
Normal, Illinois

**Glenn E. Heckman**  
Emmaus High School  
Emmaus, Pennsylvania

**Z. A. Prust**  
Arizona State University  
Tempe, Arizona

**Ervin Dennis**  
Stout State University  
Menomonie, Wisconsin

**Sterling D. Peterson**  
Minneapolis Public Schools  
Minneapolis, Minnesota

**Arvard O. Vogel**  
State University College  
Oswego, New York

### **Metalworking Section**

**T. Gardner Boyd, Chairman**  
Kansas City School District  
Kansas City, Missouri

**Wesley L. Face**  
Stout State University  
Menomonie, Wisconsin

**Ira Johnson**  
Mankato State College  
Mankato, Minnesota

**Walter Wilson**  
Fisherville Junior High School  
Willowdale, Ontario, Canada

### **Plastics Section**

**Robert S. Swanson, Chairman**  
Stout State University  
Menomonie, Wisconsin

**George Champion**  
San Francisco State College  
San Francisco, California

**J. R. Freyermuth**  
Northwest Plastics, Inc.  
St. Paul, Minnesota

**A. A. Hutchings**  
Stokes Division, Pennsalt Chemicals  
Corporation  
Philadelphia, Pennsylvania

**Gerald Steele**  
Minneapolis, Minnesota

### **Woodworking Section**

**Ethan A. T. Svendsen, Chairman**  
Indiana State University  
Terre Haute, Indiana

**Louis J. Bazzetta**  
Tucson Public Schools  
Tucson, Arizona

**George M. Ehemann**  
Manheim Township High School  
Neffsville, Pennsylvania

**G. T. Luther**  
Ontario College of Education  
Toronto, Ontario, Canada

## INTRODUCTION

### **Purpose of the Guide:**

The purposes of the Guide for Equipping Industrial Arts Facilities are listed as follows:

To provide a guide for school architects, administrators, planners, and industrial arts supervisors and teachers as they plan new and revise existing facilities.

To establish criteria for the evaluation of the conditions of a local facility.

To encourage teachers to improve their local programs.

To assist teachers and supervisors in writing specifications.

To lend the support of a national organization to local requests for equipment.

To provide stability to program requirements during personnel changes.

To serve as a unifying force in industrial arts throughout the United States and Canada.

### **Criteria for Selection of Equipment:**

Using his past industrial and educational experience as the primary criteria for the selection of tools and equipment for inclusion, each committee member attempted to further recognize the following specific criteria:

Tools and equipment to be purchased should be those items which are basic to developing an understanding of industry and its processes and should be restricted to those mandated by the objectives of the course.

A trend toward more experimental and scientific equipment as a result of changes in curricular emphasis in this direction should be recognized.

In the school setting there is a necessity for high-quality single purpose tools and machines that require a minimum of maintenance.

In industrial arts education there should be an increasing use of light-weight, portable tools.

Tools and equipment should come from business concerns that have amply demonstrated the worth of their product and the availability of their services and parts.

### **Terminology and Objectives in Industrial Arts:**

The terminology and objectives stated by the American Council of Industrial Arts Supervisors in their publication Industrial Arts Education: Purposes, Programs, Facilities, Instruction (American Industrial Arts Association, 1963) have been recognized by the Equipment Guide Committee as an acceptable guideline for this Guide.

### **The American Standards Association:**

The American Standards Association (ASA) publishes standards for many of the tools, equipment, and processes used in industrial arts education. These standards are published in booklets, each devoted to a single item of equipment or process. A catalog listing the various publications and prices is available

from the American Standard Association, 10 East 40th Street, New York City, 10016. The Equipment Guide Committee strongly urges that ASA standards are consulted before purchasing or installing equipment. A listing of the American Standards for Safety is included in this Guide as an example.

#### **A Word of Caution:**

The Committee is cognizant of the possibility that this Guide may be misused. At a time when national attention is focused upon major curriculum studies and imminent reorganizations of program and methods, it would be unfortunate if this Guide were considered as the dictum of course organization, content, and procedure. All of the lists are presented as suggestions only; none is perfect. The organization of the material into ten major sections is for convenience only and should not be interpreted to constitute endorsement of any particular type of course organization or offering. Indeed, the Committee encourages curricular innovation and reorganization, but deems it unlikely that the fruits of such innovation will demand tools and equipment too different from those which are listed in the Guide.

#### **Revision:**

Because of the changing nature of industrial processes and products, and the changes reflected in industrial arts content and practice, the Committee recognizes a need for constant revision of this Guide. The reader is encouraged to assist in improving future editions of this Guide by submitting suggestions and comments. To facilitate this procedure, addressed postage-paid post cards are included at the end of the Guide; readers are encouraged to use them.

#### **The Format of the Guide:**

This volume is divided into two major divisions:

1. Equipment Items by Sections. A listing of the tools and equipment recommended for each of the major areas represented.
2. Equipment Specifications. A master list of the tools and equipment, with general descriptive specifications.

## I. EQUIPMENT ITEMS BY SECTIONS

Index:	Page
Auto and Power Mechanics .....	11
Ceramics .....	19
Drafting .....	23
Electricity-Electronics .....	26
Elementary .....	30
General Shop .....	34
Graphic Arts .....	41
Metalworking .....	46
Plastics .....	55
Woodworking .....	61

### How to Use the Equipment Lists:

It should be emphasized that the lists presented in each Section are provided as recommendations and should be considered open and flexible. They are suggested only as a guide. However, these lists are a summary of the recommendations made by those selected for their experience and expertise in the area they represent.

Any selection of equipment and tools for inclusion in this Guide necessarily involves choices among alternatives. It is not intended that any one school should buy all of the items recommended, nor is this necessary. However, the purchase of all items in each list would assure the kind and amount of equipment sufficient to carry on basic processes within each area. Tools and equipment were omitted when their purchase seemed unreasonable or unwarranted within the industrial arts setting.

Each list contains the following information:

#### Section

**Level**—Note that the traditional school grade level is avoided in this listing; introductory experiences are considered as basic regardless of the grade level at which they are offered.

**Subsection**—Tools and equipment have been grouped according to their common use or association, and have been listed within subsection lists.

**Code**—A cross-reference to the second division of the Guide.

**Item**—The common name of the tool, machine, or furnishing.

**Number**—The quantity recommended is for a class of approximately 24 students. Two Sections (Elementary and General Shop) have unique requirements; instructions for these Sections appear with their respective lists.

## AUTO AND POWER MECHANICS

Introductory			Advanced		
I. Hand Tools			I. Hand Tools		
Code	Item	Number	Code	Item	Number
			<b>0075</b>	Automatic Transmission Tool (set)	1
<b>0120</b>	Bar, Pry	1	<b>0120</b>	Bar, Pry	1
<b>0135</b>	Battery, Storage (6V)	1	<b>0135</b>	Battery, Storage (6V)	1
<b>0140</b>	Battery, Storage (12V)	1	<b>0140</b>	Battery, Storage (12V)	1
<b>0395</b>	Body-Fender Tools (set)	1	<b>0395</b>	Body-Fender Tools (set)	1
<b>0445</b>	Brake Adjusting Tool (spoons) (set)	1	<b>0445</b>	Brake Adjusting Tool (spoons) (set)	1
<b>0500</b>	Brush, Wire	8	<b>0500</b>	Brush, Wire	2
<b>0645</b>	Caliper, Inside (6")	1	<b>0640</b>	Caliper, Hermaphrodite	1
<b>0655</b>	Caliper, Outside (6")	1	<b>0645</b>	Caliper, Inside (6")	1
<b>0780</b>	Chisel, Cold (set)	4	<b>0655</b>	Caliper, Outside (6")	1
<b>0875</b>	Clamp, "C" (4")	2	<b>0665</b>	Caliper, Vernier	1
<b>0880</b>	Clamp, "C" (6")	2	<b>0780</b>	Chisel, Cold (set)	4
<b>0885</b>	Clamp, "C" (8")	2	<b>0875</b>	Clamp, "C" (4")	2
<b>0890</b>	Clamp, "C" (10")	2	<b>0880</b>	Clamp, "C" (6")	2
<b>0950</b>	Cleaner, Ring groove	1	<b>0885</b>	Clamp, "C" (8")	2
<b>1030</b>	Compressor, Piston ring	2	<b>0890</b>	Clamp, "C" (10")	2
<b>1035</b>	Compressor, Valve spring	2	<b>0950</b>	Cleaner, Ring groove	1
<b>1085</b>	Creeper	4	<b>1030</b>	Compressor, Piston ring	2
<b>1140</b>	Cutter, Bolt	1	<b>1035</b>	Compressor, Valve spring	2
			<b>1085</b>	Creeper	4
			<b>1140</b>	Cutter, Bolt	1
			<b>1145</b>	Cutter, Brushing	1
<b>1220</b>	Cutter, Tubing	1	<b>1195</b>	Cutter, Muffler	1
<b>1250</b>	Die, Letter (set)	1	<b>1205</b>	Cutter, Pipe	1
<b>1255</b>	Die, Number (set)	1	<b>1220</b>	Cutter, Tubing	1
<b>1295</b>	Divider, Spring (6")	1	<b>1250</b>	Die, Letter (set)	1
			<b>1255</b>	Die, Number (set)	1
<b>1320</b>	Dresser, Abrasive wheel	1	<b>1295</b>	Divider, Spring (6")	1
<b>1350</b>	Drill, Hand (1/4")	1	<b>1310</b>	Dolly, Body (set)	1
<b>1355</b>	Drill, Hand (3/8")	1	<b>1320</b>	Dresser, Abrasive wheel	1
<b>1360</b>	Drill Stand, Fractional	1	<b>1350</b>	Drill, Hand (1/4")	1
<b>1370</b>	Drill, Twist (number set)	1	<b>1355</b>	Drill, Hand (3/8")	1
<b>1375</b>	Drill, Twist, Straight shank (fractional set)	2	<b>1360</b>	Drill Stand, Fractional	1
<b>1495</b>	Extension Cord	6	<b>1370</b>	Drill, Twist (number set)	1
<b>1500</b>	Extractor, Screw (set)	1	<b>1375</b>	Drill, Twist, Straight shank (fractional set)	2
<b>1540</b>	Files (see specifications for set detail)		<b>1495</b>	Extension Cord	6
<b>1550</b>	File Card and Brush	6	<b>1500</b>	Extractor, Screw (set)	1
			<b>1540</b>	Files (see specifications for set detail)	
			<b>1550</b>	File Card and Brush	6

<b>1560</b>	<b>File, Contact point (ignition)</b>	<b>1</b>	<b>1560</b>	<b>File, Contact point (ignition)</b>	<b>1</b>
<b>1625</b>	<b>Flywheel holder</b>	<b>1</b>	<b>1605</b>	<b>Flaring Tool (set)</b>	<b>1</b>
<b>1715</b>	<b>Gauge, Belt tension</b>	<b>1</b>	<b>1625</b>	<b>Flywheel holder</b>	<b>1</b>
<b>1725</b>	<b>Gauge, Center</b>	<b>1</b>	<b>1715</b>	<b>Gauge, Belt tension</b>	<b>1</b>
<b>1730</b>	<b>Gauge, Cylinder pressure</b>	<b>1</b>	<b>1720</b>	<b>Gauge, Carburetor (set)</b>	<b>1</b>
<b>1745</b>	<b>Gauge, Drill, Fractions</b>	<b>1</b>	<b>1725</b>	<b>Gauge, Center</b>	<b>1</b>
<b>1750</b>	<b>Gauge, Drill, Number</b>	<b>1</b>	<b>1730</b>	<b>Gauge, Cylinder pressure</b>	<b>1</b>
<b>1760</b>	<b>Gauge, Ignition (set)</b>	<b>2</b>	<b>1745</b>	<b>Gauge, Drill, Fractions</b>	<b>1</b>
<b>1810</b>	<b>Gauge, Spark plug</b>	<b>3</b>	<b>1750</b>	<b>Gauge, Drill, Number</b>	<b>1</b>
<b>1815</b>	<b>Gauge, Spring tension</b>	<b>1</b>	<b>1760</b>	<b>Gauge, Ignition (set)</b>	<b>2</b>
<b>1830</b>	<b>Gauge, Thickness ("feeler")</b>	<b>8</b>	<b>1800</b>	<b>Gauge, Screw pitch</b>	<b>2</b>
<b>1835</b>	<b>Gauge, Tire pressure</b>	<b>2</b>	<b>1810</b>	<b>Gauge, Spark plug</b>	<b>3</b>
<b>1845</b>	<b>Gauge, Vacuum and low pressure</b>	<b>1</b>	<b>1815</b>	<b>Gauge, Spring tension</b>	<b>1</b>
<b>1855</b>	<b>Gauge, Wire and sheet metal (American)</b>	<b>1</b>	<b>1820</b>	<b>Gauge, Surface</b>	<b>1</b>
<b>1860</b>	<b>Gauge, Wire and sheet metal (U.S.S.)</b>	<b>1</b>	<b>1830</b>	<b>Gauge, Thickness ("feeler")</b>	<b>8</b>
<b>1885</b>	<b>Gloves, Leather (pair)</b>	<b>2</b>	<b>1835</b>	<b>Gauge, Tire pressure</b>	<b>2</b>
<b>1900</b>	<b>Goggles (spectacles), Clear observation</b>	<b>6</b>	<b>1845</b>	<b>Gauge, Vacuum and low pressure</b>	<b>1</b>
<b>1905</b>	<b>Goggles, Gas welding</b>	<b>4</b>	<b>1855</b>	<b>Gauge, Wire and sheet metal (American)</b>	<b>1</b>
<b>1950</b>	<b>Grease Gun, Suction, General purpose</b>	<b>1</b>	<b>1860</b>	<b>Gauge, Wire and sheet metal (U.S.S.)</b>	<b>1</b>
<b>2020</b>	<b>Hammer, Ball peen (4 oz.)</b>	<b>4</b>	<b>1885</b>	<b>Gloves, Leather (pair)</b>	<b>2</b>
<b>2025</b>	<b>Hammer, Ball peen (8 oz.)</b>	<b>4</b>	<b>1900</b>	<b>Goggles (spectacles), Clear observation</b>	<b>6</b>
<b>2035</b>	<b>Hammer, Ball peen (16 oz.)</b>	<b>4</b>	<b>1905</b>	<b>Goggles, Gas welding</b>	<b>4</b>
<b>2055</b>	<b>Hammer, Brass head</b>	<b>2</b>	<b>1950</b>	<b>Grease Gun, Suction, General purpose</b>	<b>1</b>
<b>2085</b>	<b>Hammer, Claw (16 oz.)</b>	<b>1</b>	<b>2020</b>	<b>Hammer, Ball peen (4 oz.)</b>	<b>4</b>
<b>2090</b>	<b>Hammer, Engineer's (40 oz.)</b>	<b>2</b>	<b>2025</b>	<b>Hammer, Ball peen (8 oz.)</b>	<b>4</b>
<b>2105</b>	<b>Hammer, Lead</b>	<b>2</b>	<b>2035</b>	<b>Hammer, Ball peen (16 oz.)</b>	<b>4</b>
<b>2135</b>	<b>Hammer, Soft face (8 oz.)</b>	<b>2</b>	<b>2055</b>	<b>Hammer, Brass head</b>	<b>2</b>
<b>2140</b>	<b>Helmet, Welding (hand type)</b>	<b>3</b>	<b>2060</b>	<b>Hammer, Chasing</b>	<b>1</b>
<b>2145</b>	<b>Helmet, Welding (arc) (head type)</b>	<b>2</b>	<b>2065</b>	<b>Hammer, Chipping</b>	<b>2</b>
<b>2200</b>	<b>Hydrometer</b>	<b>1</b>	<b>2085</b>	<b>Hammer, Claw (16 oz.)</b>	<b>1</b>
			<b>2090</b>	<b>Hammer, Engineer's (40 oz.)</b>	<b>2</b>
			<b>2105</b>	<b>Hammer, Lead</b>	<b>2</b>
			<b>2125</b>	<b>Hammer, Sledge</b>	<b>1</b>
			<b>2135</b>	<b>Hammer, Soft face (8 oz.)</b>	<b>2</b>
			<b>2140</b>	<b>Helmet, Welding (hand type)</b>	<b>3</b>
			<b>2145</b>	<b>Helmet, Welding (arc) (head type)</b>	<b>2</b>
			<b>2200</b>	<b>Hydrometer</b>	<b>1</b>

2540	Mallet, Rawhide	2	2210	Indicator, Dial test	1
2545	Mallet, Rubber	2	2540	Mallet, Rawhide	2
2620	Micrometer, Inside	1	2545	Mallet, Rubber	2
2625	Micrometer, Outside (1")	1	2620	Micrometer, Inside	1
2630	Micrometer, Outside (2")	1	2625	Micrometer, Outside (1")	1
2635	Micrometer, Outside (3")	1	2630	Micrometer, Outside (2")	1
			2635	Micrometer, Outside (3")	1
			2640	Micrometer, Outside (4")	1
			2645	Micrometer, Outside (5")	1
2835	Nipper, End cutting	1	2835	Nipper, End cutting	1
2845	Nozzle, Blow gun (air line)	1	2845	Nozzle, Blow gun (air line)	1
2865	Oiler, Bench	6	2865	Oiler, Bench	6
2870	Oiler, Pump	6	2870	Oiler, Pump	6
2875	Oiler, Straight	6	2875	Oiler, Straight	6
2890	Oilstone, Combination, India	2	2890	Oilstone, Combination, India	2
2895	Oilstone, Combination, Silicon carbide	2	2895	Oilstone, Combination, Silicon carbide	2
2925	Packer, Wheel bearing	1	2925	Packer, Wheel bearing	1
3065	Pliers, Battery	2	3065	Pliers, Battery	2
3075	Pliers, Brake	2	3075	Pliers, Brake	2
3080	Pliers, Chain	1	3080	Pliers, Chain	1
3085	Pliers, Combination (6")	8	3085	Pliers, Combination (6")	8
3090	Pliers, Combination (8")	6	3090	Pliers, Combination (8")	6
3100	Pliers, Diagonal cutting	2	3100	Pliers, Diagonal cutting	2
			3115	Pliers, Hose clamp, Radiator and gas line	1
3120	Pliers, Ignition	2	3120	Pliers, Ignition	2
3135	Pliers, Needle nose	4	3135	Pliers, Needle nose	4
3140	Pliers, Retaining ring	2	3140	Pliers, Retaining ring	2
3150	Pliers, Side-cutting	8	3150	Pliers, Side-cutting	8
3170	Pliers, Vise-grip wrench	2	3170	Pliers, Vise-grip wrench	2
3175	Pliers, Waterpump	2	3175	Pliers, Waterpump	2
3235	Press, Arbor	1	3235	Press, Arbor	1
3390	Puller Assembly	1	3390	Puller Assembly	1
			3395	Puller Assembly (large)	1
			3405	Puller, Axle	1
			3410	Puller, Freeze plug	1
			3415	Puller, Gear (set)	1
			3420	Puller, Seal (set)	1
			3425	Puller, Steering wheel	1
			3430	Puller, Valve guide and valve	1
			3435	Puller, Wheel (set)	1
3445	Pump, Oil drum	2	3445	Pump, Oil drum	2
3455	Punch, Center (set)	4	3455	Punch, Center (set)	4
3470	Punch, Drift (set)	4	3470	Punch, Drift (set)	4
3500	Punch, Pin (set)	1	3500	Punch, Pin (set)	1
			3585	Reamer, Cylinder ridge	1
3610	Reels, Drop cord	4	3610	Reels, Drop cord	4
			3625	Remover, Stud (set)	1

3705	Rule, Flexible steel tape (10')	1	3645	Rethreader, Axle	1
3750	Rule, Steel (12")	4	3650	Rethreader, Spark plug hole	1
3850	Saw, Hack (hand)	4	3705	Rule, Flexible steel tape (10')	1
3965	Scissors	2	3750	Rule, Steel (12")	4
3985	Scraper, Carbon	8	3850	Saw, Hack (hand)	4
4025	Screwdriver, Clutchhead	1	3965	Scissors	2
4050	Screwdriver, Phillips (set)	2	3985	Scraper, Carbon	8
4075	Screwdriver, Standard bit (square blade) (4")	2	4025	Screwdriver, Clutchhead	1
4080	Screwdriver, Standard bit (square blade) (6")	2	4050	Screwdriver, Phillips (set)	2
4085	Screwdriver, Standard bit (square blade) (8")	2	5060	Screwdriver, Spiral ratchet	1
4090	Screwdriver, Standard bit (square blade) (10")	2	4075	Screwdriver, Standard bit (square blade) (4")	2
4095	Screwdriver, Standard bit (square blade) (12")	2	4080	Screwdriver, Standard bit (square blade) (6")	2
4100	Screwdriver, Standard bit ("stubby")	4	4085	Screwdriver, Standard bit (square blade) (8")	2
4105	Scriber	2	4090	Screwdriver, Standard bit (square blade) (10")	2
4165	Shield, Face	4	4095	Screwdriver, Standard bit (square blade) (12")	2
4275	Snips, Tinner's, Straight (#8)	1	4100	Screwdriver, Standard bit ("stubby")	4
4335	Soldering Gun, Electric	1	4105	Scriber	2
4435	Spout, Pouring, Oil can	1	4165	Shield, Face	4
4640	Strap, Battery	2	4275	Snips, Tinner's, Straight (#8)	1
4760	Tap and Die, NC (U.S.S.) (set)	1	4335	Soldering Gun, Electric	1
4765	Tap and Die, NF (S.A.E.) (set)	1	4435	Spout, Pouring, Oil can	1
4770	Tap and Die, Pipe (set)	1	4640	Strap, Battery	2
4815	Tester, Battery cell	1	4760	Tap and Die, NC (U.S.S.) (set)	1
4845	Tester, Radiator pressure	1	4765	Tap and Die, NF (S.A.E.) (set)	1
			4770	Tap and Die, Pipe (set)	1
			4815	Tester, Battery cell	1
			4845	Tester, Radiator pressure	1
			4930	Tool, Drag link and shock arm	1
			4935	Tool Holder, Lathe (left hand)	1
			4940	Tool Holder, Lathe (right hand)	1
			4945	Tool Holder, Lathe (straight)	1
			4955	Torch, Propane (kit)	1
5255	Wrench, Adjustable end (6")	2	5255	Wrench, Adjustable end (6")	2

5260	Wrench, Adjustable end (8")	2	5260	Wrench, Adjustable end (8")	2
5265	Wrench, Adjustable end (10")	2	5265	Wrench, Adjustable end (10")	?
5270	Wrench, Adjustable end (12")	2	5270	Wrench, Adjustable end (12")	2
5275	Wrench, Adjustable end (monkey)	2	5275	Wrench, Adjustable end (monkey)	2
5280	Wrench, Allen key (hex) (set)	2	5280	Wrench, Allen key (hex) (set)	2
5290	Wrench, Combination box and open end (set)	4	5290	Wrench, Combination box and open end (set)	4
5295	Wrench, Combination box and open end (metric) (set)	1	5295	Wrench, Combination box and open end (metric) (set)	1
5300	Wrench, Deep socket (3/8" drive) (set)	1	5300	Wrench, Deep socket (3/8" drive) (set)	1
5305	Wrench, Deep socket (1/2" drive) (set)	1	5305	Wrench, Deep socket (1/2" drive) (set)	1
5310	Wrench, Drain plug	2	5310	Wrench, Drain plug	2
5325	Wrench, Lug	2	5325	Wrench, Lug	2
5320	Wrench, Ignition (set)	1	5315	Wrench, Flare nut (set)	1
5340	Wrench, Pipe (10")	2	5320	Wrench, Ignition (set)	1
5355	Wrench, Socket (1/4" drive) (set)	2	5340	Wrench, Pipe (10")	2
5360	Wrench, Socket (3/8" drive) (set)	4	5350	Wrench, Pipe (18")	1
5365	Wrench, Socket (1/2" drive) (set)	6	5355	Wrench, Socket (1/4" drive) (set)	2
5385	Wrench, Socket, Handle extension (3/8" drive) (4")	2	5360	Wrench, Socket (3/8" drive) (set)	4
5390	Wrench, Socket, Handle extension (3/8" drive) (3")	2	5365	Wrench, Socket (1/2" drive) (set)	6
5395	Wrench, Socket, Handle extension (3/8" drive) (set)	2	5370	Wrench, Socket (metric) (set)	2
5400	Wrench, Socket, Handle extension (1/2" drive) (3")	2	5375	Wrench, Socket, Flex handle (3/8" drive)	2
			5380	Wrench, Socket, Flex handle (1/2" drive)	2
			5385	Wrench, Socket, Handle extension (3/8" drive) (4")	2
			5390	Wrench, Socket, Handle extension (3/8" drive) (3")	2
			5395	Wrench, Socket, Handle extension (3/8" drive) (set)	2
			5400	Wrench, Socket, Handle extension (1/2" drive) (3")	2

<b>5405</b>	Wrench, Socket, Handle extension (1/2" drive) (8")	2
<b>5410</b>	Wrench, Socket, Handle extension (1/2" drive) (set)	2
<b>5415</b>	Wrench, Socket, Reversible ratchet handle (1/4" drive)	2
<b>5420</b>	Wrench, Socket, Reversible ratchet handle (3/8" drive)	4
<b>5425</b>	Wrench, Socket, Reversible ratchet handle (1/2" drive)	6
<b>5430</b>	Wrench, Socket, Speed handle (1/4" drive)	2
<b>5435</b>	Wrench, Socket, Speed handle (3/8" drive)	4
<b>5440</b>	Wrench, Socket, Speed handle (1/2" drive)	6
<b>5450</b>	Wrench, Socket, Universal joint attachment (3/8" drive) (set)	2
<b>5455</b>	Wrench, Socket, Universal joint attachment (1/2" drive) (set)	4
<b>5460</b>	Wrench, Tappet (set)	1
<b>5465</b>	Wrench, Torque (3/8" drive)	1
<b>5470</b>	Wrench, Torque (1/2" drive)	1

**II. Machines and General Equipment**

<b>Code</b>	<b>Item</b>	<b>Number</b>
<b>0045</b>	Anvil	1
<b>0130</b>	Battery Eliminator and Charger	1
<b>0350</b>	Bleeder, Brake	1

<b>5405</b>	Wrench, Socket, Handle extension (1/2" drive) (8")	2
<b>5410</b>	Wrench, Socket, Handle extension (1/2" drive) (set)	2
<b>5415</b>	Wrench, Socket, Reversible ratchet handle (1/4" drive)	2
<b>5420</b>	Wrench, Socket, Reversible ratchet handle (3/8" drive)	4
<b>5425</b>	Wrench, Socket, Reversible ratchet handle (1/2" drive)	6
<b>5430</b>	Wrench, Socket, Speed handle (1/4" drive)	2
<b>5435</b>	Wrench, Socket, Speed handle (3/8" drive)	4
<b>5440</b>	Wrench, Socket, Speed handle (1/2" drive)	6
<b>5445</b>	Wrench, Socket, Universal joint attachment (1/4" drive)	2
<b>5450</b>	Wrench, Socket, Universal joint attachment (3/8" drive) (set)	2
<b>5455</b>	Wrench, Socket, Universal joint attachment (1/2" drive) (set)	4
<b>5460</b>	Wrench, Tappet (set)	1
<b>5465</b>	Wrench, Torque (3/8" drive)	1
<b>5470</b>	Wrench, Torque (1/2" drive)	1

**II. Machines and General Equipment**

<b>Code</b>	<b>Item</b>	<b>Number</b>
<b>0020</b>	Aligner, Connecting rod	1
<b>0030</b>	Alternator-Generator-Regulator Test Stand	1
<b>0035</b>	Analyzer, Capacitor	1
<b>0040</b>	Analyzer, Engine	1
<b>0045</b>	Anvil	1
<b>0130</b>	Battery Eliminator and Charger	1
<b>0350</b>	Bleeder, Brake	1
<b>0420</b>	Boring Bar (cylinder set)	1

0695	Can, Oil filler and measure (1 qt.)	2	0455	Brake, Service shop machine	1
0700	Can, Oil filler and measure (2 qt.)	1	0690	Can, Carwash	1
0705	Can, Oil filler and measure (5 qt.)	1	0695	Can, Oil filler and measure (1 qt.)	2
0710	Can, Oily waste	3	0700	Can, Oil filler and measure (2 qt.)	1
0720	Can, Safety (1 qt.)	3	0705	Can, Oil filler and measure (5 qt.)	1
0725	Can, Safety (1 gal.)	2	0710	Can, Oily waste	3
0955	Cleaner, Spark plug	1	0715	Can, Radiator	1
1330	Drill, Electric, Portable (1/4")	2	0720	Can, Safety (1 qt.)	3
1335	Drill, Electric, Portable (3/8")	1	0725	Can, Safety (1 gal.)	2
1435	Engine, Automobile	1	0735	Carburetor Repair set	1
1440	Engine, Diesel	1	0955	Cleaner, Spark plug	1
1445	Engine, Outboard motor	1	0960	Cleaner, Valve guide	1
1455	Engine, Small (2-cycle)	1	0965	Clutch Aligner	1
1460	Engine, Small (4-cycle)	1	1075	Crane, Portable	1
1470	Engine, Turbine (small)	1	1330	Drill, Electric, Portable (1/4")	2
1930	Grease Gun	1	1335	Drill, Electric, Portable (3/8")	1
1965	Grinder, Edge tool (bench)	1	1340	Drill, Electric, Portable (1/2")	1
2005	Growler, Armature testing	1	1435	Engine, Automobile	1
2010	Gun, Engine cleaning	1	1440	Engine, Diesel	1
2150	Hoist, Double post	1	1445	Engine, Outboard motor	1
2155	Hoist, Single post	1	1450	Engine, Rocket (small or model)	1
			1455	Engine, Small (2-cycle)	1
			1460	Engine, Small (4-cycle)	1
			1465	Engine, Steam (model)	1
			1470	Engine, Turbine (small)	1
			1670	Funnel, Longspout, Automatic transmission	1
			1705	Galvanometer	1
			1930	Grease Gun	1
			1935	Grease Gun, Chassis	1
			1940	Grease Gun, Extended interval	1
			1945	Grease Gun, Gear lube	1
			1965	Grinder, Edge tool (bench)	1
			1970	Grinder, Flexible shaft	1
			1985	Grinder, Pedestal	1
			1995	Grinder, Valve (set)	1
			2005	Growler, Armature testing	1
			2010	Gun, Engine cleaning	1
			2150	Hoist, Double post	1
			2155	Hoist, Single post	1

2160	Hone, Brake cylinder (set)	1	2160	Hone, Brake cylinder (set)	1
			2165	Hone, Cylinder (to 7")	1
			2170	Hone, Pin	1
			2195	Hydraulic Instruction Unit	1
2215	Jack, Auto bumper (double-saddle type)	1	2215	Jack, Auto bumper (double-saddle type)	1
2220	Jack, Auto, Hydraulic (floor type) (1½ ton)	2	2220	Jack, Auto, Hydraulic (floor type) (1½ ton)	2
2225	Jack, Auto, Hydraulic (standard type) (1½ ton)	1	2225	Jack, Auto, Hydraulic (standard type) (1½ ton)	1
			2230	Jack, Auto, Hydraulic (standard type) (2 ton)	1
			2405	Lamps, Drying (set)	1
			2410	Lathe, Armature	1
			2415	Lathe, Metalworking (10")	1
			2470	Lift, Engine safety	1
			2665	Milliammeter, Volt-ohm	2
			2785	Motor Stand, Universal	2
			2795	Multiscope	1
			3190	Pneumatic Instruction Center (pneumatic power unit)	1
3195	Polisher, Body	1	3195	Polisher, Body	1
3250	Press, Drill (15")	1	3250	Press, Drill (15")	1
			3255	Press, Drill (17")	1
			3400	Puller, Auto body metal (set)	1
			3570	Radiator Test Plugs (set)	1
			3595	Reamer, Expansion (set)	1
			3605	Reamer, Valve seat (set)	1
			3615	Refacer, Valve (set)	1
			3655	Rheostat, 10 ohm	1
			3800	Sander, Finishing, Portable, Air	1
			4455	Spray Gun Outfit	1
			4725	Tachometer	1
			4740	Tank, Hot boiling	1
4745	Tank, Parts cleaning, Solvent	1	4745	Tank, Parts cleaning, Solvent	1
			4820	Tester, Coil and condenser	1
			4825	Tester, Distributor	1
			4975	Transformer, Step-down	1
			4980	Transformer, Step-up	1
			5065	Truck, Welding cylinder	1
5140	Vise, Machinist's bench	1	5140	Vise, Machinist's bench	1
			5185	Welder, Arc	1

<b>5520</b>	Welding Outfit, Oxyacetylene	1
<b>5235</b>	Wheel Alignment Set	1
<b>5240</b>	Wheel Balancer	1

**III. General Furnishings**

Code	Item	Number
<b>0210</b>	Bench, Metalworking (4 place)	2
<b>0405</b>	Bookcase	1
<b>0465</b>	Broom, Push	3
<b>0470</b>	Brush, Bench	12
<b>0540</b>	Cabinet, Filing	1
<b>0755</b>	Chair, Teacher's	1
<b>1025</b>	Compressor, Air	1
<b>1235</b>	Desk, Teacher's	1
<b>1592</b>	Fire Blanket	1
<b>1593</b>	Fire Extinguisher	3
<b>1600</b>	First Aid Kit	1
<b>2175</b>	Hose, Air	1
<b>2180</b>	Hose, Exhaust, Garage	1
<b>2185</b>	Hose, Water	1
<b>2932</b>	Pan, Dust	1
<b>2980</b>	Pencil Sharpener, Standard	1
<b>3340</b>	Projector, Filmstrip (35mm) and slide (2" x 2")	1
<b>3345</b>	Projector, Motion picture, Sound	1
<b>3350</b>	Projector, Overhead	1
<b>4010</b>	Screen, Projection	1
<b>4580</b>	Stand, Auto safety (2 ton)	20
<b>4585</b>	Stand, Auto safety (7 ton)	6
<b>4690</b>	Table, Overhead projector	1

**III. General Furnishings**

Code	Item	Number
<b>0210</b>	Bench, Metalworking (4 place)	2
<b>0405</b>	Bookcase	1
<b>0465</b>	Broom, Push	3
<b>0470</b>	Brush, Bench	12
<b>0540</b>	Cabinet, Filing	1
<b>0755</b>	Chair, Teacher's	1
<b>1025</b>	Compressor, Air	1
<b>1235</b>	Desk, Teacher's	1
<b>1592</b>	Fire Blanket	1
<b>1593</b>	Fire Extinguisher	3
<b>1600</b>	First Aid Kit	1
<b>2175</b>	Hose, Air	1
<b>2180</b>	Hose, Exhaust, Garage	1
<b>2185</b>	Hose, Water	1
<b>2932</b>	Pan, Dust	1
<b>2980</b>	Pencil Sharpener, Standard	1
<b>3340</b>	Projector, Filmstrip (35mm) and slide (2" x 2")	1
<b>3345</b>	Projector, Motion picture, Sound	1
<b>3350</b>	Projector, Overhead	1
<b>4010</b>	Screen, Projection	1
<b>4580</b>	Stand, Auto safety (2 ton)	20
<b>4585</b>	Stand, Auto safety (7 ton)	6
<b>4690</b>	Table, Overhead projector	1
<b>5225</b>	Welding Screen, Portable	1

**CERAMICS**

**Introductory**

**I. Raw Material Preparation  
and Storage**

Code	Item	Number
<b>0425</b>	Box, Clay storage, Portable	1
<b>0525</b>	Cabinet, Damp-proof	2

**Advanced**

**I. Raw Material Preparation  
and Storage**

Code	Item	Number
<b>0425</b>	Box, Clay storage, Portable	2
<b>0525</b>	Cabinet, Damp-proof	1
<b>1585</b>	Filter Press (laboratory model)	1

<b>2790</b>	Muller Mixer	1
<b>3385</b>	Pug Mill, Extrusion	1
<b>3380</b>	Pug Mill, Vertical	1
<b>3440</b>	Pulverizer, Laboratory model	1
<b>4625</b>	Storage Unit, Clay	1
<b>5175</b>	Wedging Boards	1
<b>5180</b>	Wedging Table	1

<b>2790</b>	Muller Mixer	1
<b>3370</b>	Pug Mill, Laboratory model	1
<b>3375</b>	Pug Mill, Studio model	1
<b>3380</b>	Pug Mill, Vertical	1
<b>4625</b>	Storage Unit, Clay	2
<b>5180</b>	Wedging Table	1

### II. Material Forming

Code	Item	Number
<b>0110</b>	Banding Wheel, Potter's bench	6
<b>0200</b>	Bench, Marble slab	1
<b>0375</b>	Blunger	1
<b>1385</b>	Dry Press	1
<b>1520</b>	Extrusion Machine, Auger type	1
<b>2250</b>	Jigger, Electric (industrial model)	1
<b>2350</b>	Knife, Mold maker's	6
<b>2695</b>	Mixer, Slow speed (portable)	1
<b>2705</b>	Modeling Tool (set)	6
<b>3050</b>	Plaster Working Tool	6
<b>3200</b>	Potter's Wheel, Electric	1
<b>3205</b>	Potter's Wheel, Kick	1
<b>3210</b>	Potter's Wheel, Side-kick	1
<b>4705</b>	Table, Casting	1
<b>4735</b>	Tank, Agitated storage	1
<b>4895</b>	Throwing Ribs, Wooden (set)	6
<b>5245</b>	Wheel Turning Tool (set)	1

### II. Material Forming

Code	Item	Number
<b>0110</b>	Banding Wheel, Potter's bench	12
<b>0200</b>	Bench, Marble slab	1
<b>0375</b>	Blunger	1
<b>1385</b>	Dry Press	1
<b>1520</b>	Extrusion Machine, Auger type	1
<b>2250</b>	Jigger, Electric (industrial model)	1
<b>2350</b>	Knife, Mold maker's	6
<b>2695</b>	Mixer, Slow speed (portable)	1
<b>2705</b>	Modeling Tool (set)	6
<b>3050</b>	Plaster Working Tool	6
<b>3200</b>	Potter's Wheel, Electric	2
<b>3205</b>	Potter's Wheel, Kick	2
<b>3210</b>	Potter's Wheel, Side-kick	2
<b>4705</b>	Table, Casting	1
<b>4735</b>	Tank, Agitated storage	1
<b>4895</b>	Throwing Ribs, Wooden (set)	6
<b>5245</b>	Wheel Turning Tool (set)	1

### III. Glazing

Code	Item	Number
<b>0105</b>	Ball Mill, Roller type	1
<b>0555</b>	Cabinet, Glaze and library	1
<b>1025</b>	Compressor, Air	1
<b>1915</b>	Graduate, Cylinder (100cc)	3

### III. Glazing

Code	Item	Number
<b>0105</b>	Ball Mill, Roller type	2
<b>0555</b>	Cabinet, Glaze and library	1
<b>1025</b>	Compressor, Air	1
<b>1915</b>	Graduate, Cylinder (100cc)	3

<b>1920</b>	Graduate, Cylinder (500cc)	<b>3</b>
<b>2240</b>	Jars, Grinding	<b>3</b>
<b>2770</b>	Mortar and Pestle	<b>6</b>
<b>3945</b>	Scale, Laboratory	<b>1</b>
<b>3960</b>	Scale, Triple beam	<b>1</b>
<b>4115</b>	Seive, Test laboratory	<b>6</b>
<b>4445</b>	Spray Booth, Dry	<b>1</b>
<b>4460</b>	Spray Gun, Touch-up	<b>1</b>

<b>1920</b>	Graduate, Cylinder (500cc)	<b>3</b>
<b>2240</b>	Jars, Grinding	<b>3</b>
<b>2770</b>	Mortar and Pestle	<b>6</b>
<b>3945</b>	Scale, Laboratory	<b>1</b>
<b>3960</b>	Scale, Triple beam	<b>1</b>
<b>4115</b>	Seive, Test laboratory	<b>6</b>
<b>4445</b>	Spray Booth, Dry	<b>1</b>
<b>4460</b>	Spray Gun, Touch-up	<b>1</b>

#### IV. Enameling

Code	Item	Number
<b>0065</b>	Atomizer	<b>1</b>
<b>1595</b>	Firing Racks	<b>3</b>
<b>1645</b>	Fork, Firing	<b>1</b>
<b>2290</b>	Kiln, Enameling	<b>1</b>
<b>4175</b>	Sifter	<b>2</b>
<b>5040</b>	Trivets	<b>3</b>

#### IV. Enameling

Code	Item	Number
<b>0065</b>	Atomizer	<b>1</b>
<b>1595</b>	Firing Racks	<b>3</b>
<b>1645</b>	Fork, Firing	<b>1</b>
<b>2290</b>	Kiln, Enameling	<b>1</b>
<b>4175</b>	Sifter	<b>3</b>
<b>5040</b>	Trivets	<b>3</b>

#### V. Firing

Code	Item	Number
<b>1680</b>	Furnace, Crucible	<b>1</b>
<b>2280</b>	Kiln Cut-Off, Automatic (heat control device)	<b>1</b>
<b>2285</b>	Kiln, Electric	<b>1</b>
<b>2295</b>	Kiln, Front loading	<b>1</b>
<b>2300</b>	Kiln, Gas	<b>1</b>
<b>2305</b>	Kiln, Starter	<b>1</b>
<b>2310</b>	Kiln, Top loading	<b>1</b>
<b>3510</b>	Pyrometer, Optical	<b>1</b>
<b>3515</b>	Pyrometer, Portable	<b>1</b>
<b>3520</b>	Pyrometer, Radiation	<b>1</b>

#### V. Firing

Code	Item	Number
<b>1680</b>	Furnace, Crucible	<b>1</b>
<b>2280</b>	Kiln Cut-Off, Automatic (heat control device)	<b>1</b>
<b>2285</b>	Kiln, Electric	<b>1</b>
<b>2295</b>	Kiln, Front loading	<b>1</b>
<b>2300</b>	Kiln, Gas	<b>1</b>
<b>2305</b>	Kiln, Starter	<b>1</b>
<b>2310</b>	Kiln, Top loading	<b>1</b>
<b>3510</b>	Pyrometer, Optical	<b>1</b>
<b>3515</b>	Pyrometer, Portable	<b>1</b>
<b>3520</b>	Pyrometer, Radiation	<b>1</b>

#### VI. Decoration—Finishing

Code	Item	Number
<b>0015</b>	Airbrush	<b>1</b>
<b>0530</b>	Cabinet, Drying	<b>1</b>
<b>2325</b>	Knife, Fettling	<b>1</b>
<b>3990</b>	Scraper, Flexible	<b>1</b>
<b>4000</b>	Scraper, Rigid	<b>1</b>
<b>5170</b>	Ware Truck	<b>1</b>

#### VI. Decoration—Finishing

Code	Item	Number
<b>0015</b>	Airbrush	<b>1</b>
<b>0530</b>	Cabinet, Drying	<b>1</b>
<b>2325</b>	Knife, Fettling	<b>1</b>
<b>3990</b>	Scraper, Flexible	<b>1</b>
<b>4000</b>	Scraper, Rigid	<b>1</b>
<b>5170</b>	Ware Truck	<b>1</b>

VII. Cast Stone

Code	Item	Number
2570	Mason's Tools, Cement (set)	1
2775	Mortar Box	1

VII. Cast Stone

Code	Item	Number
2570	Mason's Tools, Cement (set)	1
2775	Mortar Box	1

VIII. General Furnishings and Hand Tools

Code	Item	Number
0255	Bench, Woodworking (4 place)	1
0405	Bookcase	1
0465	Broom, Push	3
0470	Brush, Bench	6
0540	Cabinet, Filing	1
0720	Can, Safety (1 qt.)	2
0725	Can, Safety (1 gal.)	2
0755	Chair, Teacher's	1
1235	Desk, Teacher's	1
1355	Drill, Hand (3/8")	1
1590	Finishing Rubber	1
1592	Fire Blanket	1
1593	Fire Extinguisher	3
1600	First Aid Kit	1
1710	Gauge, Auger bit	1
1855	Gauge, Wire and sheet metal (American)	1
1860	Gauge, Wire and sheet metal (U.S.S.)	1
1900	Goggles (spectacles), Clear observation	12
1960	Grinder-Buffer, Bench, Combination	1
2475	Lift, Pallet	1
2765	Molds, Ceramics, Assorted	6
2932	Pan, Dust	1
2980	Pencil Sharpener, Standard	1
3085	Pliers, Combination (6")	2
3250	Press, Drill (15")	1
3340	Projector, Filmstrip (35mm) and slide (2" x 2")	1

VIII. General Furnishings and Hand Tools

Code	Item	Number
0255	Bench, Woodworking (4 place)	1
0405	Bookcase	1
0465	Broom, Push	3
0470	Brush, Bench	6
0540	Cabinet, Filing	1
0720	Can, Safety (1 qt.)	2
0725	Can, Safety (1 gal.)	2
0755	Chair, Teacher's	1
1125	Crusher, Jaw (laboratory model)	1
1235	Desk, Teacher's	1
1355	Drill, Hand (3/8")	1
1590	Finishing Rubber	1
1592	Fire Blanket	1
1593	Fire Extinguisher	3
1600	First Aid Kit	1
1710	Gauge, Auger bit	1
1855	Gauge, Wire and sheet metal (American)	1
1860	Gauge, Wire and sheet metal (U.S.S.)	1
1900	Goggles (spectacles), Clear observation	12
1960	Grinder-Buffer, Bench, Combination	1
2475	Lift, Pallet	1
2765	Molds, Ceramics, Assorted	6
2932	Pan, Dust	1
2980	Pencil Sharpener, Standard	1
3085	Pliers, Combination (6")	2
3250	Press, Drill (15")	1
3340	Projector, Filmstrip (35mm) and slide (2" x 2")	1

<b>3345</b>	Projector, Motion picture, Sound	1	<b>3345</b>	Projector, Motion picture, Sound	1
<b>3350</b>	Projector, Overhead	1	<b>3350</b>	Projector, Overhead	1
<b>4010</b>	Screen, Projection	1	<b>3450</b>	Pump, Slip, Duplex	1
<b>4165</b>	Shield, Face	6	<b>4010</b>	Screen, Projection	1
<b>4415</b>	Sponge, Elephant ear shape	3	<b>4165</b>	Shield, Face	6
<b>4420</b>	Sponge, Sheep wool	3	<b>4415</b>	Sponge, Elephant ear shape	6
<b>4690</b>	Table, Overhead projector	1	<b>4420</b>	Sponge, Sheep wool	6
			<b>4440</b>	Spray Booth, Ceramic	1
			<b>4690</b>	Table, Overhead projector	1

## DRAFTING

Introductory			Advanced		
I. Audio-Visual Equipment			I. Audio-Visual Equipment		
Code	Item	Number	Code	Item	Number
<b>0985</b>	Compass, Chalkboard	1	<b>0985</b>	Compass, Chalkboard	1
<b>1275</b>	Display Board	1	<b>1275</b>	Display Board	1
<b>1280</b>	Divider, Blackboard	1	<b>1280</b>	Divider, Blackboard	1
<b>3325</b>	Projection Box, Plastic	1	<b>3330</b>	Projection Box, Plastic, Instructor's	1
<b>3340</b>	Projector, Filmstrip (35mm) and slide (2" x 2")	1	<b>3335</b>	Projection Box, Plastic, Student's	1
<b>3345</b>	Projector, Motion picture, Sound	1	<b>3340</b>	Projector, Filmstrip (35mm) and slide (2" x 2")	1
<b>3350</b>	Projector, Overhead	1	<b>3345</b>	Projector, Motion picture, Sound	1
<b>3355</b>	Protractor, Chalkboard	1	<b>3350</b>	Projector, Overhead	1
<b>3930</b>	Scale, Chalkboard (demonstration)	1	<b>3355</b>	Protractor, Chalkboard	1
<b>4010</b>	Screen, Projection	1	<b>3930</b>	Scale, Chalkboard (demonstration)	1
<b>5020</b>	Triangle, Chalkboard, 30°-60°	1	<b>4010</b>	Screen, Projection	1
<b>5025</b>	Triangle, Chalkboard, 45°	1	<b>5020</b>	Triangle, Chalkboard, 30°-60°	1
			<b>5025</b>	Triangle, Chalkboard, 45°	1
II. Instruments and Tools			II. Instruments and Tools		
Code	Item	Number	Code	Item	Number
<b>0480</b>	Brush, Duster, Draftsman's	24	<b>0480</b>	Brush, Duster, Draftsman's	24

<b>0975</b>	Compass and Divider (set)	24	<b>0975</b>	Compass and Divider (set)	24
<b>0980</b>	Compass, Beam	4	<b>0980</b>	Compass, Beam	4
<b>1130</b>	Curve, Irregular (set)	1	<b>0990</b>	Compass, Drop bow	1
<b>1200</b>	Cutter, Paper	1	<b>1130</b>	Curve, Irregular (set)	1
<b>1265</b>	Dispenser, Drafting tape	2	<b>1135</b>	Curve, Rule (adjustable)	1
<b>1480</b>	Eraser Shields	24	<b>1200</b>	Cutter, Paper	1
			<b>1265</b>	Dispenser, Drafting tape	2
			<b>1285</b>	Divider, Proportional	2
			<b>1480</b>	Eraser Shields	24
			<b>1655</b>	Fountain Pen (technical set)	6
<b>2455</b>	Lettering Guide Line Instrument	24	<b>1870</b>	Geometric Shapes (set)	1
<b>2880</b>	Oilstone, Arkansas	1	<b>2455</b>	Lettering Guide Line Instrument	12
			<b>2460</b>	Lettering Set	1
			<b>2880</b>	Oilstone, Arkansas	1
			<b>2935</b>	Pantograph, Drafting	1
			<b>2950</b>	Pen Holder	24
<b>2965</b>	Pencil Pointer, Lead pencil	24	<b>2955</b>	Pen Set	24
<b>2970</b>	Pencil Pointer, Mechanical	1	<b>2960</b>	Pen, Speedball (set)	1
<b>2975</b>	Pencil Sharpener, Draftsman's	1	<b>2965</b>	Pencil Pointer, Lead pencil	24
<b>2980</b>	Pencil Sharpener, Standard	1	<b>2970</b>	Pencil Pointer, Mechanical	1
<b>3365</b>	Protractor, Semi-circular	6	<b>2975</b>	Pencil Sharpener, Draftsman's	1
			<b>2980</b>	Pencil Sharpener, Standard	1
			<b>3365</b>	Protractor, Semi-circular	6
<b>3925</b>	Scale, Architect's	24	<b>3630</b>	Repair Kit, Drafting instrument	1
			<b>3925</b>	Scale, Architect's	24
<b>3950</b>	Scale, Mechanical engineer's	6	<b>3935</b>	Scale, Decimal, Civil engineer's	12
<b>3965</b>	Scissors	1	<b>3950</b>	Scale, Mechanical engineer's	12
			<b>3955</b>	Scale, Metric	1
			<b>3965</b>	Scissors	1
			<b>4190</b>	Sign-maker Set	1
			<b>4635</b>	Straight Edge, Parallel ruling	12
			<b>4780</b>	Template, Architectural	12
			<b>4785</b>	Template, Electronic	6
			<b>4790</b>	Template, Isometric circle	6
			<b>4795</b>	Template, Isometric circle, Large	6
			<b>4800</b>	Template, Large circle	24
			<b>4805</b>	Template, Nuts and bolts	5

4990 Triangle, 30°-60° (8") 24

5000 Triangle, 45° (6") 24

5070 T Square 24

4995 Triangles, 30°-60°  
(10" and 12") 24

5005 Triangle, 45° (8") 24

5010 Triangle, 45° (12") 3

5015 Triangle, Adjustable (10") 6

5070 T Square 24

III. Machines

Code Item Number

2515 Machine, Reproduction  
(dry type) 1

2520 Machine, Reproduction  
(moist type) 1

2565 Marking Tool, Electric 1

III. Machines

Code Item Number

1485 Erasing, Machine, Elec. 1

2505 Machine, Drafting (18") 8

2510 Machine, Drafting (24") 4

2515 Machine, Reproduction  
(dry type) 1

2520 Machine, Reproduction  
(moist type) 1

2565 Marking Tool, Electric 1

IV. General Furnishings

Code Item Number

0385 Board, Drafting 24

0405 Bookcase 1

0465 Broom, Push 2

0470 Brush, Bench 12

0540 Cabinet, Filing 1

0620 Cabinet, Storage 2

0755 Chair, Teacher's 1

1235 Desk, Teacher's 1

1240 Desk, Teacher's standing 1

2932 Pan, Dust 1

4610 Stool, Instructor's 1

4615 Stool, Student's  
adjustable 24

4670 Table, Drafting 24

4690 Table, Overhead  
projector 1

IV. General Furnishings

Code Item Number

0385 Board, Drafting 24

0405 Bookcase 1

0465 Broom, Push 2

0470 Brush, Bench 12

0540 Cabinet, Filing 1

0620 Cabinet, Storage 2

0755 Chair, Teacher's 1

1235 Desk, Teacher's 1

1240 Desk, Teacher's standing 1

1555 File, Drafting 1

1660 Frame, Printing 1

2932 Pan, Dust 1

3550 Rack, Magazine 1

4610 Stool, Instructor's 1

4615 Stool, Student's  
adjustable 24

4670 Table, Drafting 24

4690 Table, Overhead  
projector 1

4700 Table, Planning 1

V. Miscellaneous

Code	Item	Number
1250	Die, Letter (set)	1
1255	Die, Number (set)	1
1495	Extension Cord	1
1593	Fire Extinguisher	1
1600	First Aid Kit	1
1855	Gauge, Wire and sheet metal (American)	1
1860	Gauge, Wire and sheet metal (U.S.S.)	1
2085	Hammer, Claw (16 oz.)	1
3155	Pliers, Straight nose	1
3495	Punch, Paper	1
4050	Screwdriver, Phillips (set)	1
4070	Screwdriver, Standard bit (round blade) (set)	1
4080	Screwdriver, Standard bit (square blade) (6")	1
4595	Stapler, Hand	1

V. Miscellaneous

Code	Item	Number
0645	Caliper, Inside (6")	1
0655	Caliper, Outside (6")	1
1250	Die, Letter (set)	1
1255	Die, Number (set)	1
1495	Extension Cord	1
1593	Fire Extinguisher	1
1600	First Aid Kit	1
1800	Gauge, Screw pitch	1
1855	Gauge, Wire and sheet metal (American)	1
1860	Gauge, Wire and sheet metal (U.S.S.)	1
2085	Hammer, Claw (16 oz.)	1
2315	Knife, Carving (set)	6
2625	Micrometer, Outside (1")	1
3155	Pliers, Straight nose	1
3495	Punch, Paper	1
3710	Rule, Flexible, Steel tape (12')	1
3723	Rule, Flexible, Steel tape (100')	1
4050	Screwdriver, Phillips (set)	1
4070	Screwdriver, Standard bit (round blade) (set)	1
4080	Screwdriver, Standard bit (square blade) (6")	1
4485	Square, Combination set (with protractor and center head)	1
4595	Stapler, Hand	1
4775	T Bevel, Sliding	1

**ELECTRICITY-ELECTRONICS**

**Introductory**

I. Small Tools and Equipment

Code	Item	Number
0025	Alignment Tool (set)	2
0285	Bit, Auger (set)	1
0335	Bit, Screwdriver (set)	2
0340	Bit, Speed (set)	2
0430	Brace, Ratchet	1

**Advanced**

I. Small Tools and Equipment

Code	Item	Number
0025	Alignment Tool (set)	2
0285	Bit, Auger (set)	1
0335	Bit, Screwdriver (set)	2
0340	Bit, Speed (set)	2
0430	Brace, Ratchet	1

<b>0450</b>	<b>Brake, Box and pan</b>	<b>1</b>	<b>0450</b>	<b>Brake, Box and pan</b>	<b>1</b>
<b>0780</b>	<b>Chisel, Cold (set)</b>	<b>1</b>	<b>0780</b>	<b>Chisel, Cold (set)</b>	<b>1</b>
<b>0970</b>	<b>Coil Winder</b>	<b>1</b>	<b>0970</b>	<b>Coil Winder</b>	<b>1</b>
<b>1070</b>	<b>Countersink, High speed</b>	<b>1</b>	<b>1070</b>	<b>Countersink, High speed</b>	<b>1</b>
<b>1090</b>	<b>Crimping Tool</b>	<b>2</b>	<b>1090</b>	<b>Crimping Tool</b>	<b>2</b>
<b>1250</b>	<b>Die, Letter (set)</b>	<b>1</b>	<b>1250</b>	<b>Die, Letter (set)</b>	<b>1</b>
<b>1255</b>	<b>Die, Number (set)</b>	<b>1</b>	<b>1255</b>	<b>Die, Number (set)</b>	<b>1</b>
<b>1305</b>	<b>Divider, Wing</b>	<b>1</b>	<b>1305</b>	<b>Divider, Wing</b>	<b>1</b>
<b>1330</b>	<b>Drill, Electric, Portable (1/4")</b>	<b>1</b>	<b>1330</b>	<b>Drill, Electric, Portable (1/4")</b>	<b>1</b>
<b>1350</b>	<b>Drill, Hand (1/4")</b>	<b>1</b>	<b>1350</b>	<b>Drill, Hand (1/4")</b>	<b>1</b>
<b>1360</b>	<b>Drill Stand, Fractional</b>	<b>1</b>	<b>1360</b>	<b>Drill Stand, Fractional</b>	<b>1</b>
<b>1365</b>	<b>Drill, Twist (letter set)</b>	<b>1</b>	<b>1365</b>	<b>Drill, Twist (letter set)</b>	<b>1</b>
<b>1370</b>	<b>Drill, Twist (number set)</b>	<b>1</b>	<b>1370</b>	<b>Drill, Twist (number set)</b>	<b>1</b>
<b>1375</b>	<b>Drill, Twist, Straight shank (fractional set)</b>	<b>1</b>	<b>1375</b>	<b>Drill, Twist, Straight shank (fractional set)</b>	<b>1</b>
<b>1495</b>	<b>Extension Cord</b>	<b>2</b>	<b>1495</b>	<b>Extension Cord</b>	<b>2</b>
<b>1540</b>	<b>Files (see specifications for listing)</b>		<b>1540</b>	<b>Files (see specifications for listing)</b>	
<b>1550</b>	<b>File Card and Brush</b>	<b>6</b>	<b>1550</b>	<b>File Card and Brush</b>	<b>6</b>
<b>1565</b>	<b>File, Jeweler's (set)</b>	<b>1</b>	<b>1565</b>	<b>File, Jeweler's (set)</b>	<b>1</b>
<b>1570</b>	<b>File, Needle (set)</b>	<b>1</b>	<b>1570</b>	<b>File, Needle (set)</b>	<b>1</b>
<b>1710</b>	<b>Gauge, Auger bit</b>	<b>1</b>	<b>1710</b>	<b>Gauge, Auger bit</b>	<b>1</b>
<b>1800</b>	<b>Gauge, Screw pitch</b>	<b>1</b>	<b>1800</b>	<b>Gauge, Screw pitch</b>	<b>1</b>
<b>1830</b>	<b>Gauge, Thickness ("feeler")</b>	<b>1</b>	<b>1830</b>	<b>Gauge, Thickness ("feeler")</b>	<b>1</b>
<b>1855</b>	<b>Gauge, Wire and sheet metal (American)</b>	<b>1</b>	<b>1855</b>	<b>Gauge, Wire and sheet metal (American)</b>	<b>1</b>
<b>1860</b>	<b>Gauge, Wire and sheet metal (U.S.S.)</b>	<b>1</b>	<b>1860</b>	<b>Gauge, Wire and sheet metal (U.S.S.)</b>	<b>1</b>
<b>1900</b>	<b>Goggles (spectacles), Clear observation</b>	<b>12</b>	<b>1900</b>	<b>Goggles (spectacles), Clear observation</b>	<b>12</b>
<b>1985</b>	<b>Grinder, Pedestal</b>	<b>1</b>	<b>1985</b>	<b>Grinder, Pedestal</b>	<b>1</b>
<b>2030</b>	<b>Hammer, Ball peen (12 oz.)</b>	<b>6</b>	<b>2030</b>	<b>Hammer, Ball peen (12 oz.)</b>	<b>6</b>
<b>2035</b>	<b>Hammer, Ball peen (16 oz.)</b>	<b>6</b>	<b>2035</b>	<b>Hammer, Ball peen (16 oz.)</b>	<b>6</b>
<b>2085</b>	<b>Hammer, Claw (16 oz.)</b>	<b>6</b>	<b>2085</b>	<b>Hammer, Claw (16 oz.)</b>	<b>6</b>
<b>2320</b>	<b>Knife, Electrician's</b>	<b>6</b>	<b>2320</b>	<b>Knife, Electrician's</b>	<b>6</b>
<b>2490</b>	<b>Light, Extension</b>	<b>2</b>	<b>2490</b>	<b>Light, Extension</b>	<b>2</b>
<b>2530</b>	<b>Magnet, Bar</b>	<b>24</b>	<b>2530</b>	<b>Magnet, Bar</b>	<b>24</b>
<b>2830</b>	<b>Nibbler, Hand operated</b>	<b>2</b>	<b>2830</b>	<b>Nibbler, Hand operated</b>	<b>2</b>
<b>2865</b>	<b>Oiler, Bench</b>	<b>1</b>	<b>2865</b>	<b>Oiler, Bench</b>	<b>1</b>
<b>2890</b>	<b>Oilstone, Combination, India</b>	<b>2</b>	<b>2890</b>	<b>Oilstone, Combination, India</b>	<b>2</b>
<b>2895</b>	<b>Oilstone, Combination, Silicon carbide</b>	<b>2</b>	<b>2895</b>	<b>Oilstone, Combination, Silicon carbide</b>	<b>2</b>
<b>3085</b>	<b>Pliers, Combination (6")</b>	<b>12</b>	<b>3085</b>	<b>Pliers, Combination (6")</b>	<b>12</b>
<b>3095</b>	<b>Pliers, Duckbill</b>	<b>6</b>	<b>3095</b>	<b>Pliers, Duckbill</b>	<b>6</b>
<b>3100</b>	<b>Pliers, Diagonal cutting</b>	<b>12</b>	<b>3100</b>	<b>Pliers, Diagonal cutting</b>	<b>12</b>
<b>3135</b>	<b>Pliers, Needle nose</b>	<b>12</b>	<b>3135</b>	<b>Pliers, Needle nose</b>	<b>12</b>

<b>3150</b>	<b>Pliers, Side-cutting (6")</b>	<b>12</b>	<b>3150</b>	<b>Pliers, Side-cutting (6")</b>	<b>12</b>
<b>3170</b>	<b>Pliers, Vise-grip wrench</b>	<b>3</b>	<b>3170</b>	<b>Pliers, Vise-grip wrench</b>	<b>3</b>
<b>3250</b>	<b>Press, Drill</b>	<b>1</b>	<b>3250</b>	<b>Press, Drill</b>	<b>1</b>
<b>3455</b>	<b>Punch, Center (set)</b>	<b>2</b>	<b>3455</b>	<b>Punch, Center (set)</b>	<b>2</b>
<b>3460</b>	<b>Punch, Chassis (round set)</b>	<b>1</b>	<b>3460</b>	<b>Punch, Chassis (round set)</b>	<b>1</b>
<b>3465</b>	<b>Punch, Chassis (square set)</b>	<b>1</b>	<b>3465</b>	<b>Punch, Chassis (square set)</b>	<b>1</b>
<b>3500</b>	<b>Punch, Pin (set)</b>	<b>2</b>	<b>3500</b>	<b>Punch, Pin (set)</b>	<b>2</b>
<b>3590</b>	<b>Reamer, Electrician's hand</b>	<b>1</b>	<b>3590</b>	<b>Reamer, Electrician's hand</b>	<b>1</b>
<b>3750</b>	<b>Rule, Steel (12")</b>	<b>6</b>	<b>3750</b>	<b>Rule, Steel (12")</b>	<b>6</b>
<b>3845</b>	<b>Saw, Coping</b>	<b>1</b>	<b>3845</b>	<b>Saw, Coping</b>	<b>1</b>
<b>3850</b>	<b>Saw, Hack (hand)</b>	<b>4</b>	<b>3850</b>	<b>Saw, Hack (hand)</b>	<b>4</b>
<b>3865</b>	<b>Saw, Hand, Crosscut</b>	<b>1</b>	<b>3865</b>	<b>Saw Hand, Crosscut</b>	<b>1</b>
<b>3965</b>	<b>Scissors</b>	<b>1</b>	<b>3965</b>	<b>Scissors</b>	<b>1</b>
<b>4030</b>	<b>Screwdriver, Insulated (set)</b>	<b>12</b>	<b>4030</b>	<b>Screwdriver, Insulated (set)</b>	<b>12</b>
<b>4050</b>	<b>Screwdriver, Phillips (set)</b>	<b>4</b>	<b>4050</b>	<b>Screwdriver, Phillips (set)</b>	<b>4</b>
<b>4055</b>	<b>Screwdriver, Retaining type</b>	<b>2</b>	<b>4055</b>	<b>Screwdriver, Retaining type</b>	<b>2</b>
<b>4150</b>	<b>Shear, Squaring foot</b>		<b>4150</b>	<b>Shear, Squaring foot</b>	<b>1</b>
<b>4165</b>	<b>Shield, Face</b>	<b>6</b>	<b>4165</b>	<b>Shield, Face</b>	<b>6</b>
<b>4250</b>	<b>Snip, Aviation (left)</b>	<b>2</b>	<b>4250</b>	<b>Snip, Aviation (left)</b>	<b>2</b>
<b>4255</b>	<b>Snip, Aviation (right)</b>	<b>2</b>	<b>4255</b>	<b>Snip, Aviation (right)</b>	<b>2</b>
<b>4275</b>	<b>Snips, Tinner's, Straight (#8)</b>	<b>3</b>	<b>4275</b>	<b>Snips, Tinner's, Straight (#8)</b>	<b>3</b>
<b>4295</b>	<b>Soldering Copper, Electric (60W)</b>	<b>6</b>			
<b>4310</b>	<b>Soldering Copper, Electric pencil</b>	<b>6</b>	<b>4310</b>	<b>Soldering Copper, Electric pencil</b>	<b>6</b>
<b>4335</b>	<b>Soldering Gun, Electric</b>	<b>4</b>	<b>4335</b>	<b>Soldering Gun, Electric</b>	<b>4</b>
<b>4480</b>	<b>Square, Combination</b>	<b>3</b>	<b>4480</b>	<b>Square, Combination</b>	<b>3</b>
<b>4490</b>	<b>Square, Steel framing</b>	<b>1</b>	<b>4490</b>	<b>Square, Steel framing</b>	<b>1</b>
			<b>4495</b>	<b>Square, Try (6")</b>	<b>6</b>
<b>4760</b>	<b>Tap and Die, NC (U.S. standard) (set)</b>	<b>1</b>	<b>4760</b>	<b>Tap and Die, NC (U.S. standard) (set)</b>	<b>1</b>
<b>4765</b>	<b>Tap and Die, NF (S.A.E.) (set)</b>	<b>1</b>	<b>4765</b>	<b>Tap and Die, NF (S.A.E.) (set)</b>	<b>1</b>
<b>4770</b>	<b>Tap and Die, Pipe (set)</b>	<b>1</b>	<b>4770</b>	<b>Tap and Die, Pipe (set)</b>	<b>1</b>
<b>5195</b>	<b>Welder, Spot</b>	<b>1</b>	<b>5195</b>	<b>Welder, Spot</b>	<b>1</b>
<b>5255</b>	<b>Wrench, Adjustable end (6")</b>	<b>4</b>	<b>5255</b>	<b>Wrench, Adjustable end (6")</b>	<b>4</b>
<b>5280</b>	<b>Wrench, Allen key (hex) (set)</b>	<b>2</b>	<b>5280</b>	<b>Wrench, Allen key (hex) (set)</b>	<b>2</b>
<b>5330</b>	<b>Wrench, Nutdriver (set)</b>	<b>2</b>	<b>5330</b>	<b>Wrench, Nutdriver (set)</b>	<b>2</b>
<b>5335</b>	<b>Wrench, Open end (set)</b>	<b>1</b>	<b>5335</b>	<b>Wrench, Open end (set)</b>	<b>1</b>
<b>5360</b>	<b>Wrench, Socket (3/8" drive) (set)</b>	<b>1</b>	<b>5360</b>	<b>Wrench, Socket (3/8" drive) (set)</b>	<b>1</b>

**II. Power Supply**

Code	Item	Number
<b>3320</b>	Power Supply, Variable output	6

**II. Power Supply**

Code	Item	Number
<b>3225</b>	Power Supply, Variable output, Filtered	8
<b>4180</b>	Signal Generator	2

**III. Test Equipment**

Code	Item	Number
<b>0730</b>	Capacitor Substitution Box	1
<b>2910</b>	Oscilloscope	6
<b>4185</b>	Signal Tracer	2
<b>4850</b>	Tester, Transistor	1
<b>4855</b>	Tester, Tube	1

**III. Test Equipment**

Code	Item	Number
<b>0730</b>	Capacitor Substitution Box	1
<b>2910</b>	Oscilloscope	6
<b>4185</b>	Signal Tracer	2
<b>4850</b>	Tester, Transistor	1
<b>4855</b>	Tester, Tube	1

**IV. Metering Equipment**

Code	Item	Number
<b>2575</b>	Meter, Ammeter (AC)	1
<b>2585</b>	Meter, Battery tester	1

**IV. Metering Equipment**

Code	Item	Number
<b>2575</b>	Meter, Ammeter (AC)	1
<b>2585</b>	Meter, Battery tester	1
<b>2590</b>	Meter, Galvanometer	1
<b>2595</b>	Meter, Grip dip	1
<b>2610</b>	Meter, Volt-ohm (multi-range)	6
<b>2615</b>	Meter, VTVM	6

**V. General Furnishings**

Code	Item	Number
<b>0190</b>	Bench, Island-double-face	6
<b>0405</b>	Bookcase	1
<b>0465</b>	Broom, Push	3
<b>0540</b>	Cabinet, Filing	1
<b>0565</b>	Cabinet, Instrument storage	2
<b>0590</b>	Cabinet, Parts storage	1
<b>0625</b>	Cabinet, Tool storage	1
<b>0755</b>	Chair, Teacher's	1
<b>1025</b>	Compressor, Air	1
<b>1235</b>	Desk, Teacher's	1
<b>1592</b>	Fire Blanket	1
<b>1593</b>	Fire Extinguisher	3

**V. General Furnishings**

Code	Item	Number
<b>0170</b>	Bench, Electric demonstration	1
<b>0190</b>	Bench, Island-double-face	6
<b>0405</b>	Bookcase	1
<b>0465</b>	Broom, Push	3
<b>0540</b>	Cabinet, Filing	1
<b>0565</b>	Cabinet, Instrument storage	2
<b>0590</b>	Cabinet, Parts storage	1
<b>0625</b>	Cabinet, Tool storage	1
<b>0755</b>	Chair, Teacher's	1
<b>1025</b>	Compressor, Air	1
<b>1235</b>	Desk, Teacher's	1
<b>1592</b>	Fire Blanket	1
<b>1593</b>	Fire Extinguisher	3

<b>1600</b>	<b>First Aid Kit</b>	<b>1</b>	<b>1600</b>	<b>First Aid Kit</b>	<b>1</b>
<b>2932</b>	<b>Pan, Dust</b>	<b>1</b>	<b>2932</b>	<b>Pan, Dust</b>	<b>1</b>
<b>2980</b>	<b>Pencil Sharpener, Standard</b>	<b>1</b>	<b>2980</b>	<b>Pencil Sharpener, Standard</b>	<b>1</b>
<b>3340</b>	<b>Projector, Filmstrip (35mm) and slide (2" x 2")</b>	<b>1</b>	<b>3340</b>	<b>Projector, Filmstrip (35mm) and slide (2" x 2")</b>	<b>1</b>
<b>3345</b>	<b>Projector, Motion picture, Sound</b>	<b>1</b>	<b>3345</b>	<b>Projector, Motion picture, Sound</b>	<b>1</b>
<b>3350</b>	<b>Projector, Overhead</b>	<b>1</b>	<b>3350</b>	<b>Projector, Overhead</b>	<b>1</b>
<b>4010</b>	<b>Screen, Projection</b>	<b>1</b>	<b>4010</b>	<b>Screen, Projection</b>	<b>1</b>
<b>4690</b>	<b>Table, Overhead projector</b>	<b>1</b>	<b>4690</b>	<b>Table, Overhead projector</b>	<b>1</b>

### ELEMENTARY

**Note:**

Quantities of tools presented in this list are arranged into columns according to the requirements of different types of elementary school programs:

Column I—Schools with central activities room for approximately 24 students.

Column II—Activity room adjacent to regular classroom for 4-8 students.

Column III—Work bench(es) and/or tool cabinet in regular classroom—4-8 students.

Column IV—Portable tool kit or cabinet—4-24 students.

Grade level designations in the list are as follows:

A—recommended for K and grades 1-3

B—recommended for grades 4-6

C—recommended for grades 7-8 (when included as a part of the elementary school).

Code	Item	Column:	Quantities Recommended				Grade Level
			I	II	III	IV	
<b>I. Woodworking Tools</b>							
<b>0090</b>	<b>Awl, Scratch</b>		<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>ABC</b>
<b>0185</b>	<b>Bench Hook</b>		<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>ABC</b>
<b>0220</b>	<b>Bench, Saw</b>		<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>ABC</b>
<b>0285</b>	<b>Bit, Auger (set)</b>		<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>ABC</b>
<b>0305</b>	<b>Bit, Expansive</b>		<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>BC</b>
<b>0430</b>	<b>Brace, Ratchet</b>		<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>ABC</b>
<b>0440</b>	<b>Brad Driver</b>		<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>ABC</b>
<b>0520</b>	<b>Burnisher</b>		<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>BC</b>
<b>0765</b>	<b>Chisel, Butt (set)</b>		<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>C</b>
<b>0775</b>	<b>Chisel, Carving (set)</b>		<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>ABC</b>
<b>0780</b>	<b>Chisel, Cold (set)</b>		<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>BC</b>
<b>0850</b>	<b>Clamp, Bar (36")</b>		<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>BC</b>
<b>0865</b>	<b>Clamp, "C" (2")</b>		<b>12</b>	<b>6</b>	<b>6</b>	<b>12</b>	<b>ABC</b>
<b>0870</b>	<b>Clamp, "C" (3")</b>		<b>24</b>	<b>12</b>	<b>12</b>	<b>24</b>	<b>BC</b>
<b>0940</b>	<b>Clamp, Spring (#2)</b>		<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>ABC</b>

<b>1350</b>	Drill, Hand (1/4")	3	2	2	2	ABC
<b>1540</b>	Files (see specifications for listing)					
<b>1550</b>	File Card and Brush	4	2	2	2	ABC
<b>1710</b>	Gauge, Auger bit	1	1	1	1	ABC
<b>2070</b>	Hammer, Claw (7 oz.)	6	4	4	6	ABC
<b>2075</b>	Hammer, Claw (10 oz.)	6	4	4	6	ABC
<b>2080</b>	Hammer, Claw (13 oz.)	4	1	1	4	ABC
<b>2260</b>	Jointer (6")	1				BC
<b>2360</b>	Knife, Putty	1	1	1	1	ABC
<b>2370</b>	Knife, Sloyd	2	2	2	2	ABC
<b>2690</b>	Mitre Box	1			1	ABC
<b>2800</b>	Nail Set (1/16" tip)	1	1	1	1	ABC
<b>2805</b>	Nail Set (3/32" tip)	1	1	1	1	ABC
<b>3000</b>	Plane, Block	2	2	2	2	A
		6	4	4	6	BC
<b>3040</b>	Plane, Smoothing	1	1	1	1	C
<b>3795</b>	Sander, Finishing	1	1	1	1	BC
<b>3820</b>	Saw, Back	6	4	4	6	ABC
<b>3840</b>	Saw, Compass (set)	1	1	1	1	ABC
<b>3845</b>	Saw, Coping	12	8	8	12	ABC
<b>3865</b>	Saw, Hand, Crosscut	6	2	2	6	ABC
<b>3910</b>	Sawhorse (18")	8	4	4	8	ABC
<b>3915</b>	Sawjack	24	6	6	24	ABC
<b>3980</b>	Scraper, Cabinet	4			4	BC
<b>3995</b>	Scraper, Hand	2	2	2	2	ABC
<b>5165</b>	Vise, Woodworker's	2	2	2	2	ABC

## II. Metalworking Tools

<b>1305</b>	Divider, Wing	1	1	1	1	ABC
<b>1320</b>	Dresser, Grinding wheel	1	1	1	1	ABC
<b>1540</b>	Files (see specifications for listing)					
<b>1550</b>	File Card and Brush	24	24	24	24	ABC
<b>1570</b>	File, Needle (set)	1	1	1	1	ABC
<b>1855</b>	Gauge, Wire and sheet metal (American)	1	1	1	1	ABC
<b>1860</b>	Gauge, Wire and sheet metal (U.S.S.)	1	1	1	1	ABC
<b>2015</b>	Hammer, Ball peen (2 oz.)	2	2	2	2	AEC
<b>2020</b>	Hammer, Ball peen (4 oz.)	4	4	4	4	AEC
<b>2065</b>	Hammer, Chipping	1	1	1	1	AEC
<b>2290</b>	Kiln, Enameling	1	1	1	1	BC
<b>3455</b>	Punch, Center (set)	1	1	1	1	BC
<b>3480</b>	Punch, Hand (set)	1	1	1	1	BC
<b>3670</b>	Riveter, "Pop" (set)	1	1	1	1	BC
<b>3850</b>	Saw, Hack (hand)	1	1	1	1	BC
<b>4160</b>	Sheet Metal Tool	1	1	1	1	BC
<b>4260</b>	Snip, Aviation (combination and straight)	1	1	1	1	ABC

<b>4275</b>	<b>Snips, Tinner's, Straight (#8)</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>ABC</b>
<b>4295</b>	<b>Soldering Copper, Electric (60W)</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>BC</b>

### III. Plastics Tools

<b>2190</b>	<b>Hot Plate, Electric</b>	<b>1</b>			<b>1</b>	<b>ABC</b>
<b>2915</b>	<b>Oven</b>	<b>1</b>				<b>ABC</b>
<b>4655</b>	<b>Strip Heater</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>ABC</b>
<b>4880</b>	<b>Thermoforming Press, Vacuum (small)</b>	<b>1</b>				<b>ABC</b>

### IV. Leatherworking Tools

<b>0270</b>	<b>Beveler</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>ABC</b>
<b>0380</b>	<b>Board, Cutting</b>	<b>24</b>	<b>6</b>	<b>6</b>	<b>24</b>	<b>ABC</b>
<b>0810</b>	<b>Chisel, Thonging (4-prong)</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>ABC</b>
<b>0815</b>	<b>Chisel, Thonging (3-prong)</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>ABC</b>
<b>0820</b>	<b>Chisel, Thonging (single-prong) (1/8")</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>ABC</b>
<b>0825</b>	<b>Chisel, Thonging (single-prong) (3/32")</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>ABC</b>
<b>1525</b>	<b>Eyelet Setter</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>ABC</b>
<b>1740</b>	<b>Gauge, Draw</b>	<b>1</b>			<b>1</b>	<b>ABC</b>
<b>2315</b>	<b>Knife, Carving (set)</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>BC</b>
<b>2330</b>	<b>Knife, Head</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>ABC</b>
<b>2365</b>	<b>Knife, Skiving</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>ABC</b>
<b>2380</b>	<b>Knife, Swivel cutter</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>BC</b>
<b>2540</b>	<b>Mallet, Rawhide</b>	<b>12</b>	<b>4</b>	<b>4</b>	<b>12</b>	<b>ABC</b>
<b>3490</b>	<b>Punch, Leather, Revolving</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>BC</b>
<b>4125</b>	<b>Sewing Machine</b>	<b>1</b>				<b>BC</b>
<b>4215</b>	<b>Skife</b>	<b>2</b>			<b>2</b>	<b>ABC</b>
<b>4240</b>	<b>Snap Fastener (set)</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>ABC</b>
<b>4575</b>	<b>Stamp, Leather (see specifications for listing)</b>					<b>ABC</b>
<b>5125</b>	<b>Veiner, Leather stamp</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>ABC</b>

### V. Graphic Arts Tools

<b>0460</b>	<b>Brayer, Block printing</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>BC</b>
<b>1160</b>	<b>Cutter, Linoleum (set) (push-type)</b>	<b>6</b>	<b>4</b>	<b>4</b>	<b>6</b>	<b>BC</b>
<b>1165</b>	<b>Cutter, Linoleum (set) (pull-type)</b>	<b>6</b>	<b>4</b>	<b>4</b>	<b>6</b>	<b>BC</b>
<b>3240</b>	<b>Press, Block printing</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>BC</b>
<b>4220</b>	<b>Slab, Inking</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>ABC</b>

### VI. Ceramics Tools

<b>1880</b>	<b>Gloves, Asbestos (pair)</b>	<b>1</b>				<b>BC</b>
<b>2285</b>	<b>Kiln, Electric</b>	<b>1</b>				<b>ABC</b>
<b>2705</b>	<b>Modeling Tool (set)</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>ABC</b>

<b>3515</b>	Pyrometer, Portable	1				ABC
<b>4415</b>	Sponge, Elephant ear shape	1	1	1	1	ABC
<b>4605</b>	Stilts, Kiln	144				ABC
<b>5030</b>	Triangle, Kiln	144				ABC
<b>VII. Weaving</b>						
<b>2500</b>	Loom, Table	3			3	BC
<b>2815</b>	Needle, Knitting (pair)	12	6	6	12	BC
<b>2825</b>	Needle, Raffia (card)	24	8	8	24	ABC
<b>VIII. General Furnishings</b>						
<b>0175</b>	Bench, Elementary, Work	6	1-6	2		ABC
<b>0255</b>	Bench, Woodworking (4 place)	6	2	2		ABC
<b>0370</b>	Blow Torch	1			1	BC
<b>0405</b>	Bookcase	1	1	1		ABC
<b>0465</b>	Broom, Push	3	3	3		ABC
<b>0470</b>	Brush, Bench	12	4	4	6	ABC
<b>0510</b>	Buffer, Pedestal	4				BC
<b>0540</b>	Cabinet, Filing	1	1	1		ABC
<b>0620</b>	Cabinet, Storage		1	1		ABC
<b>0745</b>	Cart, Stock	1			1	ABC
<b>0750</b>	Cart, Tool				1-2	ABC
<b>0755</b>	Chair, Teacher's	1	1	1		ABC
<b>0995</b>	Compass, Pencil	6	6	6	6	ABC
<b>1150</b>	Cutter, Glass	1	1	1	1	ABC
<b>1235</b>	Desk, Teacher's	1	1	1		ABC
<b>1330</b>	Drill, Electric, Portable (1/4")	1	1	1	1	ABC
<b>1360</b>	Drill Stand, Fractional	1	1	1	1	ABC
<b>1375</b>	Drill, Twist, Straight shank (fractional set)	1	1	1		ABC
<b>1592</b>	Fire Blanket	1	1	1	1	ABC
<b>1593</b>	Fire Extinguisher	2	2	2		ABC
<b>1600</b>	First Aid Kit	1	1	1	1	ABC
<b>1620</b>	Flocking Gun	1				BC
<b>1890</b>	Gloves, Rubber (pair)	1	1	1	1	ABC
<b>1900</b>	Goggles (spectacles), Clear observation	10	4	6	6	ABC
<b>1960</b>	Grinder-Buffer, Bench, Combination	1				BC
<b>2560</b>	Marker, Felt-tip, Color (set)	6	2	2	6	ABC
<b>2865</b>	Oiler, Bench	6	2	2	1	BC
<b>2890</b>	Oilstone, Combination, India	4	2	2	2	ABC
<b>2932</b>	Pan, Dust	1	1	1	1	ABC
<b>2980</b>	Pencil Sharpener, Standard	1	1	1		ABC
<b>2985</b>	Pencil, Woodburning	3	2	2	3	ABC
<b>3085</b>	Pliers, Combination (6")	2	1	1	2	ABC
<b>3100</b>	Pliers, Diagonal-cutting	2	2	2	2	ABC
<b>3105</b>	Pliers, Electrician's	1	1	1	1	A
<b>3135</b>	Pliers, Needle nose	1	1	1	1	ABC
<b>3170</b>	Pliers, Vise-grip wrench	1	1	1	1	BC

<b>3340</b>	<b>Projector, Filmstrip (35mm) and slide (2" x 2")</b>	<b>1</b>	<b>1</b>	<b>1</b>		<b>ABC</b>
<b>3345</b>	<b>Projector, Motion picture, Sound</b>	<b>1</b>	<b>1</b>	<b>1</b>		<b>ABC</b>
<b>3350</b>	<b>Projector, Overhead</b>	<b>1</b>	<b>1</b>	<b>1</b>		<b>ABC</b>
<b>3365</b>	<b>Protractor, Semi-circular</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>ABC</b>
<b>3700</b>	<b>Rule, Flexible, Steel tape (8')</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>ABC</b>
<b>3750</b>	<b>Rule, Steel (12')</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>ABC</b>
<b>3775</b>	<b>Sander, Band</b>	<b>1</b>				<b>BC</b>
<b>3830</b>	<b>Saw, Band, Wood-cutting</b>	<b>1</b>				<b>C</b>
<b>3835</b>	<b>Saw, Circular, Power</b>	<b>1</b>	<b>1</b>			<b>ABC</b>
<b>3885</b>	<b>Saw, Jig (scroll)</b>	<b>1</b>				<b>ABC</b>
<b>3900</b>	<b>Saw, Sabre (bayonet)</b>	<b>1</b>			<b>1</b>	<b>BC</b>
<b>3965</b>	<b>Scissors</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>ABC</b>
<b>4010</b>	<b>Screen, Projection</b>	<b>1</b>	<b>1</b>	<b>1</b>		<b>ABC</b>
<b>4065</b>	<b>Screwdriver, Standard bit (changeable blades) (set)</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>ABC</b>
<b>4070</b>	<b>Screwdriver, Standard bit (round blade) (set)</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>ABC</b>
<b>4165</b>	<b>Shield, Face</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>ABC</b>
<b>4335</b>	<b>Soldering Gun, Electric</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>C</b>
<b>4430</b>	<b>Spoons, Measuring (set)</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>ABC</b>
<b>4490</b>	<b>Square, Steel framing</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>ABC</b>
<b>4495</b>	<b>Square, Try (6')</b>	<b>6</b>	<b>2</b>	<b>2</b>	<b>6</b>	<b>ABC</b>
<b>4500</b>	<b>Square, Try (8')</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>4</b>	<b>ABC</b>
<b>4690</b>	<b>Table, Overhead projector</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>ABC</b>
<b>4775</b>	<b>T Bevel</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>C</b>
<b>5075</b>	<b>Tumbler, Lapidary</b>	<b>1</b>	<b>1</b>	<b>1</b>		<b>BC</b>
<b>5260</b>	<b>Wrench, Adjustable end (8')</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>ABC</b>

### GENERAL SHOP

#### Note:

Because general shop industrial arts experiences are considered exploratory and basic in nature, no equipment has been listed for advanced-level work.

General industrial arts provided in a general shop is intended to offer a wide variety of experiences. To that end, equipment has been listed for ten areas (ceramics, enameling, leatherwork, plastics, drafting, electricity, metalworking, power mechanics, woodworking, and graphic arts). Certain items of equipment appear to be basic to all general shop facilities and are listed under "I. General." Items listed in "I. General" are not repeated in the area sections which follow.

Quantities recommended for sections II through XIX are in terms of "per six students." If the facility being established is to offer a wide variety of experiences, the students would be distributed in small numbers per area and the quantities of tools can be scaled down. Conversely, if all of the students are concentrated in only two or three areas, the quantities listed should be slightly increased.

Quantities recommended for section I are in terms of the number needed for the entire program. Certain minor adjustments up or down may have to be made due to the emphasis placed on individual areas in the local facility.

I. General					
Code	Item	Number			
0085	Awl, Brad	2		1855	Gauge, Wire and sheet metal (American) 2
0090	Awl, Scratch	3		1860	Gauge, Wire and sheet metal (U.S.S.) 2
0245	Bench, Wall type	2		1900	Goggles (spectacles), Clear observation 12
0255	Bench, Woodworking (4 place)	5		1980	Grinder, Oil tool 1
0405	Bookcase	1		2130	Hammer, Soft face (4 oz.) 2
0465	Broom, Push	3		2360	Knife, Putty 3
0470	Brush, Bench	12		2370	Knife, Sloyd 6
0500	Brush, Wire	6		2535	Mallet, Hardwood 2
0510	Buffer, Pedestal	1		2540	Mallet, Rawhide (10 oz.) 2
0540	Cabinet, Filing	2		2865	Oiler, Bench 3
0542	Cabinet, Finishing (storage)	1		2890	Oilstone, Combination, India 1
0585	Cabinet, Paper and drawing storage	1		2895	Oilstone, Combination, Silicon carbide 1
0625	Cabinet, Tool Storage	2		2932	Pan, Dust 2
0645	Caliper, Inside (6")	2		2980	Pencil Sharpener, Standard 1
0650	Caliper, Inside (8")	2		3085	Pliers, Combination (6") 2
0655	Caliper, Outside (6")	2		3090	Pliers, Combination (8") 2
0660	Caliper, Outside (8")	2		3100	Pliers, Diagonal-cutting 2
0710	Can, Oily waste	2		3110	Pliers, End-cutting 2
0720	Can, Safety (1 qt.)	4		3250	Press, Drill (15") 1
0725	Can, Safety (1 gal.)	2		3340	Projector, Filmstrip (35mm) and slide (2" x 2") 1
0755	Chair, Teacher's	1		3345	Projector, Motion picture, Sound 1
0765	Chisel, Butt (set)	2		3350	Projector, Overhead 1
0940	Clamp, Spring (#2)	12		3455	Punch, Center (set) 2
0995	Compass, Pencil	6		3500	Punch, Pin (set) 1
1025	Compressor, Air	1		3695	Rule, Flexible, Steel tape (6') 3
1070	Countersink, High speed	2		3750	Rule, Steel (12") 6
1150	Cutter, Glass	1		3760	Rule, Steel (36") 3
1235	Desk, Teacher's	1		3780	Sander, Belt, Portable, Electric 1
1250	Die, Letter (set)	1		3785	Sander, Combination belt and disc 1
1255	Die, Number (set)	1		3795	Sander, Finishing, Portable, Electric 1
1295	Divider, Spring (6")	1		3850	Saw, Hack (hand) 3
1300	Divider, Spring (8")	1		3855	Saw, Hack, Close quarter 1
1320	Dresser, Abrasive wheel	1		3875	Saw, Jeweler's (4") 1
1330	Drill, Electric, Portable (1/4")	1		3965	Scissors 1
1495	Extension Cord	2			
1540	File (see specifications for listing)				
1545	File, Auger bit	1			
1550	File Card and Brush	6			
1592	Fire Blanket	1			
1593	Fire Extinguisher	3			
1600	First Aid Kit	1			

4010	Screen, Projection	1
4020	Screwdriver, Cabinet tip	2
4035	Screwdriver, Offset, Phillips (set)	1
4045	Screwdriver, Offset, Straight slot (set)	1
4050	Screwdriver, Phillips (set)	1
4070	Screwdriver, Standard bit (round blade) (set)	2
4100	Screwdriver, Standard bit ("stubby")	2
4165	Shield, Face	6
4275	Snips, Tinner's, Straight (#8)	2
4295	Soldering Copper, Electric (60W)	2
4455	Spray Gun Outfit	1
4480	Square, Combination	2
4485	Square, Combination set (with protractor and center head)	1
4490	Square, Steel framing	2
4595	Stapler, Hand	1
4615	Stool, Student's adjustable	6
4665	Table, Blueprint	1
4670	Table, Drafting	6
4690	Table, Overhead projector	1
4760	Tap and Die, NC (U.S. standard) (set)	1
4765	Tap and Die, NF (S.A.E.) (set)	1
4965	Trammel points	1
5135	Vise, Bench, Drill	1
5140	Vise, Machinist's bench	4
5160	Vise, Swivel	1
5255	Wrench, Adjustable end (6")	2
5260	Wrench, Adjustable end (8")	1
5265	Wrench, Adjustable end (10")	1
5270	Wrench, Adjustable end (12")	1
5280	Wrench, Alien key (hex) (set)	2

## II. Ceramics (crafts)

Code	Item	Number
0425	Box, Clay storage, Portable	1
0525	Cabinet, Damp-proof	1
0530	Cabinet, Drying	1
2285	Kiln, Electric	1
2295	Kiln, Front loading	1
2705	Modeling Tool (set)	2
2765	Molds, Ceramics (assorted)	6
2840	Nipper, Tile	2
3200	Potter's Wheel, Electric	1
4750	Tank, Storage, Slip	1
5040	Trivets	6
5180	Wedging Table	1

## III. Crafts—Enameling

Code	Item	Number
0065	Atomizer	1
1640	Fork, Enameling	2
2290	Kiln, Enameling	1
3535	Rack, Enameling	2
4175	Sifter	1
4950	Torch, Gas	1
5080	Tweezers, Bevel point	2

## IV. Crafts—Leather

Code	Item	Number
0095	Awl, Stitching, Automatic	1
0830	Chisel, Thonging (set)	2
1080	Creaser, Adjustable edge	1
1525	Eyelet Setter	1
1535	Fid	1
2340	Knife, Leather	2
2365	Knife, Skiving	2
2380	Knife, Swivel cutter	6
2445	Leather Modeling Tool (set)	2
2820	Needle, Lacing	6
2985	Pencil, Woodburning	1
3490	Punch, Leather, Revolving	2
4140	Shear, Leather	2
4240	Snap Fastener (set)	2

<b>4340</b>	Spacer, Leather marker	<b>2</b>
<b>4575</b>	Stamp, Leather	<b>2</b>

#### V. Crafts—Plastics

<b>Code</b>	<b>Item</b>	<b>Number</b>
<b>2750</b>	Molding Press, Injection (small)	<b>1</b>
<b>2915</b>	Oven	<b>1</b>
<b>4395</b>	Spatula	<b>1</b>
<b>4655</b>	Strip heater	<b>1</b>
<b>4875</b>	Thermoforming Press, Vacuum (medium)	<b>1</b>

#### VI. Drafting Tools

<b>Code</b>	<b>Item</b>	<b>Number</b>
<b>0385</b>	Board, Drafting	<b>6</b>
<b>0480</b>	Brush, Duster, Draftsman's	<b>6</b>
<b>0975</b>	Compass and Divider (set)	<b>6</b>
<b>0985</b>	Compass, Chalkboard	<b>1</b>
<b>1130</b>	Curve, Irregular (set)	<b>2</b>
<b>1200</b>	Cutter, Paper	<b>1</b>
<b>1480</b>	Eraser Shields	<b>6</b>
<b>2460</b>	Lettering Set	<b>1</b>
<b>2505</b>	Machine, Drafting (18")	<b>2</b>
<b>2520</b>	Machine, Reproduction	<b>1</b>
<b>2955</b>	Pen Set	<b>1</b>
<b>2965</b>	Pencil Pointer, Lead pencil	<b>1</b>
<b>3365</b>	Protractor, Semi-circular	<b>2</b>
<b>3495</b>	Punch, Paper	<b>1</b>
<b>3925</b>	Scale, Architect's	<b>6</b>
<b>3935</b>	Scale, Decimal (civil engineer's)	<b>1</b>
<b>4590</b>	Staple Remover	<b>1</b>
<b>4990</b>	Triangle, 30°-60° (8")	<b>6</b>
<b>5005</b>	Triangle, 45° (8")	<b>6</b>
<b>5020</b>	Triangle, Chalkboard	<b>1</b>
<b>5070</b>	T Square	<b>6</b>

#### VII. Electricity—Hand Tools

<b>Code</b>	<b>Item</b>	<b>Number</b>
<b>2575</b>	Meter, Ammeter (AC)	<b>1</b>
<b>2580</b>	Meter, Ammeter (DC)	<b>1</b>

<b>2585</b>	Meter, Battery tester	<b>1</b>
<b>2610</b>	Meter, Volt-ohm (multi-range)	<b>6</b>
<b>2615</b>	Meter, VTVM	<b>1</b>
<b>2910</b>	Oscilloscope	<b>1</b>
<b>3105</b>	Pliers, Electrician's	<b>2</b>
<b>3130</b>	Pliers, Long nose	<b>2</b>
<b>3215</b>	Power Supply, Low voltage	<b>1</b>
<b>3220</b>	Power Supply, Variable output	<b>1</b>
<b>3225</b>	Power Supply, Variable output, Filtered	<b>1</b>
<b>3460</b>	Punch, Chassis (round set)	<b>1</b>
<b>3465</b>	Punch, Chassis (square set)	<b>1</b>
<b>4030</b>	Screwdriver, Insulated (set)	<b>2</b>
<b>4180</b>	Signal Generator	<b>1</b>
<b>4335</b>	Soldering Gun, Electric	<b>2</b>
<b>4840</b>	Tester, Neon lamp type	<b>1</b>
<b>4855</b>	Tester, Tube	<b>1</b>
<b>4970</b>	Transformer, Bell	<b>3</b>
<b>5250</b>	Wire Cutter and Stripper	<b>3</b>
<b>5330</b>	Wrench, Nutdriver (set)	<b>6</b>

#### VIII. Electricity—General Furnishings

<b>Code</b>	<b>Item</b>	<b>Number</b>
<b>0165</b>	Bench, Electric (with test panel)	<b>1</b>
<b>1410</b>	Electricity Demonstration Panel, Teacher's	<b>1</b>
<b>1415</b>	Electricity Training Panel, Student's	<b>3</b>
<b>1420</b>	Electronics Demonstration Panel, Teacher's	<b>1</b>
<b>1425</b>	Electronics Training Panel, Student's	<b>3</b>

#### IX. General Metals—Hand Tools

<b>Code</b>	<b>Item</b>	<b>Number</b>
<b>0045</b>	Anvil	<b>1</b>
<b>0050</b>	Apron, Foundry	<b>2</b>
<b>0055</b>	Apron, Welding	<b>2</b>

<b>0145</b>	Bellows, Molder's	1	<b>3505</b>	Punch, Tinner's (set)	1
<b>0265</b>	Bending Jig, Adjustable	1	<b>3575</b>	Rammer, Hardwood	1
<b>0515</b>	Bulb, Sponge	1	<b>3660</b>	Riddle, Foundry	1
<b>0770</b>	Chisel, Cape	2	<b>3665</b>	Rivet Set	1
<b>0780</b>	Chisel, Cold (set)	2	<b>4105</b>	Scriber	2
<b>0870</b>	Clamp, "C" (3")	3	<b>4110</b>	Seamer, Handy	1
<b>0875</b>	Clamp, "C" (4")	3	<b>4170</b>	Shovel, Square point	1
<b>0880</b>	Clamp, "C" (6")	3	<b>4250</b>	Snip, Aviation (left)	2
<b>0885</b>	Clamp, "C" (8")	6	<b>4255</b>	Snip, Aviation (right)	2
<b>1140</b>	Cutter, Bolt	1	<b>4260</b>	Snip, Aviation (combination and straight)	2
<b>1325</b>	Drill, Blacksmith (set)	1	<b>4265</b>	Snips, Hawksbill	1
<b>1500</b>	Extractor, Screw (set)	1	<b>4270</b>	Snips, Tin, Curved blade	1
<b>1615</b>	Flask, Foundry (small)	3	<b>4390</b>	Sparklighter	6
<b>1725</b>	Gauge, Center	1	<b>4410</b>	Sponge, Bulb	1
<b>1735</b>	Gauge, Depth rule	1	<b>4425</b>	Spoon and Gate Cutter	2
<b>1755</b>	Gauge, Drill point	1	<b>4475</b>	Sprinkling Can	1
<b>1880</b>	Gloves, Asbestos (pair)	1	<b>4510</b>	Stake, Beakhorn	1
<b>1885</b>	Gloves, Leather (pair)	1	<b>4520</b>	Stake, Blowhorn	1
<b>1905</b>	Goggles, Gas welding	2	<b>4530</b>	Stake, Candle mold	1
<b>1910</b>	Goggles, Melter's	2	<b>4540</b>	Stake, Coppersmith square	1
<b>2000</b>	Groover, Hand (set)	1	<b>4555</b>	Stake, Hatchet	1
<b>2020</b>	Hammer, Ball peen (4 oz.)	3	<b>4560</b>	Stake, Hollow mandrel	1
<b>2030</b>	Hammer, Ball peen (12 oz.)	3	<b>4570</b>	Stake, Round head	1
<b>2035</b>	Hammer, Ball peen (16 oz.)	3	<b>4915</b>	Tongs, Blacksmith, Curved lip	1
<b>2065</b>	Hammer, Chipping	1	<b>4920</b>	Tongs, Crucible	1
<b>2090</b>	Hammer, Engineer's (40 oz.)	1	<b>4925</b>	Tongs, Pick-up	1
<b>2100</b>	Hammer, Forming	1	<b>4950</b>	Torch, Gas	1
<b>2110</b>	Hammer, Raising	1	<b>4955</b>	Torch, Propane (kit)	1
<b>2115</b>	Hammer, Riveting, Machinist's	1	<b>5045</b>	Trowel, Foundry	1
<b>2120</b>	Hammer, Setting	2	<b>5050</b>	Trowel, Square, Molder's	1
<b>2135</b>	Hammer, Soft face	2	<b>5055</b>	Trowel, Taper (heart and leaf, Molder's)	1
<b>2140</b>	Helmet, Welding (hand type)	4	<b>5065</b>	Truck, Welding cylinder	1
<b>2145</b>	Helmet, Welding (head type)	2	<b>5155</b>	Vise, Sheet metal	1
<b>2400</b>	Ladle, Bottom pour	1	<b>5185</b>	Welder, Arc	1
<b>2450</b>	Leggings, Molder's	2	<b>5200</b>	Welder, Spot (portable)	1
<b>2625</b>	Micrometer, Outside (1")	1	<b>5220</b>	Welding Outfit, Oxyacetylene	1
<b>2630</b>	Micrometer, Outside (2")	1	<b>5225</b>	Welding Screen, Portable	1
<b>2635</b>	Micrometer, Outside (3")	1			
<b>2710</b>	Mold, Ingot	2			
<b>3125</b>	Pliers, Lineman's	1	<b>X. Metals—Machines</b>		
<b>3135</b>	Pliers, Needle nose	2	<b>Code</b>	<b>Item</b>	<b>Number</b>
<b>3145</b>	Pliers, Round nose	2	<b>0115</b>	Bar Folder	1
<b>3500</b>	Punch, Pin (set)	1	<b>0260</b>	Bender, Universal	1

0450	Brake, Box and pan	1
0510	Buffer, Pedestal	1
1635	Forge, Gas	1
1650	Forming Roll, Slip	1
1675	Furnace, Bench	1
1680	Furnace, Crucible	1
1985	Grinder, Pedestal	1
2415	Lathe, Metalworking (10")	1
2680	Milling Machine, Vertical	1
3235	Press, Arbor	1
3680	Rotary Machine, Combination	1
3860	Saw, Hack, Power	1
4130	Shaper, Metal	1
4150	Shear, Squaring foot	1

#### XI. Metals—General Furnishings

Code	Item	Number
0150	Bench, Arc welding	1
0180	Bench, Welding (gas)	1
0205	Bench, Metalworking (2 place)	4
0212	Bench, Molding	1
0225	Bench, Sheet metal (with stake plates)	1
0230	Bench, Soldering	1
0245	Bench, Wall type	2
1680	Furnace, Crucible	1

#### XII. Power Mechanics—Hand Tools

Code	Item	Number
0005	Adaptor, Socket	2
0010	Adaptor, Socket	2
1030	Compressor, Piston ring	1
1035	Compressor, Valve spring	1
1220	Cutter, Tubing	1
1605	Flaring Tool (set)	1
1625	Flywheel Holder	1
1730	Gauge, Cylinder pressure	1
1760	Gauge, Ignition (set)	1
1810	Gauge, Spark plug	1
1830	Gauge, Thickness ("feeler")	2
1865	Gear Puller	1

2035	Hammer, Ball peen (16 oz.)	3
3070	Pliers, Bent nose	2
3115	Pliers, Hose clamp, Radiator and gas line	1
3135	Pliers, Needle nose	2
3165	Pliers, Tru-arc (#2)	1
3170	Pliers, Vise-grip wrench	2
4285	Socket, Deep spark plug (13/16")	1
4290	Socket, Deep spark plug (1 1/8")	1
5280	Wrench, Allen key (hex) (set)	2
5290	Wrench, Combination box and open end (set)	1
5320	Wrench, Ignition (set)	1
5335	Wrench, Open end (set)	1
5340	Wrench, Pipe (10")	1
5350	Wrench, Pipe (18")	1
5360	Wrench, Socket (3/8" drive) (set)	1
5365	Wrench, Socket (1/2" drive) (set)	1
5420	Wrench, Socket, Reversible ratchet handle (3/8" drive)	1
5425	Wrench, Socket, Reversible ratchet handle (1/2" drive)	1
5465	Wrench, Torque (3/8" drive)	1

#### XIII. Power Mechanics—Machines

Code	Item	Number
1455	Engine, Small (2-cycle)	1
1460	Engine, Small (4-cycle)	1
1995	Grinder, Valve (set)	1
3615	Refacer, Valve (set)	1

#### XIV. Power Mechanics—General Furnishings

Code	Item	Number
0570	Cabinet, Mechanics, Roller	1

**XV. Woodworking—Hand Tools**

Code	Item	Number
0285	Bit, Auger (set)	1
0300	Bit, Electrician's	1
0305	Bit, Expansive	1
0320	Bit, Forstner (machine set)	1
0330	Bit, Plug cutter (set)	1
0335	Bit, Screwdriver (set)	1
0430	Brace, Ratchet	2
0520	Burnisher	1
0775	Chisel, Carving (set)	2
0790	Chisel, Gouge, Inside (set)	1
0805	Chisel, Socket firmer (set)	1
0835	Chisel, Wood turning (set)	2
0850	Clamp, Bar (36")	4
0855	Clamp, Bar (48")	4
0860	Clamp, Bar (60")	2
0910	Clamp, Handscrew (#3/o)	2
0915	Clamp, Handscrew (#0)	2
0920	Clamp, Handscrew (#1)	2
0925	Clamp, Handscrew (#2)	2
0930	Clamp, Handscrew (#3)	2
1065	Countersink Bit (for brace) (set)	1
1350	Drill, Hand (1/4")	1
1355	Drill, Hand (3/8")	1
1360	Drill Stand, Fractional	1
1375	Drill, Twist, Straight shank (fractional set)	1
1710	Gauge, Auger bit	1
1775	Gauge, Marking	3
2070	Hammer, Claw (7 oz.)	2
2080	Hammer, Claw (13 oz.)	3
2085	Hammer, Claw (16 oz.)	3
2245	Jig, Dowelling	1
2465	Level	1
2690	Mitre Box	1
2800	Nail Set (1/16" tip)	3
2835	Nipper, End cutting	1
2885	Oilstone, Carving tool slips (set)	1
2900	Oilstone, Gouge slip	1
2905	Oilstone, Slip	1
3000	Plane, Block	2

3010	Plane, Jack	2
3015	Plane, Jointer	1
3020	Plane, Junior jack	4
3040	Plane, Smoothing	2
3735	Rule, Maple (24")	6
3820	Saw, Back	2
3840	Saw, Compass (set)	2
3845	Saw, Coping	3
3865	Saw, Hand, Crosscut	1
3870	Saw, Hand, Rip	1
3980	Scraper, Cabinet	2
3995	Scraper, Hand	2
4405	Spokeshave, Straight	1
4500	Square, Try (8")	6
4620	Stop, Bench	6
5070	T Square	2

**XVI. Woodworking—Machines**

Code	Item	Number
2260	Jointer (6")	1
2435	Lathe, Wood turning	2
3675	Rouler, Portable, Electric	1
3830	Saw, Band, Wood-cutting	1
3835	Saw, Circular, Power	1
3885	Saw, Jig (scroll)	1
3895	Saw, Radial-arm, Power	1
3900	Saw, Sabre (bayonet)	1
4660	Surfacer (single surface planer)	1

**XVII. Graphic Arts—Hand Tools**

Code	Item	Number
0400	Bone Folder	3
0410	Borders, Decorations, Miscellaneous	1
0720	Can, Safety (1 quart)	2
0760	Chases, Platen	6
1000	Composing Stick (6")	6
1005	Composing Stick (10")	3
1155	Cutter, Lead and slug	1
1160	Cutter, Linoleum (set)	2
1200	Cutter, Paper	1
1655	Fountain Pen (technical set)	1

<b>1690</b>	Furniture, Wood, Fonts	1	<b>4375</b>	Spaces, Assorted fonts (24 point)	1
<b>1765</b>	Gauge, Line (12")	3	<b>4380</b>	Spaces, Assorted fonts (30 point)	1
<b>1790</b>	Gauge, Pin (sets)	6	<b>4385</b>	Spaces, Assorted fonts (36 point)	1
<b>2335</b>	Knife, Ink	2	<b>4590</b>	Staple Remover	1
<b>2375</b>	Knife, Stencil	2	<b>4995</b>	Triangle, 30°-60° (8")	2
<b>2440</b>	Leads (2 point) (25 lb. pkg.)	1	<b>5005</b>	Triangle, 45° (8")	2
<b>2460</b>	Lettering Set	1	<b>5070</b>	T Square	2
<b>2860</b>	Numbering Machine, Press	1	<b>5085</b>	Tweezers, Type	2
<b>2955</b>	Pen Set	1	<b>5090</b>	Type (see specifications for listing)	
<b>2965</b>	Pencil Pointer, Lead pencil	1			
<b>3045</b>	Planer, Type	2			
<b>3495</b>	Punch, Paper	1			
<b>3525</b>	Quoin, Hispeed	12	<b>XVIII.</b>	Graphic Arts—Machines	
<b>3530</b>	Quoin Key, Hispeed	2	<b>Code</b>	<b>Item</b>	<b>Number</b>
<b>3620</b>	Reglets, Wood Font	1	<b>3045</b>	Planer, Type	1
<b>3685</b>	Rule, Brass	1	<b>3275</b>	Press, Padding	1
<b>3925</b>	Scale, Architect's	6	<b>3280</b>	Press, Platen	1
<b>4195</b>	Silk Screen Unit	1	<b>3290</b>	Press, Platen, Hand lever	1
<b>4235</b>	Slugs (6 point) (25 lb. pkg.)	1	<b>3295</b>	Press, Proof	1
<b>4345</b>	Spaces, Assorted fonts (6 point)	1	<b>3305</b>	Press, Rubber stamp	1
<b>4350</b>	Spaces, Assorted fonts (8 point)	1	<b>3320</b>	Printmaker, Graphic arts	1
<b>4355</b>	Spaces, Assorted fonts (10 point)	1	<b>4600</b>	Stapler, Saddle	1
<b>4360</b>	Spaces, Assorted fonts (12 point)	1			
<b>4365</b>	Spaces, Assorted fonts (14 point)	1	<b>XIX.</b>	Graphic Arts—General Furnishings	
<b>4370</b>	Spaces, Assorted fonts (18 point)	1	<b>Code</b>	<b>Item</b>	<b>Number</b>
			<b>0600</b>	Cabinet, Proof press	1
			<b>0630</b>	Cabinet, Type, Double tier	1
			<b>2205</b>	Imposing Stone Table	1

## GRAPHIC ARTS

Introductory			Advanced		
I. Basic Equipment			I. Basic Equipment		
Code	Item	Number	Code	Item	Number
<b>0280</b>	Binding Unit, Plastics	1	<b>0015</b>	Airbrush	1
<b>0360</b>	Block, Proofing	2	<b>0280</b>	Binding Unit, Plastics	1
<b>0390</b>	Boards, Pressing	4	<b>0360</b>	Block, Proofing	2
			<b>0390</b>	Boards, Pressing	4
<b>0675</b>	Camera, Range finder (35mm)	1	<b>0670</b>	Camera, Copying	1
			<b>0675</b>	Camera, Range finder (35mm)	1

<b>0680</b>	Camera (35mm) Single lens reflex	1	<b>0680</b>	Camera (35mm) Single lens reflex	1
<b>0685</b>	Camera, Reflex, Twin lens	2	<b>0685</b>	Camera, Reflex, Twin lens	2
<b>1155</b>	Cutter, Lead and slug	1	<b>1155</b>	Cutter, Lead and slug	1
<b>1200</b>	Cutter, Paper	1	<b>1200</b>	Cutter, Paper	1
<b>1210</b>	Cutter, Round corner	1	<b>1210</b>	Cutter, Round corner	1
<b>1330</b>	Drill, Electric, Portable (1/4")	1	<b>1230</b>	Densitometer, Photo	1
<b>1390</b>	Dryer, Print	1	<b>1330</b>	Drill, Electric, Portable (1/4")	1
			<b>1390</b>	Dryer, Print	1
			<b>1395</b>	Duplicating Machine, Spirit	1
			<b>1400</b>	Duplicating Machine, Stencil	1
<b>1475</b>	Enlarger, Photographic	1	<b>1475</b>	Enlarger, Photographic	2
			<b>1490</b>	Exposure Frame	1
<b>1530</b>	Ferrotypes Plate	4	<b>1530</b>	Ferrotypes Plate	4
			<b>1580</b>	Filter, Photo (set)	1
			<b>1630</b>	Folding Machine	1
<b>1895</b>	Glue Pot	1	<b>1895</b>	Glue Pot	1
<b>2190</b>	Hot Plate, Electric	1	<b>2190</b>	Hot Plate, Electric	1
<b>2205</b>	Imposing Stone Table	1	<b>2205</b>	Imposing Stone Table	1
			<b>2255</b>	Jogger, Paper	1
<b>2600</b>	Meter, Light	1	<b>2600</b>	Meter, Light	1
<b>2685</b>	Mitering Machine	1	<b>2685</b>	Mitering Machine	1
<b>2850</b>	Numbering Machine, Cleaner box	1	<b>2850</b>	Numbering Machine, Cleaner box	1
<b>2855</b>	Numbering Machine, Hand	1	<b>2855</b>	Numbering Machine, Hand	1
<b>2930</b>	Numbering Machine, Press	2	<b>2860</b>	Numbering Machine, Press	2
<b>2930</b>	Pad Counter	1	<b>2930</b>	Pad Counter	1
			<b>2990</b>	Perforator	1
<b>3045</b>	Planer, Type	4	<b>3045</b>	Planer, Type	4
<b>3062</b>	Plate-maker	1	<b>3062</b>	Plate-maker	1
<b>3245</b>	Press, Copying	1	<b>3245</b>	Press, Copying	1
<b>3260</b>	Press, Hot stamping	1	<b>3260</b>	Press, Hot stamping	1
<b>3270</b>	Press, Offset	1	<b>3270</b>	Press Offset	1
<b>3275</b>	Press, Padding	1	<b>3275</b>	Press, Padding	1
<b>3280</b>	Press, Platen	1	<b>3280</b>	Press, Platen	1
			<b>3285</b>	Press, Platen, Automatic feed	1
<b>3290</b>	Press, Platen, Hand lever	2	<b>3290</b>	Press, Platen, Hand lever	2
<b>3295</b>	Press, Proof	1	<b>3295</b>	Press, Proof	1
			<b>3300</b>	Press Proof, Reproduction	1
<b>3305</b>	Press, Rubber stamp	1	<b>3305</b>	Press, Rubber stamp	1
<b>3310</b>	Printer, Contact	1	<b>3310</b>	Printer, Contact	1
<b>3320</b>	Printmaker, Graphic arts	1	<b>3320</b>	Printmaker, Graphic arts	1

<b>3340</b>	Projector, Filmstrip (35mm) and slide (2" x 2")	1	<b>3340</b>	Projector, Filmstrip (35mm) and slide (2" x 2")	1
<b>3345</b>	Projector, Motion picture, Sound	1	<b>3345</b>	Projector, Motion picture, Sound	1
<b>3350</b>	Projector, Overhead	1	<b>3350</b>	Projector, Overhead	1
<b>3495</b>	Punch, Paper	1	<b>3495</b>	Punch, Paper	1
<b>3525</b>	Quoin, Hi-speed	48	<b>3525</b>	Quoin, Hi-speed	48
<b>3530</b>	Quoin Key, Hi-speed	4	<b>3530</b>	Quoin Key, Hi-speed	4
<b>4195</b>	Silk Screen Unit	2	<b>4195</b>	Silk Screen Unit	2
<b>4200</b>	Sinks, Developing	1	<b>4200</b>	Sinks, Developing	1
<b>4205</b>	Sinks, Platemaking	1	<b>4205</b>	Sinks, Platemaking	1
<b>4600</b>	Stapler, Saddle	1	<b>4600</b>	Stapler, Saddle	1
<b>4650</b>	String Holder, Cone	1	<b>4650</b>	String Holder, Cone	1
<b>4730</b>	Tanks, Film development	5	<b>4730</b>	Tanks, Film development	5
<b>4885</b>	Thermometer, Photographic	2	<b>4885</b>	Thermometer, Photographic	2
<b>4905</b>	Timer, Photographic (electric)	2	<b>4905</b>	Timer, Photographic (electric)	2
<b>4910</b>	Timer, Photographic (spring wound)	2	<b>4910</b>	Timer, Photographic (spring wound)	2
<b>4985</b>	Tray, Photographic	12	<b>4985</b>	Tray, Photographic	12
<b>5035</b>	Trimmer, Paper	1	<b>5035</b>	Trimmer, Paper	1
<b>5090</b>	Type, Assorted (see specifications for actual listing)		<b>5090</b>	Type, Assorted (see specifications for actual listing)	
			<b>5095</b>	Typesetter, Linecasting	1
			<b>5100</b>	Typesetter, Photo- headsetter	1
			<b>5105</b>	Typewriter, Electric	1
<b>5110</b>	Typewriter, Standard	1	<b>5115</b>	Vacuum Printing Frame	1

**II. Hand Tools and Miscellaneous Supplies**

<b>Code</b>	<b>Item</b>	<b>Number</b>
<b>0052</b>	Apron, Rubber	2
<b>0080</b>	Awl, Bookbinder's	2
<b>0400</b>	Bone Folder	8
<b>0460</b>	Brayer, Block printing	2
<b>0485</b>	Brush, Flat padding	2
<b>0475</b>	Brush, Bookbinder's	2
<b>0490</b>	Brush, Opaque	6
<b>0740</b>	Cards, Alphabet (set)	2
<b>0760</b>	Chases, Platen	12
<b>1000</b>	Composing Stick (6")	24

**II. Hand Tools and Miscellaneous Supplies**

<b>Code</b>	<b>Item</b>	<b>Number</b>
<b>0052</b>	Apron, Rubber	2
<b>0080</b>	Awl, Bookbinder's	2
<b>0400</b>	Bone Folder	8
<b>0460</b>	Brayer, Block printing	2
<b>0485</b>	Brush, Flat padding	2
<b>0475</b>	Brush, Bookbinder's	2
<b>0490</b>	Brush, Opaque	6
<b>0495</b>	Brush, Type	2
<b>0740</b>	Cards, Alphabet (set)	2
<b>0760</b>	Chases, Platen	12
<b>1000</b>	Composing Stick (6")	24

<b>1005</b>	Composing Stick (10")	<b>6</b>	<b>1005</b>	Composing Stick (10")	<b>6</b>
<b>1010</b>	Composing Stick (12")	<b>2</b>	<b>1010</b>	Composing Stick (12")	<b>2</b>
<b>1015</b>	Composing Stick (15")	<b>1</b>	<b>1015</b>	Composing Stick (15")	<b>1</b>
<b>1020</b>	Composing Stick, Micrometer knee (10")	<b>1</b>	<b>1020</b>	Composing Stick, Micrometer knee (10")	<b>1</b>
<b>1160</b>	Cutter, Linoleum (set)	<b>6</b>	<b>1160</b>	Cutter, Linoleum (set)	<b>6</b>
<b>1250</b>	Die, Letter (set)	<b>1</b>	<b>1250</b>	Die, Letter (set)	<b>1</b>
<b>1255</b>	Die, Number (set)	<b>1</b>	<b>1255</b>	Die, Number (set)	<b>1</b>
<b>1260</b>	Dispenser, Cellophane tape	<b>3</b>	<b>1260</b>	Dispenser, Cellophane tape	<b>3</b>
<b>1270</b>	Dispenser, Gummed paper	<b>1</b>	<b>1270</b>	Dispenser, Gummed paper	<b>1</b>
<b>1350</b>	Drill, Hand (1/4")	<b>1</b>	<b>1350</b>	Drill, Hand (1/4")	<b>1</b>
<b>1355</b>	Drill, Hand (3/8")	<b>1</b>	<b>1355</b>	Drill, Hand (3/8")	<b>1</b>
<b>1360</b>	Drill Stand, Fractional	<b>1</b>	<b>1360</b>	Drill Stand, Fractional	<b>1</b>
<b>1375</b>	Drill, Twist, Straight shank (fractional set)	<b>1</b>	<b>1375</b>	Drill, Twist, Straight shank (fractional set)	<b>1</b>
<b>1540</b>	File (see specifications for set detail)		<b>1540</b>	File (see specifications for set detail)	
<b>1550</b>	File Card and Brush	<b>1</b>	<b>1550</b>	File Card and Brush	<b>1</b>
<b>1690</b>	Furniture, Wood, Fonts	<b>4</b>	<b>1690</b>	Furniture, Wood, Fonts	<b>4</b>
			<b>1695</b>	Galley (10" x 16")	<b>6</b>
			<b>1700</b>	Galley (8 1/4" x 13")	<b>100</b>
<b>1710</b>	Gauge, Auger bit	<b>1</b>	<b>1710</b>	Gauge, Auger bit	<b>1</b>
<b>1765</b>	Gauge, Line (12")	<b>12</b>	<b>1765</b>	Gauge, Line (12")	<b>12</b>
<b>1770</b>	Gauge, Line (18")	<b>6</b>	<b>1770</b>	Gauge, Line (18")	<b>6</b>
<b>1790</b>	Gauge, Pin (sets)	<b>6</b>	<b>1790</b>	Gauge, Pin (sets)	<b>6</b>
<b>1840</b>	Gauge, Type high	<b>1</b>	<b>1840</b>	Gauge, Type high	<b>1</b>
<b>1855</b>	Gauge, Wire and sheet metal (American)	<b>1</b>	<b>1855</b>	Gauge, Wire and sheet metal (American)	<b>1</b>
<b>1860</b>	Gauge, Wire and sheet metal (U.S.S.)	<b>1</b>	<b>1860</b>	Gauge, Wire and sheet metal (U.S.S.)	<b>1</b>
<b>1892</b>	Gloves, Thick rubber	<b>2</b>	<b>1892</b>	Gloves, Thick rubber	<b>2</b>
<b>1925</b>	Graduate, Darkroom	<b>6</b>	<b>1925</b>	Graduate, Darkroom	<b>6</b>
<b>1930</b>	Grease Gun	<b>1</b>	<b>1930</b>	Grease Gun	<b>1</b>
<b>2050</b>	Hammer, Bookbinder's backing	<b>2</b>	<b>2050</b>	Hammer, Bookbinder's backing	<b>2</b>
<b>2085</b>	Hammer, Claw (16 oz.)	<b>1</b>	<b>2085</b>	Hammer, Claw (16 oz.)	<b>1</b>
<b>2335</b>	Knife, Ink	<b>12</b>	<b>2335</b>	Knife, Ink	<b>12</b>
<b>2345</b>	Knife, Make ready and stripping	<b>12</b>	<b>2345</b>	Knife, Make ready and stripping	<b>12</b>
<b>2355</b>	Knife, Padding	<b>2</b>	<b>2355</b>	Knife, Padding	<b>2</b>
<b>2480</b>	Light, Darkroom	<b>4</b>	<b>2480</b>	Light, Darkroom	<b>4</b>
<b>2485</b>	Light, Flood	<b>4</b>	<b>2485</b>	Light, Flood	<b>4</b>
<b>2495</b>	Locks, Magnetic galley	<b>25</b>	<b>2495</b>	Locks, Magnetic galley	<b>25</b>
<b>2525</b>	Magnifiers	<b>4</b>	<b>2525</b>	Magnifiers	<b>4</b>
<b>2540</b>	Mallet, Rawhide	<b>2</b>	<b>2540</b>	Mallet, Rawhide	<b>2</b>
<b>2560</b>	Marker, Felt-tip, Color (set)	<b>6</b>	<b>2560</b>	Marker, Felt-tip, Color (set)	<b>6</b>
<b>2810</b>	Needle Binding	<b>24</b>	<b>2810</b>	Needle Binding	<b>24</b>
<b>2865</b>	Oiler, Bench	<b>4</b>	<b>2865</b>	Oiler, Bench	<b>4</b>
<b>2870</b>	Oiler, Pump	<b>4</b>	<b>2870</b>	Oiler, Pump	<b>4</b>

<b>2890</b>	Oilstone, Combination, India	1	<b>2890</b>	Oilstone, Combination, India	1
<b>2895</b>	Oilstone, Combination, Silicon carbide	1	<b>2895</b>	Oilstone, Combination, Silicon carbide	1
<b>3085</b>	Pliers, Combination (6")	2	<b>3085</b>	Pliers, Combination (6")	2
<b>3170</b>	Pliers, Vise-grip wrench	2	<b>3170</b>	Pliers, Vise-grip wrench	2
<b>3730</b>	Rule, Make-up	12	<b>3730</b>	Rule, Make-up	12
<b>3820</b>	Saw, Back	1	<b>3820</b>	Saw, Back	1
<b>3890</b>	Saw, Printer's trim	1	<b>3890</b>	Saw, Printer's trim	1
<b>3965</b>	Scissors	6	<b>3965</b>	Scissors	6
<b>4015</b>	Screens, Halftone, Contact	6	<b>4015</b>	Screens, Halftone, Contact	6
<b>4070</b>	Screwdriver, Standard bit (round blade) (set)	6	<b>4070</b>	Screwdriver, Standard bit (round blade) (set)	6
<b>4210</b>	Siphon, Photo	1	<b>4210</b>	Siphon, Photo	1
<b>4355</b>	Spaces, Assorted fonts (10 point) (see specifications for listing)		<b>4355</b>	Spaces, Assorted fonts (10 point) (see specifications for listing)	
<b>4360</b>	Spaces, Assorted fonts (12 point) (see specifications for listing)		<b>4360</b>	Spaces, Assorted fonts (12 point) (see specifications for listing)	
<b>4370</b>	Spaces, Assorted fonts (18 point) (see specifications for listing)		<b>4370</b>	Spaces, Assorted fonts (18 point) (see specifications for listing)	
<b>4490</b>	Square, Steel framing	1	<b>4490</b>	Square, Steel framing	1
<b>4595</b>	Stapler, Hand	1	<b>4595</b>	Stapler, Hand	1
<b>4990</b>	Triangle, 30°-60° (8")	8	<b>4990</b>	Triangle, 30°-60° (8")	8
<b>5000</b>	Triangle, 45° (6")	8	<b>5000</b>	Triangle, 45° (6")	8
<b>5070</b>	T Square	4	<b>5070</b>	T Square	4
<b>5085</b>	Tweezers, Type	12	<b>5085</b>	Tweezers, Type	12
<b>5255</b>	Wrench, Adjustable end (6")	1	<b>5255</b>	Wrench, Adjustable end (6")	1
<b>5360</b>	Wrench, Socket (3/8" drive) (set)	1	<b>5360</b>	Wrench, Socket (3/8" drive) (set)	1
<b>5365</b>	Wrench, Socket (1/2" drive) (set)	1	<b>5365</b>	Wrench, Socket (1/2" drive) (set)	1

### III. General Furnishings

Code	Item	Number
<b>0155</b>	Bench, Bookbinding (unit)	1
<b>0405</b>	Bookcase	1
<b>0465</b>	Broom, Push	3
<b>0470</b>	Brush, Bench	12
<b>0535</b>	Cabinet, Drying rack	1
<b>0540</b>	Cabinet, Filing	1
<b>0550</b>	Cabinet, Galley	2

### III. General Furnishings

Code	Item	Number
<b>0155</b>	Bench, Bookbinding (unit)	1
<b>0160</b>	Bench, Demonstration	1
<b>0405</b>	Bookcase	1
<b>0465</b>	Broom, Push	3
<b>0470</b>	Brush, Bench	12
<b>0535</b>	Cabinet, Drying rack	1
<b>0540</b>	Cabinet, Filing	1
<b>0545</b>	Cabinet, Film cutter	1
<b>0550</b>	Cabinet, Galley	2

<b>0560</b>	Cabinet, Ink and roller	1	<b>0560</b>	Cabinet, Ink and roller	1
<b>0595</b>	Cabinet, Plate filing	1	<b>0595</b>	Cabinet, Plate filing	1
<b>0605</b>	Cabinet, Quarter case	1	<b>0605</b>	Cabinet, Quarter case	1
<b>0620</b>	Cabinet, Storage	1	<b>0620</b>	Cabinet, Storage	1
<b>0635</b>	Cabinet, Type, Single tier	2	<b>0635</b>	Cabinet, Type, Single tier	4
<b>0710</b>	Can, Oily waste	2	<b>0710</b>	Can, Oily waste	2
<b>0720</b>	Can, Safety (1 qt.)	2	<b>0720</b>	Can, Safety (1 qt.)	2
<b>0725</b>	Can, Safety (1 gal.)	2	<b>0725</b>	Can, Safety (1 gal.)	2
<b>0728</b>	Can, Safety (5 gal.)	1	<b>0728</b>	Can, Safety (5 gal.)	1
<b>0755</b>	Chair, Teacher's	1	<b>0755</b>	Chair, Teacher's	1
<b>1025</b>	Compressor, Air	1	<b>1025</b>	Compressor, Air	1
<b>1045</b>	Container, Benzene (1 pt.)	4	<b>1045</b>	Container, Benzene (1 pt.)	4
<b>1050</b>	Container, Benzene (1 gal.)	2	<b>1050</b>	Container, Benzene (1 gal.)	2
<b>1055</b>	Container, Benzene (5 gal.)	1	<b>1055</b>	Container, Benzene (5 gal.)	1
<b>1235</b>	Desk, Teacher's	1	<b>1235</b>	Desk, Teacher's	1
<b>1592</b>	Fire Blanket	1	<b>1592</b>	Fire Blanket	1
<b>1593</b>	Fire Extinguisher	3	<b>1593</b>	Fire Extinguisher	3
<b>1600</b>	First Aid Kit	1	<b>1600</b>	First Aid Kit	1
<b>1900</b>	Goggles (spectacles), Clear observation	6	<b>1900</b>	Goggles (spectacles), Clear observation	6
<b>2932</b>	Pan, Dust	1	<b>2932</b>	Pan, Dust	1
<b>2980</b>	Pencil Sharpener, Standard	1	<b>2980</b>	Pencil Sharpener, Standard	1
<b>3560</b>	Rack, Roll, Tympan	1	<b>3560</b>	Rack, Roll, Tympan	1
<b>3565</b>	Rack, Roll, Wrapping paper	1	<b>3565</b>	Rack, Roll, Wrapping paper	1
<b>4010</b>	Screen, Projection	1	<b>4010</b>	Screen, Projection	1
<b>4165</b>	Shield, Face	3	<b>4165</b>	Shield, Face	3
<b>4680</b>	Table, General purpose	3	<b>4680</b>	Table, General purpose	3
<b>4685</b>	Table, Opaquing	4	<b>4685</b>	Table, Opaquing	4
<b>4690</b>	Table, Overhead projector	1	<b>4690</b>	Table, Overhead projector	1
<b>4695</b>	Table, Pilot press	2	<b>4695</b>	Table, Pilot press	2
<b>4720</b>	Table, Typewriter	1	<b>4720</b>	Table, Typewriter	1

## METALWORKING

Introductory			Advanced		
I. Fabricating Machines and Accessories			I. Fabricating Machines and Accessories		
Code	Item	Number	Code	Item	Number
<b>0115</b>	Bar Folder	1	<b>0060</b>	Arbor, Milling machine	2
<b>0260</b>	Bender, Universal	1	<b>0115</b>	Bar Folder	1
			<b>0260</b>	Bender, Universal	1

<b>0450</b>	<b>Brake, Box and pan</b>	<b>1</b>	<b>0415</b>	<b>Boring Bar (set)</b>	<b>2</b>
			<b>0450</b>	<b>Brake, Box and pan</b>	<b>1</b>
<b>0510</b>	<b>Buffer, Pedestal</b>	<b>1</b>	<b>0505</b>	<b>Buffer, Long arm</b>	<b>1</b>
			<b>0840</b>	<b>Chuck, Magnetic</b>	<b>1</b>
			<b>1170</b>	<b>Cutter, Milling machine, End (set)</b>	<b>1</b>
			<b>1175</b>	<b>Cutter, Milling machine, Gear tooth, Involute (set)</b>	<b>1</b>
			<b>1180</b>	<b>Cutter, Milling machine, Helical, Plain</b>	<b>1</b>
			<b>1185</b>	<b>Cutter, Milling machine, Shell and arbor</b>	<b>1</b>
			<b>1190</b>	<b>Cutter, Milling machine, Slitting</b>	<b>1</b>
<b>1225</b>	<b>Cutting-Off Tool, Lathe</b>	<b>6</b>	<b>1225</b>	<b>Cutting-Off Tool, Lathe</b>	<b>6</b>
<b>1330</b>	<b>Drill, Electric, Portable (1/4")</b>	<b>1</b>	<b>1330</b>	<b>Drill, Electric, Portable (1/4")</b>	<b>1</b>
			<b>1335</b>	<b>Drill, Electric, Portable (3/8")</b>	<b>1</b>
			<b>1340</b>	<b>Drill, Electric, Portable (1/2")</b>	<b>1</b>
<b>1430</b>	<b>Electroplating Unit</b>	<b>1</b>	<b>1430</b>	<b>Electroplating Unit</b>	<b>1</b>
<b>1650</b>	<b>Forming Roll, Slip</b>	<b>1</b>	<b>1635</b>	<b>Forge, Gas</b>	<b>1</b>
<b>1680</b>	<b>Furnace, Crucible</b>	<b>1</b>	<b>1650</b>	<b>Forming Roll, Slip</b>	<b>1</b>
<b>1685</b>	<b>Furnace, Heat treating</b>	<b>1</b>	<b>1680</b>	<b>Furnace, Crucible</b>	<b>1</b>
			<b>1685</b>	<b>Furnace, Heat treating</b>	<b>1</b>
			<b>1975</b>	<b>Grinder, Heavy duty pedestal</b>	<b>1</b>
<b>1985</b>	<b>Grinder, Pedestal</b>	<b>1</b>	<b>1985</b>	<b>Grinder, Pedestal</b>	<b>1</b>
			<b>1990</b>	<b>Grinder, Surface</b>	<b>1</b>
			<b>2210</b>	<b>Indicator, Dial test</b>	<b>2</b>
			<b>2275</b>	<b>Jolt Squeezer, Foundry</b>	<b>1</b>
			<b>2385</b>	<b>Knurling Tool, Lathe (coarse)</b>	<b>6</b>
			<b>2390</b>	<b>Knurling Tool, Lathe (fine)</b>	<b>6</b>
			<b>2395</b>	<b>Knurling Tool, Lathe (medium)</b>	<b>6</b>
<b>2415</b>	<b>Lathe, Metalworking (10")</b>	<b>3</b>	<b>2415</b>	<b>Lathe, Metalworking (10")</b>	<b>6</b>
			<b>2420</b>	<b>Lathe, Metalworking (14")</b>	<b>2</b>
			<b>2430</b>	<b>Lathe, Spinning (12")</b>	<b>1</b>
			<b>2550</b>	<b>Mandrel, Expansion (set)</b>	<b>2</b>
			<b>2555</b>	<b>Mandrel Set</b>	<b>1</b>
			<b>2670</b>	<b>Milling Machine, Horizontal</b>	<b>1</b>
			<b>2675</b>	<b>Milling Machine, Universal</b>	<b>1</b>

			2680	Milling Machine, Vertical	1
			2920	Oven, Core	1
			3235	Press, Arbor	1
3250	Press, Drill (15")	2	3250	Press, Drill (15")	1
			3255	Press, Drill (17")	1
			3680	Rotary Machine, Combination	1
			3765	Sand Blaster	1
			3770	Sand Muller	1
			3825	Saw, Band (power), Metal cutting	1
3860	Saw, Hack (power)	1	3860	Saw, Hack (power)	1
			4120	Setting Down Machine	1
			4130	Shaper, Metal	1
			4145	Shear, Ring and circle	1
4150	Shear, Squaring foot	1	4150	Shear, Squaring foot	1
4455	Spray Gun Outfit	1	4455	Spray Gun Outfit	1
			4810	Tension Tester, Core	1
			4835	Tester, Hardness	1
4935	Tool Holder, Lathe (left hand)	6	4935	Tool Holder, Lathe (left hand)	6
4940	Tool Holder, Lathe (right hand)	6	4940	Tool Holder, Lathe (right hand)	6
4945	Tool Holder, Lathe (straight)	6	4945	Tool Holder, Lathe (straight)	6
4950	Torch, Gas	2	4890	Threading Tool, Lathe	2
5185	Welder, Arc	1	4950	Torch, Gas	2
			5185	Welder, Arc	1
5195	Welder, Spot	1	5190	Welder, MIG	1
			5195	Welder, Spot	1
5220	Welding Outfit, Oxyacetylene	1	5205	Welder, TIG	1
			5220	Welding Outfit, Oxyacetylene	1

## II. Hand Tools and Equipment

Code	Item	Number
0045	Anvil	1
0050	Apron, Foundry	2
0052	Apron, Rubber	1
0055	Apron, Welding	2
0090	Awl, Scratch	4
0145	Bellows, Molder's	1
0465	Broom, Push	3
0470	Brush, Bench	12
0500	Brush, Wire	6
0515	Bulb, Sponge	1

## II. Hand Tools and Equipment

Code	Item	Number
0045	Anvil	1
0050	Apron, Foundry	2
0052	Apron, Rubber	2
0055	Apron, Welding	2
0090	Awl, Scratch	4
0145	Bellows, Molder's	1
0465	Broom, Push	3
0470	Brush, Bench	12
0500	Brush, Wire	6
0515	Bulb, Sponge	1
0640	Caliper, Hermaphrodite	2

<b>0645</b>	Caliper, Inside (6")	6	<b>0645</b>	Caliper, Inside (6")	6
<b>0655</b>	Caliper, Outside (6")	6	<b>0655</b>	Caliper, Outside (6")	6
			<b>0660</b>	Caliper, Outside (8")	2
			<b>0665</b>	Caliper, Vernier	1
<b>0710</b>	Can, Oily waste	1	<b>0710</b>	Can, Oily waste	1
<b>0720</b>	Can, Safety (1 qt.)	2	<b>0720</b>	Can, Safety (1 qt.)	2
<b>0725</b>	Can, Safety (1 gal.)	2	<b>0725</b>	Can, Safety (1 gal.)	2
<b>0770</b>	Chisel, Cape	2	<b>0770</b>	Chisel, Cape	2
<b>0780</b>	Chisel, Cold (set)	1	<b>0780</b>	Chisel, Cold (set)	2
<b>0785</b>	Chisel, Diamond point (set)	1	<b>0785</b>	Chisel, Diamond point (set)	2
<b>0800</b>	Chisel, Round nose (set)	1	<b>0800</b>	Chisel, Round nose (set)	2
<b>0875</b>	Clamp, "C" (4")	4	<b>0875</b>	Clamp, "C" (4")	4
<b>0880</b>	Clamp, "C" (6")	4	<b>0880</b>	Clamp, "C" (6")	4
<b>0885</b>	Clamp, "C" (8")	4	<b>0885</b>	Clamp, "C" (8")	4
			<b>0890</b>	Clamp, "C" (10")	4
<b>0895</b>	Clamp, "C" (12")	2	<b>0895</b>	Clamp, "C" (12")	4
<b>1065</b>	Countersink, Bit (for brace) (set)	1			
<b>1070</b>	Countersink, High speed	1			
<b>1095</b>	Crucible (#4)	2	<b>1095</b>	Crucible (#4)	2
<b>1100</b>	Crucible (#10)	2	<b>1100</b>	Crucible (#10)	3
<b>1110</b>	Crucible Hand Shank (#10)	1	<b>1110</b>	Crucible Hand Shank (#10)	1
<b>1112</b>	Crucible Hand Shank (#4)	1	<b>1112</b>	Crucible Hand Shank (#4)	1
<b>1115</b>	Crucible Lifter	1	<b>1115</b>	Crucible Lifter	1
<b>1120</b>	Crucible Ring Shank	1	<b>1120</b>	Crucible Ring Shank	1
<b>1140</b>	Cutter, Bolt	1	<b>1140</b>	Cutter, Bolt	1
			<b>1205</b>	Cutter, Pipe	1
<b>1215</b>	Cutter, Sprue	1	<b>1215</b>	Cutter, Sprue	1
<b>1245</b>	Die, Dapping	1	<b>1245</b>	Die, Dapping	1
<b>1250</b>	Die, Letter (set)	1	<b>1250</b>	Die, Letter (set)	1
<b>1255</b>	Die, Number (set)	1	<b>1255</b>	Die, Number (set)	1
			<b>1290</b>	Divider, Spring (4")	2
<b>1295</b>	Divider, Spring (6")	6	<b>1295</b>	Divider, Spring (6")	4
			<b>1300</b>	Divider, Spring (8")	2
<b>1320</b>	Dresser, Abrasive wheel	1	<b>1320</b>	Dresser, Abrasive wheel	1
<b>1350</b>	Drill, Hand (1/4")	1	<b>1350</b>	Drill, Hand (1/4")	1
<b>1355</b>	Drill, Hand (3/8")	1	<b>1355</b>	Drill, Hand (3/8")	1
<b>1360</b>	Drill Stand, Fractional	1	<b>1360</b>	Drill Stand, Fractional	1
<b>1365</b>	Drill, Twist (letter set)	1	<b>1365</b>	Drill, Twist (letter set)	1
<b>1370</b>	Drill, Twist (number set)	1	<b>1370</b>	Drill, Twist (number set)	1
<b>1375</b>	Drill, Twist, Straight shank (fractional set)	1	<b>1375</b>	Drill, Twist, Straight shank (fractional set)	1
<b>1380</b>	Drill, Twist, Taper shank (fractional set)	1	<b>1380</b>	Drill, Twist, Taper shank (fractional set)	1
<b>1500</b>	Extractor, Screw (set)	1	<b>1500</b>	Extractor, Screw (set)	1

<b>1540</b>	<b>Files (see specifications for set detail)</b>	
<b>1550</b>	<b>File Card and Brush</b>	<b>6</b>
<b>1610</b>	<b>Flask, Foundry (large)</b>	<b>4</b>
<b>1615</b>	<b>Flask, Foundry (small)</b>	<b>4</b>
<b>1725</b>	<b>Gauge, Center</b>	<b>3</b>
<b>1800</b>	<b>Gauge, Screw pitch</b>	<b>1</b>
<b>1830</b>	<b>Gauge, Thickness ("feeler")</b>	<b>1</b>
<b>1855</b>	<b>Gauge, Wire and sheet metal (American)</b>	<b>1</b>
<b>1860</b>	<b>Gauge, Wire and sheet metal (U.S.S.)</b>	<b>1</b>
<b>1880</b>	<b>Gloves, Asbestos (pair)</b>	<b>2</b>
<b>1885</b>	<b>Gloves, Leather (pair)</b>	<b>4</b>
<b>1892</b>	<b>Gloves, Thick rubber (pair)</b>	<b>2</b>
<b>1900</b>	<b>Goggles (spectacles), Clear observation</b>	<b>24</b>
<b>1905</b>	<b>Goggles, Gas welding</b>	<b>3</b>
<b>2000</b>	<b>Groover, Hand (set)</b>	<b>2</b>
<b>2025</b>	<b>Hammer, Ball peen (8 oz.)</b>	<b>2</b>
<b>2030</b>	<b>Hammer, Ball peen (12 oz.)</b>	<b>4</b>
<b>2035</b>	<b>Hammer, Ball peen (16 oz.)</b>	<b>2</b>
<b>2090</b>	<b>Hammer, Engineer's (40 oz.)</b>	<b>2</b>
<b>2095</b>	<b>Hammer, Engineer's (48 oz.)</b>	<b>1</b>
<b>2115</b>	<b>Hammer, Riveting, Machinist's (9 oz.)</b>	<b>2</b>
<b>2130</b>	<b>Hammer, Soft face (4 oz.)</b>	<b>2</b>
<b>2135</b>	<b>Hammer, Soft face (8 oz.)</b>	<b>2</b>
<b>2145</b>	<b>Helmet, Welding (arc) (head type)</b>	<b>2</b>

<b>1540</b>	<b>Files (see specifications for set detail)</b>	
<b>1550</b>	<b>File Card and Brush</b>	<b>6</b>
<b>1610</b>	<b>Flask, Foundry (large)</b>	<b>4</b>
<b>1615</b>	<b>Flask, Foundry (small)</b>	<b>4</b>
<b>1725</b>	<b>Gauge, Center</b>	<b>6</b>
<b>1755</b>	<b>Gauge, Drill point</b>	<b>1</b>
<b>1785</b>	<b>Gauge, Micrometer, Depth</b>	<b>1</b>
<b>1795</b>	<b>Gauge, Radius and fillet</b>	<b>1</b>
<b>1800</b>	<b>Gauge, Screw pitch</b>	<b>1</b>
<b>1805</b>	<b>Gauge, Small hole</b>	<b>1</b>
<b>1820</b>	<b>Gauge, Surface</b>	<b>1</b>
<b>1825</b>	<b>Gauge, Telescopic</b>	<b>1</b>
<b>1830</b>	<b>Gauge, Thickness ("feeler")</b>	<b>1</b>
<b>1850</b>	<b>Gauge, Vernier height</b>	<b>1</b>
<b>1855</b>	<b>Gauge, Wire and sheet metal (American)</b>	<b>1</b>
<b>1860</b>	<b>Gauge, Wire and sheet metal (U.S.S.)</b>	<b>1</b>
<b>1880</b>	<b>Gloves, Asbestos (pair)</b>	<b>2</b>
<b>1885</b>	<b>Gloves, Leather (pair)</b>	<b>6</b>
<b>1892</b>	<b>Gloves, Thick rubber (pair)</b>	<b>2</b>
<b>1900</b>	<b>Goggles (spectacles), Clear observation</b>	<b>24</b>
<b>1905</b>	<b>Goggles, Gas welding</b>	<b>3</b>
<b>2000</b>	<b>Groover, Hand (set)</b>	<b>2</b>
<b>2025</b>	<b>Hammer, Ball peen (8 oz.)</b>	<b>2</b>
<b>2030</b>	<b>Hammer, Ball peen (12 oz.)</b>	<b>4</b>
<b>2035</b>	<b>Hammer, Ball peen (16 oz.)</b>	<b>2</b>
<b>2040</b>	<b>Hammer, Ball peen (30 oz.)</b>	<b>2</b>
<b>2045</b>	<b>Hammer, Ball peen (32 oz.)</b>	<b>2</b>
<b>2065</b>	<b>Hammer, Chipping</b>	<b>2</b>
<b>2090</b>	<b>Hammer, Engineer's (40 oz.)</b>	<b>2</b>
<b>2095</b>	<b>Hammer, Engineer's (48 oz.)</b>	<b>1</b>
<b>2115</b>	<b>Hammer, Riveting, Machinist's (9 oz.)</b>	<b>2</b>
<b>2130</b>	<b>Hammer, Soft face (4 oz.)</b>	<b>2</b>
<b>2135</b>	<b>Hammer, Soft face (8 oz.)</b>	<b>2</b>
<b>2145</b>	<b>Helmet, Welding (arc) (head type)</b>	<b>2</b>

<b>2450</b>	<b>Leggings, Molder's (pair)</b>	<b>2</b>	<b>2450</b>	<b>Leggings, Molder's (pair)</b>	<b>2</b>
<b>2535</b>	<b>Mallet, Hardwood</b>	<b>4</b>	<b>2535</b>	<b>Mallet, Hardwood</b>	<b>4</b>
<b>2540</b>	<b>Mallet, Rawhide</b>	<b>4</b>	<b>2540</b>	<b>Mallet, Rawhide</b>	<b>2</b>
<b>2545</b>	<b>Mallet, Rubber</b>	<b>2</b>	<b>2545</b>	<b>Mallet, Rubber</b>	<b>2</b>
<b>2620</b>	<b>Micrometer, Inside (set)</b>	<b>1</b>	<b>2620</b>	<b>Micrometer, Inside (set)</b>	<b>1</b>
<b>2625</b>	<b>Micrometer, Outside (1")</b>	<b>4</b>	<b>2625</b>	<b>Micrometer, Outside (1")</b>	<b>6</b>
<b>2630</b>	<b>Micrometer, Outside (2")</b>	<b>2</b>	<b>2630</b>	<b>Micrometer, Outside (2")</b>	<b>2</b>
<b>2635</b>	<b>Micrometer, Outside (3")</b>	<b>1</b>	<b>2635</b>	<b>Micrometer, Outside (3")</b>	<b>1</b>
			<b>2650</b>	<b>Micrometer, Outside (screw thread)</b>	<b>1</b>
			<b>2655</b>	<b>Micrometer, Outside (screw thread)</b>	<b>1</b>
<b>2710</b>	<b>Mold, Ingot</b>	<b>1</b>	<b>2710</b>	<b>Mold, Ingot</b>	<b>1</b>
<b>2835</b>	<b>Nipper, End cutting</b>	<b>1</b>	<b>2835</b>	<b>Nipper, End cutting</b>	<b>1</b>
<b>2865</b>	<b>Oiler, Bench</b>	<b>12</b>	<b>2865</b>	<b>Oiler, Bench</b>	<b>12</b>
<b>2890</b>	<b>Oilstone, Combination, India</b>	<b>2</b>	<b>2890</b>	<b>Oilstone, Combination, India</b>	<b>2</b>
<b>2932</b>	<b>Pan, Dust</b>	<b>1</b>	<b>2932</b>	<b>Pan, Dust</b>	<b>1</b>
			<b>2945</b>	<b>Parallels, Adjustable (set)</b>	<b>1</b>
<b>2980</b>	<b>Pencil Sharpener, Standard</b>	<b>1</b>	<b>2980</b>	<b>Pencil Sharpener, Standard</b>	<b>1</b>
			<b>3055</b>	<b>Plate, Angle</b>	<b>2</b>
			<b>3060</b>	<b>Plate, Surface</b>	<b>1</b>
<b>3085</b>	<b>Pliers, Combination (6")</b>	<b>6</b>	<b>3085</b>	<b>Pliers, Combination (6")</b>	<b>6</b>
<b>3090</b>	<b>Pliers, Combination (8")</b>	<b>4</b>	<b>3090</b>	<b>Pliers, Combination (8")</b>	<b>4</b>
<b>3100</b>	<b>Pliers, Diagonal cutting</b>	<b>2</b>	<b>3100</b>	<b>Pliers, Diagonal cutting</b>	<b>2</b>
<b>3135</b>	<b>Pliers, Needle nose</b>	<b>2</b>	<b>3135</b>	<b>Pliers, Needle nose</b>	<b>2</b>
<b>3155</b>	<b>Pliers, Straight nose</b>	<b>2</b>	<b>3155</b>	<b>Pliers, Straight nose</b>	<b>2</b>
<b>3170</b>	<b>Pliers, Vise-grip wrench</b>	<b>2</b>	<b>3170</b>	<b>Pliers, Vise-grip wrench</b>	<b>2</b>
<b>3455</b>	<b>Punch, Center (set)</b>	<b>4</b>	<b>3455</b>	<b>Punch, Center (set)</b>	<b>6</b>
<b>3475</b>	<b>Punch, Drive (set)</b>	<b>1</b>	<b>3475</b>	<b>Punch, Drive (set)</b>	<b>1</b>
<b>3485</b>	<b>Punch, Hollow (set)</b>	<b>1</b>	<b>3485</b>	<b>Punch, Hollow (set)</b>	<b>1</b>
<b>3575</b>	<b>Rammer, Hardwood</b>	<b>2</b>	<b>3575</b>	<b>Rammer, Hardwood</b>	<b>2</b>
<b>3580</b>	<b>Reamer, Center (set)</b>	<b>1</b>	<b>3580</b>	<b>Reamer, Center (set)</b>	<b>1</b>
			<b>3595</b>	<b>Reamer, Expansion (set)</b>	<b>1</b>
<b>3600</b>	<b>Reamer, Pipe</b>	<b>1</b>	<b>3600</b>	<b>Reamer, Pipe</b>	<b>1</b>
<b>3660</b>	<b>Riddle, Foundry</b>	<b>2</b>	<b>3660</b>	<b>Riddle, Foundry</b>	<b>2</b>
<b>3665</b>	<b>Rivet Set (set)</b>	<b>4</b>	<b>3665</b>	<b>Rivet Set (set)</b>	<b>4</b>
<b>3690</b>	<b>Rule, Circumference (36")</b>	<b>2</b>	<b>3690</b>	<b>Rule, Circumference (36")</b>	<b>2</b>
<b>3710</b>	<b>Rule, Flexible, Steel tape (12')</b>	<b>2</b>	<b>3710</b>	<b>Rule, Flexible, Steel tape (12')</b>	<b>2</b>
			<b>3725</b>	<b>Rule, Hook</b>	<b>4</b>
			<b>3740</b>	<b>Rule, Short (set)</b>	<b>1</b>
<b>3745</b>	<b>Rule, Steel (6")</b>	<b>6</b>	<b>3745</b>	<b>Rule, Steel (6")</b>	<b>8</b>
<b>3750</b>	<b>Rule, Steel (12")</b>	<b>12</b>	<b>3750</b>	<b>Rule, Steel (12")</b>	<b>12</b>
<b>3755</b>	<b>Rule, Steel (24")</b>	<b>2</b>	<b>3755</b>	<b>Rule, Steel (24")</b>	<b>2</b>
<b>3850</b>	<b>Saw, Hack (hand)</b>	<b>6</b>	<b>3850</b>	<b>Saw, Hack (hand)</b>	<b>6</b>

<b>3875</b>	Saw, Jeweler's (4")	2	<b>3875</b>	Saw, Jeweler's (4")	2
<b>3880</b>	Saw, Jeweler's (6")	4	<b>3880</b>	Saw, Jeweler's (6")	4
<b>3965</b>	Scissors	1	<b>3965</b>	Scissors	1
<b>4045</b>	Screwdriver, Offset, Straight slot (set)	1	<b>4045</b>	Screwdriver, Offset, Straight slot (set)	1
<b>4050</b>	Screwdriver, Phillips (set)	1	<b>4050</b>	Screwdriver, Phillips (set)	1
<b>4070</b>	Screwdriver, Standard bit (round blade) (set)	2	<b>4070</b>	Screwdriver, Standard bit (round blade) (set)	2
<b>4105</b>	Scriber	6	<b>4105</b>	Scriber	6
<b>4110</b>	Seamer, Handy	2	<b>4110</b>	Seamer, Handy	2
<b>4165</b>	Shield, Face	12	<b>4165</b>	Shield, Face	12
<b>4170</b>	Shovel, Square point	1	<b>4170</b>	Shovel, Square point	1
<b>4222</b>	Sleeves, Molder's	1	<b>4222</b>	Sleeves, Molder's	1
<b>4225</b>	Slick and Oval (1")	1	<b>4225</b>	Slick and Oval (1")	1
<b>4230</b>	Slick and Oval (1 1/4")	1	<b>4230</b>	Slick and Oval (1 1/4")	1
<b>4250</b>	Snip, Aviation (left)	2	<b>4250</b>	Snip, Aviation (left)	2
<b>4255</b>	Snip, Aviation (right)	2	<b>4255</b>	Snip, Aviation (right)	2
<b>4260</b>	Snip, Aviation (com- bination and straight)	2	<b>4260</b>	Snip, Aviation (com- bination and straight)	2
<b>4265</b>	Snips, Hawksbill	1	<b>4265</b>	Snips, Hawksbill	1
<b>4275</b>	Snips, Tinner's, Straight (#8)	4	<b>4275</b>	Snips, Tinner's, Straight (#8)	4
<b>4280</b>	Snips, Tinner's, Straight (#10)	2	<b>4280</b>	Snips, Tinner's, Straight (#10)	2
<b>4295</b>	Soldering Copper, Electric (60W)	1	<b>4295</b>	Soldering Copper, Electric (60W)	1
<b>4300</b>	Soldering Copper, Electric (200W)	1	<b>4300</b>	Soldering Copper, Electric (200W)	1
<b>4315</b>	Soldering Copper (pair) (1/2 lb.)	4	<b>4315</b>	Soldering Copper (pair) (1/2 lb.)	2
<b>4320</b>	Soldering Copper (pair) (1 lb.)	2	<b>4320</b>	Soldering Copper (pair) (1 lb.)	2
<b>4325</b>	Soldering Copper (pair) (1 1/2 lb.)	1	<b>4325</b>	Soldering Copper (pair) (1 1/2 lb.)	1
<b>4390</b>	Sparklighters	6	<b>4390</b>	Sparklighters	6
<b>4480</b>	Square, Combination	6	<b>4480</b>	Square, Combination	6
<b>4485</b>	Square, Combination set (with protractor and center head)	1	<b>4485</b>	Square, Combination set (with protractor and center head)	1
<b>4510</b>	Stake, Beakhorn	1	<b>4510</b>	Stake, Beakhorn	1
<b>4520</b>	Stake, Blowhorn	1	<b>4515</b>	Stake, Bevel edge square	1
			<b>4520</b>	Stake, Blowhorn	1

<b>4530</b>	Stake, Candle mold	1	<b>4525</b>	Stake, Bottom	1
			<b>4530</b>	Stake, Candle mold	1
			<b>4535</b>	Stake, Conductor	1
			<b>4545</b>	Stake, Double seaming	1
			<b>4550</b>	Stake, Grooving	1
<b>4555</b>	Stake, Hatchet	1	<b>4555</b>	Stake, Hatchet	1
<b>4560</b>	Stake, Hollow mandrel	1	<b>4560</b>	Stake, Hollow mandrel	1
			<b>4565</b>	Stake, Needle case	1
			<b>4570</b>	Stake, Round head	1
<b>4755</b>	Tap and Die, Machine screw (set)	1	<b>4755</b>	Tap and Die, Machine screw (set)	1
<b>4760</b>	Tap and Die, NC (U.S. standard) (set)	1	<b>4760</b>	Tap and Die, NC (U.S. standard) (set)	1
<b>4765</b>	Tap and Die, NF (S.A.E.) (set)	1	<b>4765</b>	Tap and Die, NF (S.A.E.) (set)	1
<b>4770</b>	Tap and Die, Pipe (set)	1	<b>4770</b>	Tap and Die, Pipe (set)	1
<b>4915</b>	Tongs, Blacksmith, Curved lip	2	<b>4915</b>	Tongs, Blacksmith, Curved lip	2
<b>4925</b>	Tongs, Pick-up	2	<b>4925</b>	Tongs, Pick-up	2
<b>4965</b>	Trammel Points	1	<b>4965</b>	Trammel Points	1
			<b>5045</b>	Trowel, Foundry	1
<b>5065</b>	Truck, Welding cylinder	1	<b>5065</b>	Truck, Welding cylinder	1
<b>5120</b>	V Block and Clamps (set)	1	<b>5120</b>	V Block and Clamps (set)	2
<b>5130</b>	Vise, Angle, Drill	1	<b>5130</b>	Vise, Angle, Drill	2
<b>5135</b>	Vise, Bench, Drill	2	<b>5135</b>	Vise, Bench, Drill	2
<b>5140</b>	Vise, Machinist's bench	12	<b>5140</b>	Vise, Machinist's bench	12
<b>5150</b>	Vise, Pin (set)	1	<b>5150</b>	Vise, Pin (set)	1
<b>5152</b>	Vise, Pipe	1	<b>5152</b>	Vise, Pipe	1
<b>5255</b>	Wrench, Adjustable end (6")	2	<b>5255</b>	Wrench, Adjustable end (6")	2
<b>5260</b>	Wrench, Adjustable end (8")	2	<b>5260</b>	Wrench, Adjustable end (8")	2
			<b>5265</b>	Wrench, Adjustable end (10")	2
			<b>5270</b>	Wrench, Adjustable end (12")	2
<b>5280</b>	Wrench, Allen key (hex) (set)	1	<b>5280</b>	Wrench, Allen key (hex) (set)	1
<b>5285</b>	Wrench, Box (set)	1	<b>5285</b>	Wrench, Box (set)	1
<b>5335</b>	Wrench, Open end (set)	1	<b>5335</b>	Wrench, Open end (set)	1
<b>5340</b>	Wrench, Pipe (10")	1	<b>5340</b>	Wrench, Pipe (10")	1
			<b>5345</b>	Wrench, Pipe (14")	1
			<b>5350</b>	Wrench, Pipe (18")	1
<b>5360</b>	Wrench, Socket ( $\frac{3}{8}$ " drive) (set)	1	<b>5360</b>	Wrench, Socket ( $\frac{3}{8}$ " drive) (set)	1
<b>5365</b>	Wrench, Socket ( $\frac{1}{2}$ " drive) (set)	1	<b>5365</b>	Wrench, Socket ( $\frac{1}{2}$ " drive) (set)	1

**III. General Furnishings**

Code	Item	Number
0150	Bench, Arc welding	1
0180	Bench, Gas welding	1
0195	Bench, Machine	1
0205	Bench, Metalworking (2 place)	2
0210	Bench, Metalworking (4 place)	4
0212	Bench, Molding	1
0225	Bench, Sheet metal	1
0230	Bench, Soldering	2
0235	Bench, Spot welding	1
0405	Bookcase	1
0540	Cabinet, Filing	1
0542	Cabinet, Finishing (storage)	1
0615	Cabinet, Small parts	1
0620	Cabinet, Storage	4
0625	Cabinet, Tool storage	1
0755	Chair, Teacher's	1
1025	Compressor, Air	1
1235	Desk, Teacher's	1
1592	Fire Blanket	1
1593	Fire Extinguisher	3
1600	First Aid Kit	1
1675	Furnace, Bench	2
3340	Projector, Filmstrip (35mm) and slide (2" x 2")	1
3345	Projector, Motion picture, Sound	1
3350	Projector, Overhead	1
3555	Rack, Metal storage	1
4010	Screen, Projection	1
4615	Stool, Student's adjustable	24
4670	Table, Drafting	1
4690	Table, Overhead projector	1

**III. General Furnishings**

Code	Item	Number
0150	Bench, Arc welding	2
0180	Bench, Gas welding	2
0195	Bench, Machine	1
0205	Bench, Metalworking (2 place)	2
0210	Bench, Metalworking (4 place)	4
0212	Bench, Molding	1
0225	Bench, Sheet metal	1
0230	Bench, Soldering	1
0235	Bench, Spot welding	1
0240	Bench, TIG welding	1
0405	Bookcase	1
0540	Cabinet, Filing	1
0542	Cabinet, Finishing (storage)	1
0615	Cabinet, Small parts	1
0620	Cabinet, Storage	6
0625	Cabinet, Tool storage	1
0755	Chair, Teacher's	1
1025	Compressor, Air	1
1235	Desk, Teacher's	1
1592	Fire Blanket	1
1593	Fire Extinguisher	3
1600	First Aid Kit	1
1675	Furnace, Bench	2
3340	Projector, Filmstrip (35mm) and slide (2" x 2")	1
3345	Projector, Motion picture, Sound	1
3350	Projector, Overhead	1
3555	Rack, Metal storage	1
4010	Screen, Projection	1
4445	Spray Booth, Dry	1
4615	Stool, Student's adjustable	24
4670	Table, Drafting	1
4690	Table, Overhead projector	1

## PLASTICS

Introductory			Advanced		
I. Basic Plastics Equipment			I. Basic Plastics Equipment		
Code	Item	Number	Code	Item	Number
0070	Autoclave	1	0070	Autoclave	1
1510	Extruder, Medium	1	1505	Extruder, Large	1
1515	Extruder, Small	1	1510	Extruder, Medium	1
			1515	Extruder, Small	1
2725	Molding Press, Compression (large)	1	2715	Molder, Blow	1
2730	Molding Press, Compression (medium)	1	2720	Molder, Rotational	1
2735	Molding Press, Compression (small)	1	2725	Molding Press, Compression (large)	1
			2730	Molding Press, Compression (medium)	1
2745	Holding Press, Injection (medium)	1	2740	Molding Press, Injection (large)	1
2750	Molding Press, Injection (small)	1	2745	Holding Press, Injection (medium)	1
			2755	Molding Press, Transfer (large)	1
2915	Oven	1	2760	Molding Press, Transfer (medium)	1
			2915	Oven	1
4450	Spray Gun (all- materials)	1	3230	Pre-Expander, Polystyrene	1
			3975	Scrape Granulator	1
4870	Thermoforming Press, Vacuum (large)	1	4450	Spray Gun (all- materials)	1
			4465	Spray Unit, Reinforced plastics	1
4880	Thermoforming Press, Vacuum (small)	1	4870	Thermoforming Press, Vacuum (large)	1
			4875	Thermoforming Press, Vacuum (medium)	1
			4880	Thermoforming Press, Vacuum (small)	1
II. Auxiliary Plastics Equipment			II. Auxiliary Plastics Equipment		
Code	Item	Number	Code	Item	Number
0510	Buffer, Pedestal	2	0510	Buffer, Pedestal	2
3945	Scale, Laboratory	1	3945	Scale, Laboratory	1
4655	Strip heater	1	4655	Strip heater	1

<b>4900</b>	Timer, Interval	1	<b>4830</b>	Tester, Guided bend	1
<b>5230</b>	Welding Unit, Plastics	1	<b>4835</b>	Tester, Hardness	1
			<b>4860</b>	Testing Machine, Tensile	1
			<b>4900</b>	Timer, Interval	1
			<b>5230</b>	Welding Unit, Plastics	1

### III. Plaster Casting Equipment

Code	Item	Number
<b>1060</b>	Container, Plaster	1
<b>2700</b>	Mixing Bowls (set)	3
<b>3970</b>	Scoop, Plaster	1
<b>4005</b>	Screening Wheel	1

### III. Plaster Casting Equipment

Code	Item	Number
<b>1060</b>	Container, Plaster	1
<b>2700</b>	Mixing Bowls (set)	3
<b>3970</b>	Scoop, Plaster	1
<b>4005</b>	Screening Wheel	1

### IV. Finishing Equipment

Code	Item	Number
<b>4445</b>	Spray Booth, Dry	1
<b>4455</b>	Spray Gun Outfit	1

### IV. Finishing Equipment

Code	Item	Number
<b>4445</b>	Spray Booth, Dry	1
<b>4455</b>	Spray Gun Outfit	1

### V. Woodworking Equipment

Code	Item	Number
<b>1320</b>	Dresser, Abrasive wheel	1
<b>1330</b>	Drill, Electric, Portable (1/4")	1
<b>1340</b>	Drill, Electric, Portable (1/2")	1
<b>1965</b>	Grinder, Edge tool (bench)	1
<b>2260</b>	Jointer (6")	1
<b>2430</b>	Lathe, Spinning (12")	1
<b>2435</b>	Lathe, Wood turning	1
<b>3250</b>	Press, Drill (15")	1
<b>3675</b>	Router, Portable, Electric	1
<b>3780</b>	Sander, Belt, Portable, Electric	1
<b>3790</b>	Sander, Disc	1
<b>3795</b>	Sander, Finishing, Portable, Electric	1
<b>3810</b>	Sander, Spindle	1
<b>3830</b>	Saw, Band, Wood-cutting	1
<b>3835</b>	Saw, Circular, Power	1
<b>3885</b>	Saw, Jig (scroll)	1
<b>3900</b>	Saw, Sabre (bayonet)	1

### V. Woodworking Equipment

Code	Item	Number
<b>1320</b>	Dresser, Abrasive wheel	1
<b>1330</b>	Drill, Electric, Portable (1/4")	1
<b>1340</b>	Drill, Electric, Portable (1/2")	1
<b>1965</b>	Grinder, Edge tool (bench)	1
<b>2260</b>	Jointer (6")	1
<b>2430</b>	Lathe, Spinning (12")	1
<b>2435</b>	Lathe, Wood turning	1
<b>3250</b>	Press, Drill (15")	1
<b>3675</b>	Router, Portable, Electric	1
<b>3780</b>	Sander, Belt, Portable, Electric	1
<b>3790</b>	Sander, Disc	1
<b>3795</b>	Sander, Finishing, Portable, Electric	1
<b>3810</b>	Sander, Spindle	1
<b>3830</b>	Saw, Band, Wood-cutting	1
<b>3835</b>	Saw, Circular, Power	1
<b>3885</b>	Saw, Jig (scroll)	1
<b>3900</b>	Saw, Sabre (bayonet)	1

**VI. Metalworking Equipment**

Code	Item	Number
0260	Bender, Universal	1
0450	Brake, Box and pan	1
1650	Forming Roll, Slip	1
1955	Grinder, Belt	1
4150	Shear, Squaring foot	1
5195	Welder, Spot	1

**VI. Metalworking Equipment**

Code	Item	Number
0260	Bender, Universal	1
0450	Brake, Box and pan	1
1615	Flask, Foundry (small)	1
1650	Forming Roll, Slip	1
1680	Furnace, Crucible	1
1955	Grinder, Belt	1
2415	Lathe, Metalworking (10")	1
2940	Pantograph, Metalworking	1
3860	Saw, Hack, Power	1
4150	Shear, Squaring foot	1
4155	Shearing and Forming Machine, Universal	1
4865	Testing Machine, Universal	1
5185	Welder, Arc	1
5195	Welder, Spot	1
5220	Welding Outfit, Oxyacetylene	1

**VII. Hand Tools**

Code	Item	Number
0085	Awl, Brad	2
0285	Bit, Auger (set)	1
0430	Brace, Ratchet	1
0645	Caliper, Inside (6")	1
0655	Caliper, Outside (6")	1
0765	Chisel, Butt (set)	2
0775	Chisel, Carving (set)	2
0780	Chisel, Cold (set)	2
0805	Chisel, Socket firmer (set)	1
0835	Chisel, Wood turning (set)	1
0845	Circle Cutter	1
0850	Clamp, Bar (36")	8
0855	Clamp, Bar (48")	4
0880	Clamp, "C" (6")	12
0885	Clamp, "C" (8")	6
0945	Clamp, Spring (#3)	12
1065	Countersink, Bit (for brace) (set)	1
1295	Divider, Spring (6")	1
1350	Drill, Hand (1/4")	1
1355	Drill, Hand (3/8")	1
1360	Drill Stand, Fractional	1

**VII. Hand Tools**

Code	Item	Number
0085	Awl, Brad	2
0285	Bit, Auger (set)	1
0430	Brace, Ratchet	1
0645	Caliper, inside (6")	1
0655	Caliper, Outside (6")	1
0765	Chisel, Butt (set)	2
0775	Chisel, Carving (set)	2
0780	Chisel, Cold (set)	2
0805	Chisel, Socket firmer (set)	1
0835	Chisel, Wood turning (set)	1
0845	Circle Cutter	1
0850	Clamp, Bar (36")	8
0855	Clamp, Bar (48")	4
0880	Clamp, "C" (6")	12
0885	Clamp, "C" (8")	6
0945	Clamp, Spring (#3)	12
1065	Countersink, Bit (for brace) (set)	1
1295	Divider, Spring (6")	1
1350	Drill, Hand (1/4")	1
1355	Drill, Hand (3/8")	1
1360	Drill Stand, Fractional	1

<b>1370</b>	Drill, Twist (number set)	1	<b>1370</b>	Drill, Twist (number set)	1
<b>1375</b>	Drill, Twist, Straight shank (fractional set)	1	<b>1375</b>	Drill, Twist, Straight shank (fractional set)	1
<b>1500</b>	Extractor, Screw (set)	1	<b>1500</b>	Extractor, Screw (set)	1
<b>1540</b>	Files (see specifications for set)		<b>1540</b>	Files (see specifications for set)	
<b>1550</b>	File Card and Brush	6	<b>1550</b>	File Card and Brush	6
<b>1570</b>	File, Needle (set)	1	<b>1570</b>	File, Needle (set)	1
<b>1710</b>	Gauge, Auger bit	1	<b>1710</b>	Gauge, Auger bit	1
<b>1775</b>	Gauge, Marking	1	<b>1775</b>	Gauge, Marking	1
<b>1855</b>	Gauge, Wire and sheet metal (American)	1	<b>1855</b>	Gauge, Wire and sheet metal (American)	1
<b>1860</b>	Gauge, Wire and sheet metal (U.S.S.)	1	<b>1860</b>	Gauge, Wire and sheet metal (U.S.S.)	1
<b>1900</b>	Goggles (spectacles), Clear observation	20	<b>1900</b>	Goggles (spectacles), Clear observation	20
<b>1915</b>	Graduate Cylinder (100cc)	2	<b>1915</b>	Graduate Cylinder (100cc)	2
<b>1920</b>	Graduate Cylinder (500cc)	2	<b>1920</b>	Graduate Cylinder (500cc)	2
<b>2030</b>	Hammer, Ball peen (12 oz.)	1	<b>2030</b>	Hammer, Ball peen (12 oz.)	1
<b>2130</b>	Hammer, Soft face	2	<b>2130</b>	Hammer, Soft face	2
<b>2085</b>	Hammer, Claw (16 oz.)	2	<b>2085</b>	Hammer, Claw (16 oz.)	2
			<b>2140</b>	Helmet, Welding (arc) (hand type)	2
			<b>2145</b>	Helmet, Welding (head type)	1
<b>2540</b>	Mallet, Rawhide	2	<b>2540</b>	Mallet, Rawhide	2
<b>2625</b>	Micrometer, Outside (1")	1	<b>2625</b>	Micrometer, Outside (1")	1
<b>2630</b>	Micrometer, Outside (2")	1	<b>2630</b>	Micrometer, Outside (2")	1
<b>2800</b>	Nail Set (1/16" tip)	6	<b>2800</b>	Nail Set (1/16" tip)	6
<b>2865</b>	Oiler, Bench	6	<b>2865</b>	Oiler, Bench	6
<b>2890</b>	Oilstone, Combination, India	2	<b>2890</b>	Oilstone, Combination, India	2
<b>2895</b>	Oilstone, Combination, Silicon carbide	2	<b>2895</b>	Oilstone, Combination, Silicon carbide	2
			<b>2995</b>	Pipet Control, Microsyringe	1
<b>3010</b>	Plane, Jack	2	<b>3010</b>	Plane, Jack	2
<b>3085</b>	Pliers, Combination (6")	1	<b>3085</b>	Pliers, Combination (6")	1
<b>3090</b>	Pliers, Combination (8")	1	<b>3090</b>	Pliers, Combination (8")	1
<b>3100</b>	Pliers, Diagonal cutting	1	<b>3100</b>	Pliers, Diagonal cutting	1
<b>3110</b>	Pliers, End cutting	1	<b>3110</b>	Pliers, End cutting	1
<b>3155</b>	Pliers, Straight nose	1	<b>3155</b>	Pliers, Straight nose	1

<b>3160</b>	<b>Pliers, Tongue</b>	<b>1</b>	<b>3160</b>	<b>Pliers, Tongue</b>	<b>1</b>
<b>3170</b>	<b>Pliers, Vise-grip wrench</b>	<b>1</b>	<b>3170</b>	<b>Pliers, Vise-grip wrench</b>	<b>1</b>
<b>3455</b>	<b>Punch, Center (set)</b>	<b>3</b>	<b>3455</b>	<b>Punch, Center (set)</b>	<b>3</b>
<b>3480</b>	<b>Punch, Hand (set)</b>	<b>1</b>	<b>3480</b>	<b>Punch, Hand (set)</b>	<b>1</b>
<b>3500</b>	<b>Punch, Pin (set)</b>	<b>1</b>	<b>3500</b>	<b>Punch, Pin (set)</b>	<b>1</b>
<b>3750</b>	<b>Rule, Steel (12")</b>	<b>6</b>	<b>3750</b>	<b>Rule, Steel (12")</b>	<b>6</b>
<b>3755</b>	<b>Rule, Steel (24")</b>	<b>6</b>	<b>3755</b>	<b>Rule, Steel (24")</b>	<b>6</b>
<b>3815</b>	<b>Sanding Drums (set)</b>	<b>1</b>	<b>3815</b>	<b>Sanding Drums (set)</b>	<b>1</b>
<b>3820</b>	<b>Saw, Back</b>	<b>2</b>	<b>3820</b>	<b>Saw, Back</b>	<b>2</b>
<b>3830</b>	<b>Saw, Coping</b>	<b>2</b>	<b>3830</b>	<b>Saw, Coping</b>	<b>2</b>
<b>3850</b>	<b>Saw, Hack (hand)</b>	<b>2</b>	<b>3850</b>	<b>Saw, Hack (hand)</b>	<b>2</b>
<b>3865</b>	<b>Saw, Hand, Crosscut</b>	<b>2</b>	<b>3865</b>	<b>Saw, Hand, Crosscut</b>	<b>2</b>
<b>3965</b>	<b>Scissors</b>	<b>1</b>	<b>3965</b>	<b>Scissors</b>	<b>1</b>
<b>3980</b>	<b>Scraper, Cabinet</b>	<b>2</b>	<b>3980</b>	<b>Scraper, Cabinet</b>	<b>2</b>
<b>3995</b>	<b>Scraper, Hand</b>	<b>6</b>	<b>3995</b>	<b>Scraper, Hand</b>	<b>6</b>
<b>4070</b>	<b>Screwdriver, Standard bit (round blade) (set)</b>	<b>6</b>	<b>4070</b>	<b>Screwdriver, Standard bit (round blade) (set)</b>	<b>6</b>
<b>4165</b>	<b>Shield, Face</b>	<b>6</b>	<b>4165</b>	<b>Shield, Face</b>	<b>6</b>
<b>4275</b>	<b>Snips, Tinner's, Straight (#8)</b>	<b>2</b>	<b>4275</b>	<b>Snips, Tinner's, Straight (#8)</b>	<b>2</b>
<b>4480</b>	<b>Square, Combination</b>	<b>6</b>	<b>4480</b>	<b>Square, Combination</b>	<b>6</b>
<b>4485</b>	<b>Square, Combination set (with protractor and center head)</b>	<b>1</b>	<b>4485</b>	<b>Square, Combination set (with protractor and center head)</b>	<b>1</b>
<b>4490</b>	<b>Square, Steel framing</b>	<b>2</b>	<b>4490</b>	<b>Square, Steel framing</b>	<b>2</b>
<b>4760</b>	<b>Tap and Die, NC (U.S. standard) (set)</b>	<b>1</b>	<b>4760</b>	<b>Tap and Die, NC (U.S. standard) (set)</b>	<b>1</b>
<b>4765</b>	<b>Tap and Die, NF (S.A.E.) (set)</b>	<b>1</b>	<b>4765</b>	<b>Tap and Die, NF (S.A.E.) (set)</b>	<b>1</b>
<b>4775</b>	<b>T Bevel, Sliding</b>	<b>1</b>	<b>4775</b>	<b>T Bevel, Sliding</b>	<b>1</b>
<b>5120</b>	<b>V Block and Clamps (set)</b>	<b>1</b>	<b>5120</b>	<b>V Block and Clamps (set)</b>	<b>1</b>
<b>5255</b>	<b>Wrench, Adjustable end (6")</b>	<b>1</b>	<b>5255</b>	<b>Wrench, Adjustable end (6")</b>	<b>1</b>
<b>5260</b>	<b>Wrench, Adjustable end (8")</b>	<b>1</b>	<b>5260</b>	<b>Wrench, Adjustable end (8")</b>	<b>1</b>
<b>5265</b>	<b>Wrench, Adjustable end (10")</b>	<b>1</b>	<b>5265</b>	<b>Wrench, Adjustable end (10")</b>	<b>1</b>
<b>5270</b>	<b>Wrench, Adjustable end (12")</b>	<b>1</b>	<b>5270</b>	<b>Wrench, Adjustable end (12")</b>	<b>1</b>
<b>5280</b>	<b>Wrench, Allen key (hex) (set)</b>	<b>1</b>	<b>5280</b>	<b>Wrench, Allen key (hex) (set)</b>	<b>1</b>
<b>5290</b>	<b>Wrench, Combination box and open (set)</b>	<b>1</b>	<b>5290</b>	<b>Wrench, Combination box and open (set)</b>	<b>1</b>
<b>5360</b>	<b>Wrench, Socket (3/8" drive) (set)</b>	<b>1</b>	<b>5360</b>	<b>Wrench, Socket (3/8" drive) (set)</b>	<b>1</b>

VIII. General Furnishings			VIII. General Furnishings		
Code	Item	Number	Code	Item	Number
0195	Bench, Machine	2	0150	Bench, Arc welding	1
0210	Bench, Metalworking (4 place)	2	0180	Bench, Gas welding	1
0212	Bench, Molding	1	0195	Bench, Machine	2
0215	Bench, Plaster	1	0210	Bench, Metalworking (4 place)	2
0255	Bench, Woodworking (4 place)	4	0212	Bench, Molding	1
0405	Bookcase	1	0215	Bench, Plaster	1
0465	Broom, Push	3	0255	Bench, Woodworking (4 place)	6
0470	Brush, Bench	12	0405	Bookcase	1
0540	Cabinet, Filing	1	0465	Broom, Push	3
0542	Cabinet, Finishing supply	2	0470	Brush, Bench	12
0590	Cabinet, Parts storage	1	0540	Cabinet, Filing	1
0610	Cabinet, Sheet plastics storage	1	0542	Cabinet, Finishing supply	2
0620	Cabinet, Storage	1	0590	Cabinet, Parts storage	1
0625	Cabinet, Tool storage	1	0610	Cabinet, Sheet plastics storage	1
0710	Can, Oily waste	2	0620	Cabinet, Storage	1
0720	Can, Safety (1 qt.)	6	0625	Cabinet, Tool storage	1
0725	Can, Safety (1 gal.)	6	0710	Can, Oily waste	2
0755	Chair, Teacher's	1	0720	Can, Safety (1 qt.)	6
1235	Desk, Teacher's	1	0725	Can, Safety (1 gal.)	6
1592	Fire Blanket	1	0755	Chair, Teacher's	1
1593	Fire Extinguisher	3	1235	Desk, Teacher's	1
1600	First Aid Kit	1	1592	Fire Blanket	1
			1593	Fire Extinguisher	3
			1600	First Aid Kit	1
2932	Pan, Dust	1	2660	Microscope	1
2980	Pencil Sharpener, Standard	1	2932	Pan, Dust	1
3340	Projector, Filmstrip (35mm) and slide (2" x 2")	1	2980	Pencil Sharpener, Standard	1
3345	Projector, Motion picture, Sound	1	3340	Projector, Filmstrip (35mm) and slide (2" x 2")	1
3350	Projector, Overhead	1	3345	Projector, Motion picture, Sound	1
3545	Rack, Lumber	1	3350	Projector, Overhead	1
3555	Rack, Metal storage	1	3545	Rack, Lumber	1
4010	Screen, Projection	1	3555	Rack, Metal storage	1
4690	Table, Overhead projector	1	4010	Screen, Projection	1
			4690	Table, Overhead projector	1
			5065	Truck, Welding cylinder	

## WOODWORKING

Introductory			Advanced		
I. Fabricating Machines			I. Fabricating Machines		
Code	Item	Number	Code	Item	Number
1330	Drill, Electric, Portable (1/4")	1	1330	Drill, Electric, Portable (1/4")	1
			1335	Drill, Electric, Portable (3/8")	1
1965	Grinder, Edge tool (bench)	1	1965	Grinder, Edge tool (bench)	1
1980	Grinder, Oil tool	1	1980	Grinder, Oil tool	1
2260	Jointer (6")	1	2260	Jointer (6")	1
			2265	Jointer (8")	1
2435	Lathe, Wood turning	3	2435	Lathe, Wood turning	3
			2780	Mortiser, Hollow chisel	1
			3025	Plane, Portable, Electric	1
3250	Press, Drill (15")	1	3250	Press, Drill (15")	1
3675	Router, Portable, Electric	1	3675	Router, Portable, Electric	1
3780	Sander, Belt, Portable, Electric	1	3780	Sander, Belt, Portable, Electric	1
3785	Sander, Combination belt and disc	1	3785	Sander, Combination belt and disc	1
3795	Sander, Finishing, Portable, Electric	1	3795	Sander, Finishing, Portable, Electric	1
			3805	Sander, Handblock stroke	1
3810	Sander, Spindle	1	3810	Sander, Spindle	1
3830	Saw, Band, Woodcutting	1	3830	Saw, Band, Woodcutting	1
3835	Saw, Circular, Power	1	3835	Saw, Circular, Power	1
3885	Saw, Jig (scroll)	1	3885	Saw, Jig (scroll)	1
			3895	Saw, Radial-arm, Power	1
			3900	Saw, Sabre (bayonet)	1
			4135	Shaper, Spindle (floor model)	1
			4660	Surfacer (single surface planer)	1
II. Hand Tools and Equipment			II. Hand Tools and Equipment		
Code	Item	Number	Code	Item	Number
0085	Awl, Brad	2	0085	Awl, Brad	2
0090	Awl, Scratch	4	0090	Awl, Scratch	4
0125	Bar, Wrecking	1	0125	Bar, Wrecking	1
0145	Bellows, Molder's	4	0145	Bellows, Molder's	4

<b>0285</b>	Bit, Auger (set)	2	<b>0285</b>	Bit, Auger (set)	2
<b>0290</b>	Bit, Combination drill and countersink (set)	1	<b>0290</b>	Bit, Combination drill and countersink (set)	1
<b>0295</b>	Bit, Combination drill and counterbore (set)	1	<b>0295</b>	Bit, Combination drill and counterbore (set)	1
<b>0305</b>	Bit, Expansive	1	<b>0305</b>	Bit, Expansive	1
<b>0310</b>	Bit, Extension	1	<b>0310</b>	Bit, Extension	1
<b>0315</b>	Bit, Forstner (brace set)	1	<b>0315</b>	Bit, Forstner (brace set)	1
<b>0320</b>	Bit, Forstner (machine set)	1	<b>0320</b>	Bit, Forstner (machine set)	1
<b>0325</b>	Bit, Multi-spur (set)	1	<b>0325</b>	Bit, Multi-spur (set)	1
<b>0330</b>	Bit, Plug cutter (set)	1	<b>0330</b>	Bit, Plug cutter (set)	1
<b>0335</b>	Bit, Twist, Car	1	<b>0345</b>	Bit, Twist, Car	1
<b>0365</b>	Block, Sanding	24	<b>0365</b>	Block, Sanding	24
<b>0430</b>	Brace, Ratchet	5	<b>0430</b>	Brace, Ratchet	5
<b>0435</b>	Bracket, Saw horse (pair)	2	<b>0435</b>	Bracket, Saw horse (pair)	2
<b>0465</b>	Broom, Push	6	<b>0465</b>	Broom, Push	6
<b>0470</b>	Brush, Bench	24	<b>0470</b>	Brush, Bench	24
<b>0520</b>	Burnisher	1	<b>0520</b>	Burnisher	1
<b>0710</b>	Can, Oily waste	1	<b>0710</b>	Can, Oily waste	1
<b>0720</b>	Can, Safety (1 qt.)	4	<b>0720</b>	Can, Safety (1 qt.)	4
<b>0725</b>	Can, Safety (1 gal.)	3	<b>0725</b>	Can, Safety (1 gal.)	3
<b>0765</b>	Chisel, Butt (set)	12	<b>0765</b>	Chisel, Butt (set)	12
<b>0775</b>	Chisel, Carving (set)	4	<b>0775</b>	Chisel, Carving (set)	4
<b>0790</b>	Chisel, Gouge, Inside (set)	3	<b>0790</b>	Chisel, Gouge, Inside (set)	3
<b>0795</b>	Chisel, Gouge, Outside (set)	3	<b>0795</b>	Chisel, Gouge, Outside (set)	3
<b>0805</b>	Chisel, Socket firmer (set)	4	<b>0805</b>	Chisel, Socket firmer (set)	4
<b>0835</b>	Chisel, Wood turning (set)	3	<b>0835</b>	Chisel, Wood turning (set)	3
<b>0845</b>	Circle Cutter	1	<b>0845</b>	Circle Cutter	1
<b>0850</b>	Clamp, Bar (36")	6	<b>0850</b>	Clamp, Bar (36")	6
<b>0855</b>	Clamp, Bar (48")	6	<b>0855</b>	Clamp, Bar (48")	6
<b>0870</b>	Clamp, "C" (3")	4	<b>0870</b>	Clamp, "C" (3")	4
<b>0875</b>	Clamp, "C" (4")	4	<b>0875</b>	Clamp, "C" (4")	4
<b>0880</b>	Clamp, "C" (6")	4	<b>0880</b>	Clamp, "C" (6")	4
<b>0885</b>	Clamp, "C" (8")	4	<b>0885</b>	Clamp, "C" (8")	4
<b>0900</b>	Clamp, Corner	4	<b>0900</b>	Clamp, Corner	4
<b>0905</b>	Clamp, Fixture (set)	6	<b>0905</b>	Clamp, Fixture (set)	6
<b>0910</b>	Clamp, Handscrew (#3/o)	6	<b>0910</b>	Clamp, Handscrew (#3/o)	6
<b>0915</b>	Clamp, Handscrew (#0)	6	<b>0915</b>	Clamp, Handscrew (#0)	6
<b>0920</b>	Clamp, Handscrew (#1)	12	<b>0920</b>	Clamp, Handscrew (#1)	12
<b>0925</b>	Clamp, Handscrew (#2)	12	<b>0925</b>	Clamp, Handscrew (#2)	12

<b>0930</b>	Clamp, Handscrew (#3)	6	<b>0930</b>	Clamp, Handscrew (#3)	6
<b>0935</b>	Clamp, Mitre frame	1	<b>0935</b>	Clamp, Mitre frame	1
<b>0995</b>	Compass, Pencil	3	<b>0995</b>	Compass, Pencil	3
<b>1065</b>	Countersink Bit (for brace) (set)	2	<b>1065</b>	Countersink Bit (for brace) (set)	2
<b>1070</b>	Countersink, High Speed	2	<b>1070</b>	Countersink, High Speed	2
<b>1150</b>	Cutter, Glass	1	<b>1150</b>	Cutter, Glass	1
<b>1250</b>	Die, Letter (set)	1	<b>1250</b>	Die, Letter (set)	1
<b>1255</b>	Die, Number (set)	1	<b>1255</b>	Die, Number (set)	1
<b>1305</b>	Divider, Wing	2	<b>1305</b>	Divider, Wing	2
<b>1317</b>	Dowel Centers (pairs) (set)	1	<b>1317</b>	Dowel Centers (pairs) (set)	1
<b>1320</b>	Dresser, Abrasive wheel	1	<b>1320</b>	Dresser, Abrasive wheel	1
<b>1350</b>	Drill, Hand (1/4")	2	<b>1350</b>	Drill, Hand (1/4")	4
<b>1355</b>	Drill, Hand (3/8")	1	<b>1355</b>	Drill, Hand (3/8")	1
<b>1360</b>	Drill Stand, Fractional	1	<b>1360</b>	Drill Stand, Fractional	1
<b>1375</b>	Drill, Twist, Straight shank (fractional set)	1	<b>1375</b>	Drill, Twist, Straight shank (fractional set)	1
<b>1540</b>	Files (see specifications for set detail)	1	<b>1540</b>	Files (see specifications for set detail)	1
<b>1545</b>	File, Auger bit	3	<b>1545</b>	File, Auger bit	3
<b>1550</b>	File Card and Brush	6	<b>1550</b>	File Card and Brush	6
<b>1665</b>	Funnel	2	<b>1665</b>	Funnel	2
<b>1710</b>	Gauge, Auger bit	1	<b>1710</b>	Gauge, Auger bit	1
<b>1745</b>	Gauge, Drill, Fractions	1	<b>1745</b>	Gauge, Drill, Fractions	1
<b>1775</b>	Gauge, Marking	6	<b>1775</b>	Gauge, Marking	6
<b>1780</b>	Gauge, Marking (double bar)	2	<b>1780</b>	Gauge, Marking (double bar)	2
<b>1800</b>	Gauge, Screw pitch	1	<b>1800</b>	Gauge, Screw pitch	1
<b>1855</b>	Gauge, Wire and sheet metal (American)	1	<b>1855</b>	Gauge, Wire and sheet metal (American)	1
<b>1860</b>	Gauge, Wire and sheet metal (U.S.S.)	1	<b>1860</b>	Gauge, Wire and sheet metal (U.S.S.)	1
<b>1885</b>	Gloves, Leather (pair)	4	<b>1885</b>	Gloves, Leather (pair)	4
<b>1900</b>	Goggles, Clear observation	24	<b>1900</b>	Goggles, Clear observation	24
<b>1930</b>	Grease Gun	1	<b>1930</b>	Grease Gun	1
<b>2070</b>	Hammer, Claw (7 oz.)	3	<b>2070</b>	Hammer, Claw (7 oz.)	3
<b>2080</b>	Hammer, Claw (13 oz.)	6	<b>2080</b>	Hammer, Claw (13 oz.)	6
<b>2085</b>	Hammer, Claw (16 oz.)	6	<b>2085</b>	Hammer, Claw (16 oz.)	6
<b>2107</b>	Hammer, Magnetic	2	<b>2107</b>	Hammer, Magnetic	2
<b>2175</b>	Hose, Air	1	<b>2175</b>	Hose, Air	1
<b>2245</b>	Jig, Dowelling	2	<b>2245</b>	Jig, Dowelling	2
<b>2360</b>	Knife, Putty	3	<b>2360</b>	Knife, Putty	3
<b>2370</b>	Knife, Sloyd	6	<b>2370</b>	Knife, Sloyd	6
<b>2465</b>	Level	1	<b>2465</b>	Level	1
<b>2535</b>	Mallet, Hardwood	4	<b>2535</b>	Mallet, Hardwood	4

<b>2540</b>	<b>Mallet, Rawhide</b>	<b>4</b>	<b>2540</b>	<b>Mallet, Rawhide</b>	<b>4</b>
<b>2690</b>	<b>Mitre Box</b>	<b>1</b>	<b>2690</b>	<b>Mitre Box</b>	<b>1</b>
<b>2800</b>	<b>Nail Set (1/16" tip)</b>	<b>4</b>	<b>2800</b>	<b>Nail Set (1/16" tip)</b>	<b>4</b>
<b>2805</b>	<b>Nail Set (3/32" tip)</b>	<b>4</b>	<b>2805</b>	<b>Nail Set (3/32" tip)</b>	<b>4</b>
<b>2835</b>	<b>Nipper, End cutting</b>	<b>1</b>	<b>2835</b>	<b>Nipper, End cutting</b>	<b>1</b>
<b>2845</b>	<b>Nozzle, Blow gun (air line)</b>	<b>1</b>	<b>2845</b>	<b>Nozzle, Blow gun (air line)</b>	<b>1</b>
<b>2865</b>	<b>Oiler, Bench</b>	<b>6</b>	<b>2865</b>	<b>Oiler, Bench</b>	<b>6</b>
<b>2870</b>	<b>Oiler, Pump</b>	<b>1</b>	<b>2870</b>	<b>Oiler, Pump</b>	<b>1</b>
<b>2885</b>	<b>Oilstone, Carving tool slips (set)</b>	<b>1</b>	<b>2885</b>	<b>Oilstone, Carving tool slips (set)</b>	<b>1</b>
<b>2890</b>	<b>Oilstone, Combination, India</b>	<b>1</b>	<b>2890</b>	<b>Oilstone, Combination, India</b>	<b>1</b>
<b>2900</b>	<b>Oilstone, Gouge slip</b>	<b>1</b>	<b>2900</b>	<b>Oilstone, Gouge slip</b>	<b>1</b>
<b>2905</b>	<b>Oilstone, Slip</b>	<b>1</b>	<b>2905</b>	<b>Oilstone, Slip</b>	<b>1</b>
<b>2932</b>	<b>Pan, Dust</b>	<b>1</b>	<b>2932</b>	<b>Pan, Dust</b>	<b>1</b>
<b>3000</b>	<b>Plane, Block</b>	<b>3</b>	<b>3000</b>	<b>Plane, Block</b>	<b>3</b>
<b>3005</b>	<b>Plane Iron, Double</b>	<b>24</b>	<b>3005</b>	<b>Plane Iron, Double</b>	<b>24</b>
<b>3010</b>	<b>Plane, Jack</b>	<b>18</b>	<b>3010</b>	<b>Plane, Jack</b>	<b>18</b>
<b>3015</b>	<b>Plane, Jointer</b>	<b>2</b>	<b>3015</b>	<b>Plane, Jointer</b>	<b>2</b>
<b>3030</b>	<b>Plane, Rabbet</b>	<b>4</b>	<b>3030</b>	<b>Plane, Rabbet</b>	<b>4</b>
<b>3035</b>	<b>Plane, Router</b>	<b>4</b>	<b>3035</b>	<b>Plane, Router</b>	<b>4</b>
<b>3040</b>	<b>Plane, Smoothing</b>	<b>6</b>	<b>3040</b>	<b>Plane, Smoothing</b>	<b>6</b>
<b>3085</b>	<b>Pliers, Combination (6")</b>	<b>2</b>	<b>3085</b>	<b>Pliers, Combination (6")</b>	<b>2</b>
<b>3170</b>	<b>Pliers, Vise-grip wrench</b>	<b>2</b>	<b>3170</b>	<b>Pliers, Vise-grip wrench</b>	<b>2</b>
<b>3360</b>	<b>Protractor, Machinist's bevel</b>	<b>2</b>	<b>3360</b>	<b>Protractor, Machinist's bevel</b>	<b>2</b>
<b>3455</b>	<b>Punch, Center (set)</b>	<b>3</b>	<b>3455</b>	<b>Punch, Center (set)</b>	<b>3</b>
<b>3695</b>	<b>Rule, Flexible, Steel tape (6')</b>	<b>4</b>			
			<b>3700</b>	<b>Rule, Flexible, Steel tape (8')</b>	<b>4</b>
<b>3705</b>	<b>Rule, Flexible, Steel tape (10')</b>	<b>4</b>	<b>3705</b>	<b>Rule, Flexible, Steel tape (10')</b>	<b>4</b>
<b>3715</b>	<b>Rule, Flexible, Steel tape (25')</b>	<b>1</b>	<b>3715</b>	<b>Rule, Flexible, Steel tape (25')</b>	<b>1</b>
			<b>3720</b>	<b>Rule, Flexible, Steel tape (50')</b>	<b>1</b>
<b>3725</b>	<b>Rule, Flexible, Steel tape (100')</b>	<b>1</b>	<b>3725</b>	<b>Rule, Flexible, Steel tape (100')</b>	<b>1</b>
<b>3750</b>	<b>Rule, Steel (12")</b>	<b>18</b>	<b>3750</b>	<b>Rule, Steel (12")</b>	<b>18</b>
<b>3755</b>	<b>Rule, Steel (24")</b>	<b>6</b>	<b>3755</b>	<b>Rule, Steel (24")</b>	<b>6</b>
<b>3760</b>	<b>Rule, Steel (36")</b>	<b>3</b>	<b>3760</b>	<b>Rule, Steel (36")</b>	<b>3</b>
<b>3815</b>	<b>Sanding Drums (set)</b>	<b>1</b>			
<b>3820</b>	<b>Saw, Back</b>	<b>6</b>	<b>3820</b>	<b>Saw, Back</b>	<b>6</b>
<b>3845</b>	<b>Saw, Coping</b>	<b>12</b>	<b>3845</b>	<b>Saw, Coping</b>	<b>6</b>
<b>3850</b>	<b>Saw, Hack (hand)</b>	<b>1</b>	<b>3850</b>	<b>Saw, Hack (hand)</b>	<b>1</b>
<b>3865</b>	<b>Saw, Hand, Crosscut</b>	<b>4</b>	<b>3865</b>	<b>Saw, Hand, Crosscut</b>	<b>4</b>
<b>3870</b>	<b>Saw, Hand, Rip</b>	<b>4</b>	<b>3870</b>	<b>Saw, Hand, Rip</b>	<b>4</b>
<b>3887</b>	<b>Saw, Keyhole</b>	<b>1</b>	<b>3887</b>	<b>Saw, Keyhole</b>	<b>1</b>

<b>3925</b>	Scale, Architect's	1	<b>3905</b>	Saw, Veneer	4
<b>3965</b>	Scissors	4	<b>3925</b>	Scale, Architect's	1
<b>3980</b>	Scraper, Cabinet	4	<b>3965</b>	Scissors	4
<b>3995</b>	Scraper, Hand	6	<b>3980</b>	Scraper, Cabinet	4
<b>4040</b>	Screwdriver, Offset ratchet	1	<b>3995</b>	Scraper, Hand	6
<b>4045</b>	Screwdriver, Offset, Straight slot (set)	2	<b>4040</b>	Screwdriver, Offset ratchet	1
<b>4050</b>	Screwdriver, Phillips (set)	2	<b>4045</b>	Screwdriver, Offset, Straight slot (set)	2
<b>4060</b>	Screwdriver, Spiral ratchet	2	<b>4050</b>	Screwdriver, Phillips (set)	2
<b>4070</b>	Screwdriver, Standard bit (round blade) (set)	2	<b>4060</b>	Screwdriver, Spiral ratchet	2
<b>4165</b>	Shield, Face	12	<b>4070</b>	Screwdriver, Standard bit (round blade) (set)	2
<b>4295</b>	Soldering Copper, Electric	1	<b>4165</b>	Shield, Face	12
<b>4400</b>	Spokeshave, Convex bottom	4	<b>4295</b>	Soldering Copper, Electric	1
<b>4405</b>	Spokeshave, Straight	4	<b>4400</b>	Spokeshave, Convex bottom	4
<b>4455</b>	Spray Gun Outfit	1	<b>4405</b>	Spokeshave, Straight	4
<b>4480</b>	Square, Combination	2	<b>4455</b>	Spray Gun Outfit	1
<b>4490</b>	Square, Steel framing	6	<b>4480</b>	Square, Combination	2
<b>4495</b>	Square, Try (6")	24	<b>4490</b>	Square, Steel framing	6
<b>4505</b>	Square, Try (12")	4	<b>4495</b>	Square, Try (6")	24
<b>4775</b>	T Bevel	3	<b>4505</b>	Square, Try (12")	4
<b>4965</b>	Trammel Points	2	<b>4775</b>	T Bevel	2
<b>4990</b>	Triangle, 30°-60° (8")	1	<b>4965</b>	Trammel Points	2
<b>5005</b>	Triangle, 45° (8")	1	<b>4990</b>	Triangle, 30°-60° (8")	1
<b>5070</b>	T Square	1	<b>5005</b>	Triangle, 45° (8")	1
<b>5135</b>	Vise, Bench, Drill	1	<b>5070</b>	T Square	1
<b>5145</b>	Vise, Mitre	1	<b>5135</b>	Vise, Bench, Drill	1
<b>5260</b>	Wrench, Adjustable end (8")	1	<b>5145</b>	Vise, Mitre	1
<b>5280</b>	Wrench, Allen key (hex) (set)	1	<b>5280</b>	Wrench, Allen key (hex) (set)	1
<b>5335</b>	Wrench, Open end (set)	1	<b>5335</b>	Wrench, Open end (set)	1
<b>5360</b>	Wrench, Socket (3/8" drive) (set)	1	<b>5360</b>	Wrench, Socket (3/8" drive) (set)	1

III. Experimental and Research  
Equipment

Code	Item	Number
------	------	--------

III. Experimental and Research  
Equipment

Code	Item	Number
------	------	--------

<b>0100</b>	Balance, Beam	1
<b>2190</b>	Hot Plate, Electric	1
<b>2225</b>	Jack, Auto, Hydraulic (standard type) (1½ ton)	3

65

			<b>2590</b>	Meter, Galvanometer	1
			<b>2605</b>	Meter, Moisture content (electric)	1
			<b>2610</b>	Meter, Volt-ohm (multi- range)	1
<b>2660</b>	Microscope	1	<b>2660</b>	Microscope	1
			<b>2915</b>	Oven	1
			<b>3265</b>	Press, Hydraulic, Heated platen	1
			<b>3940</b>	Scale, Household	1
			<b>3945</b>	Scale, Laboratory	1

#### IV. General Furnishings

Code	Item	Number
<b>0160</b>	Bench, Demonstration	1
<b>0250</b>	Bench, Woodworking (2 place)	8
<b>0255</b>	Bench, Woodworking (4 place)	2
<b>0405</b>	Bookcase	2
<b>0540</b>	Cabinet, Filing	2
<b>0542</b>	Cabinet, Finishing (str)	1
<b>0575</b>	Cabinet, Machine accessory	1
<b>0580</b>	Cabinet, Nail and screw storage	1
<b>0620</b>	Cabinet, Storage	1
<b>0625</b>	Cabinet, Tool storage	1
<b>0755</b>	Chair, Teacher's	1
<b>1025</b>	Compressor, Air	1
<b>1235</b>	Desk, Teacher's	1
<b>1405</b>	Dust Collection System	1
<b>1592</b>	Fire Blanket	1
<b>1593</b>	Fire Extinguisher	3
<b>1600</b>	First Aid Kit	1
<b>2980</b>	Pencil Sharpener, Standard	1
<b>3340</b>	Projector, Filmstrip (35mm) and slide (2" x 2")	1
<b>3345</b>	Projector, Motion picture, Sound	1
<b>3350</b>	Projector, Overhead	1
<b>3540</b>	Rack, Glue clamp	1

#### IV. General Furnishings

Code	Item	Number
<b>0160</b>	Bench, Demonstration	1
<b>0170</b>	Bench, Electric demonstration	1
<b>0250</b>	Bench, Woodworking (2 place)	8
<b>0255</b>	Bench, Woodworking (4 place)	2
<b>0405</b>	Bookcase	2
<b>0540</b>	Cabinet, Filing	2
<b>0542</b>	Cabinet, Finishing (str)	1
<b>0575</b>	Cabinet, Machine accessory	1
<b>0580</b>	Cabinet, Nail and screw storage	1
<b>0620</b>	Cabinet, Storage	1
<b>0625</b>	Cabinet, Tool storage	1
<b>0755</b>	Chair, Teacher's	1
<b>1025</b>	Compressor, Air	1
<b>1235</b>	Desk, Teacher's	1
<b>1405</b>	Dust Collection System	1
<b>1592</b>	Fire Blanket	1
<b>1593</b>	Fire Extinguisher	3
<b>1600</b>	First Aid Kit	1
<b>2980</b>	Pencil Sharpener, Standard	1
<b>3340</b>	Projector, Filmstrip (35mm) and slide (2" x 2")	1
<b>3345</b>	Projector, Motion picture, Sound	1
<b>3350</b>	Projector, Overhead	1
<b>3540</b>	Rack, Glue clamp	1

<b>4010</b>	<b>Screen, Projection</b>	<b>1</b>	<b>3568</b>	<b>Rack, Roll, Wrapping paper</b>	<b>1</b>
			<b>4010</b>	<b>Screen, Projection</b>	<b>1</b>
<b>4670</b>	<b>Table, Drafting</b>	<b>1</b>	<b>4445</b>	<b>Spray Booth, Dry</b>	<b>1</b>
<b>4690</b>	<b>Table, Overhead projector</b>	<b>1</b>	<b>4670</b>	<b>Table, Drafting</b>	<b>1</b>
<b>4675</b>	<b>Table, Finishing</b>	<b>1</b>	<b>4690</b>	<b>Table, Overhead projector</b>	<b>1</b>
			<b>4675</b>	<b>Table, Finishing</b>	<b>1</b>
			<b>4715</b>	<b>Table, Spraying</b>	<b>1</b>

## II. EQUIPMENT SPECIFICATIONS

### Introduction:

The items of equipment described below are alphabetically arranged and chronologically numbered. In addition, each item is followed by a listing of the Sections that recommended their inclusion. Where Sections recommended equipment identical in name but not in detail, their unique specification has been separated and so designated.

It was not intended that purchases could be made directly from this Equipment Guide without further resort to catalogs and more detailed specification. The items are specified only in general terms so that they may be clearly identified. Most items bear basic sizes, dimensions, capacities, and safety considerations where they apply. Special care was exercised to avoid the reference to a particular brand name or company—especially when equivalent equipment is available from more than one source.

### MASTER LIST OF EQUIPMENT

- 0005 Adaptor, Socket**  
General Shop  
For socket wrenches;  $\frac{3}{8}$ " to  $\frac{1}{2}$ " drive.
- 0010 Adaptor, Socket**  
General Shop  
For socket wrenches;  $\frac{1}{2}$ " to  $\frac{3}{8}$ " drive.
- 0015 Airbrush**  
Ceramics: beginning, advanced  
Graphic Arts: advanced  
With single control for air and ink; fine, medium, and heavy heads (with  $\frac{1}{4}$  oz. color cup, 3 oz. color bottle); hanger; hose coupling; 10' hose and fittings; reamer; instructions; protective case.
- 0020 Aligner, Connecting rod**  
Auto and Power Mechanics: advanced  
With bend and twist indicator; V block; bending bar.
- 0025 Alignment Tool (set)**  
Electricity-Electronics: beginning, advanced  
Basic set of trim tools for radio/T.V. r.f alignment.
- 0030 Alternator-Generator-Regulator Test Stand  
(Alternator Test Equipment, set)**  
Auto and Power Mechanics: advanced  
For all 6, 12, 24, and 32 volt testing at outputs up to 700 watts; for all passenger cars and light truck equipment; to develop over 2 HP; 220 V, single phase.

- 0035 Analyzer, Capacitor**  
Auto and Power Mechanics: advanced  
Capacitance bridge measures up to 2000 uF in 5 overlapping ranges; insulation resistance of papers, ceramics, and micas directly read on large meter; dual range; leadage current read directly on meter; variable ranges of DC voltage for testing at exact rated voltage; reads power factor of electrolytics; meter protector of solid-state design; color-keyed push buttons for instant range selection.
- 0040 Analyzer, Engine**  
Auto and Power Mechanics: advanced  
Motor tune-up tester; portable unit; includes scope; combustion booster unit; coil breaker unit; tach-dwell unit; condenser-vacuum unit; head frame assembly; portable cabinet; complete motor tester model.
- 0045 Anvil**  
Auto and Power Mechanics: beginning, advanced  
General Shop  
Metalworking: beginning, advanced  
100 lb.; face: tool steel, tempered, ground and polished; horn: covered with tough untempered steel; horn tip all steel; stand.
- 0050 Apron, Foundry**  
General Shop  
Metalworking: beginning, advanced  
Leather, approximately 44"L.
- 0052 Apron, Rubber**  
Graphic Arts: beginning, advanced  
Metalworking: beginning, advanced
- 0055 Apron, Welding**  
General Shop  
Metalworking: beginning, advanced  
Leather; approximately 44"L.
- 0060 Arbor, Milling machine**  
Metalworking: advanced  
1-inch, "B" bearing.
- 0065 Atomizer**  
Ceramics: beginning, advanced  
General shop  
Lightweight, well balanced, self-draining, designed to be used in one hand and for water base gum binders.
- 0070 Autoclave**  
Plastics: beginning, advanced  
Steam pressure regulated to 50 p.s.i., min. capacity 2'gals., safety

locks on doors, steam generator included if high pressure steam not available.

- 0075 Automatic Transmission Tool (set)**  
Auto and Power Mechanics: advanced  
A complete unit to facilitate service, repair, and adjustment of various automatic transmissions.
- 0080 Awl, Bookbinder's**  
Graphic Arts: beginning, advanced  
Detachable sharp steel point 3"L; point tightly clamped into a hardwood, leather topped handle; points are removable by means of a key.
- 0085 Awl, Brad**  
General Shop  
Plastics: beginning, advanced  
Woodworking: beginning, advanced
- 0090 Awl, Scratch**  
Elementary  
General Shop  
Metalworking: beginning, advanced  
Woodworking: beginning, advanced  
6-inch.
- 0095 Awl, Stitching, Automatic**  
General Shop
- 0100 Balance, Beam**  
Woodworking: advanced  
Triple-beam; accurate to one-hundredth of a gram.
- 0105 Ball Mill, Roller type**  
Ceramics: beginning, advanced  
2 gal. size. To be bolted on stand or bench. Requires  $\frac{1}{4}$  to  $\frac{1}{3}$  HP electric motor.
- 0110 Banding Wheel, Potter's Bench**  
Ceramics: beginning, advanced  
Iron type—extra heavy cast iron wheels are machines with precision and perfectly balanced. Turntable marked with concentric circles. Ball bearing movement.
- 0115 Bar Folder**  
General Shop  
Metalworking: beginning, advanced  
30-inch, adjustable, counter-balanced.
- 0120 Bar, Pry**  
Auto and Power Mechanics: beginning, advanced  
Alloy steel: rolling head; 12" x  $\frac{7}{16}$ " diameter.

- 0125 Bar, Wrecking**  
Woodworking: beginning, advanced  
Forged steel: hex stock;  $\frac{3}{4}$ " x 24"L.
- 0130 Battery Eliminator and Charger**  
Auto and Power Mechanics: beginning, advanced  
Up to 75 ampere output for 6 V fast charge; up to 50 ampere output for 12 V fast charge; protection against overload; air cooled by fan; ammeter with 2% accuracy on full deflection of scale; equipped with leads.
- 0135 Battery, Storage (6-volt)**  
Auto and Power Mechanics: beginning, advanced  
Standard.
- 0140 Battery, Storage (12-volt)**  
Auto and Power Mechanics: beginning, advanced  
Standard.
- 0145 Bellows, Molder's**  
General Shop  
Metalworking: beginning, advanced  
Woodworking: beginning, advanced  
8-inch; made of high grade sheepskin.
- 0150 Bench, Arc welding**  
General Shop  
Metalworking: beginning, advanced  
Plastics: advanced  
Two station; with fire-proof curtain.  
(Must conform to ASA standards)
- 0155 Bench, Bookbinding (unit)**  
Graphic Arts: beginning, advanced  
Top 2" thick of solid wooden core with plastic laminated surface, washable, durable, resistant to glues, stains, water; base of heavy guage steel, tension bolted for strength and rigidity; complete with one steel shelf and two stacking type steel drawers; 72"L x 34"W x 34"H.
- 0160 Bench, Demonstration**  
Graphic Arts: advanced  
Woodworking: beginning, advanced  
 $1\frac{3}{4}$ " x 28" x 60" laminated maple top, solid maple base, locking casters, peg board tool panels for hand tools, double door cabinet.
- 0165 Bench, Electric (with test panel)**  
General Shop  
 $1\frac{3}{4}$ " x 30" x 6' top; includes AC voltmeter (0-5V, 0-50V, 0-300V), AC ammeter (0-1A, 0-5A, 0-25A), wathour meter, transformer, 120V.

primary and 4-8-16-24V secondary; with fuse box, switches, receptacles, circuit breaker, bell and buzzer: Input 120 volt AC; 1 phase; 30 amps.

**0170 Bench, Electric demonstration**

Electricity-Electronics: advanced

Woodworking: advanced

6' x 30", w/cabinet storage under variable 0-120 volt AC and DC outlets.

**0175 Bench, Elementary, Work**

Elementary

Woodcraft type; 4-station; hardwood construction throughout; top approximately 36" x 47"; recommended height: kindergarten—24", primary—27", intermediate (6, 7, 8, 9)—30"; with storage for 25-50 junior-sized general-craft hand tools; bench is available with following tool assortment:

1 bench brush	1 nail set
1 bit, dowel, 1/4"	1 manual, instruction
1 bit, dowel, 3/8"	1 plane, block
1 bit, dowel, 1/2"	1 rule, bench, 12"
1 bit brace, 8"	2 sanding blocks
2 "C" clamps, 2"	2 saws, coping
2 files, cabinet, 8"	1 saw, hand, 16"
1 file, round, 8"	2 sawbacks
1 hammer, nail, 10 oz.	1 screwdriver, 4" x 3/16" tip
1 hand drill, hollow handle	1 try-square, 6", all steel

**0180 Bench, Gas welding**

General shop

Metalworking: beginning, advanced

Plastics: beginning, advanced

Two station style, with open space below tops, sturdy all steel construction, tops to be provided with framing to hold fire-brick (with fire-brick installed), back board on both sides of separating partition to be covered with durable asbestos boards, equipped with a pre-assembled manifold with valves and regulators.

**0185 Bench Hook**

Elementary

Wood, approximately 5/8" x 5" x 10" with end cleats centered to permit right and left hand use. (Usually home-made.)

**0190 Bench, Island, Double-face**

Electricity-Electronics: beginning, advanced

6' x 48", with 12 steel lockers in base cabinet; top to be non-conducting pressed board, wood, or laminated plastic.

**0195 Bench, Machine**

Metalworking: beginning, advanced

Plastics: beginning, advanced

Hard maple top, approximately 2¼" x 40" x 96", height 32", storage for sheet metals under, one stake plate.

- 0200 Bench, Marble slab**  
Ceramics: beginning, advanced
- 0205 Bench, Metalworking (2 place)**  
General Shop  
Top 60" x 40" x 2¼", laminated maple, height 32", angle iron edges, one shelf.
- 0210 Bench, Metalworking (4 place)**  
Auto and Power Mechanics; beginning, advanced  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
Top 2¼" T x 24" W x 7" L, laminated maple with 2" x 2" x ⅛" angle iron fitted flush to work surface on both edges, legs welded heavy gauge steel with floor feet, 21" top span and 30" high, one stringer on each side for bracing.
- 0212 Bench, Molding**  
General Shop  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
Steel construction; size approximately 30" x 60" x 32" H. Trough galvanized for damp sand storage; storage below for tools, etc.
- 0215 Bench, Plaster**  
Plastics: beginning, advanced  
Stainless steel top approximately 26" x 96", stainless steel sink, area under for storage.
- 0220 Bench, Saw**  
Elementary  
Versatile saw "trestle"; top approximately 13" x 24"; 18" high. Slot through center of bench to allow sawing with no crossbar or other interference.
- 0225 Bench, Sheet metal (with stake plates)**  
General Shop  
Metalworking: beginning, advanced  
Top 60" x 40", x 2¼", laminated maple, height 32", angle iron edges, 3 shelves, with 2 stake plates 30" x 8".
- 0230 Bench, Soldering**  
General Shop  
Metalworking: beginning, advanced  
Steel, transite covered top, 6' x 30" W x 32" H; steel storage cabinet below.
- 0235 Bench, Spot welding**  
Metalworking: beginning, advanced  
All steel construction, 5' x 24" top; steel storage cabinet below.

**0240 Bench, TIB welding**

Metalworking: advanced

Two station style, with protective fire-proof curtain and curtain rack, all metal construction, tops provided with steel grating over a sheet of asbestos board, back boards on both sides of separating partition to be covered with durable asbestos board, open space to be provided below table tops for installation of power units.

**0245 Bench, Wall type**

General Shop

Top 100" x 24" x 2 1/4" T; laminated maple, height 32", 3 pairs legs, bolted construction, w/ lower shelf; enclosed cabinet.

**0250 Bench, Woodworking (2 place)**

Woodworking: beginning, advanced

2 1/4" x 28 1/2" x 64" edge-grain laminated hard maple top, bases of either wood or metal, containing double door cabinets, lockers, or drawers, base units 36"W x 21"D, overall bench height 33 1/4", supplied with 2 vises.

**0255 Bench, Woodworking (4 place)**

Ceramics: beginning, advanced

Elementary

General Shop

Plastics: beginning, advanced

Woodworking: beginning, advanced

2 1/4" x 54" x 64" edge-grain laminated hard maple top with angle steel spines, top mounted on two 36"W x 21"D x 31"H base units of either wood or metal, containing double door cabinets or lockers, equipped with 4 vises.

**0260 Bender, Universal**

General Shop

Metalworking: beginning, advanced

Plastics: beginning, advanced

On stand; capacity: radius 6" to 12", round mild steel bar 1/2", steel tubing 16 ga. 3/4" O.D., flat steel bar (bent flat) 1/4" x 1 1/2"; including accessories for variety of common bends in flats, rounds, and tubing.

**0265 Bending Jig, Adjustable**

General Shop

Bending posts of machine steel, fixed-one hardened; to take metal up to 1"W and 1/2"T.

**0270 Beveler**

Elementary

For edges of leather.

**0280 Binding Unit, Plastics**

Graphic Arts: beginning, advanced

Hand operated punching machine and hand operated binding machine; both lightweight and portable; maximum punching and binding length 12"; ring binder capacity 1/4" to 2" diameter.

- 0285 Bit, Auger (set)**  
Electricity-Electronics: beginning, advanced  
Elementary  
General Shop  
Plastics: beginning, advanced  
Woodworking: beginning, advanced  
Sizes 4 to 16; single thread screw.
- 0290 Bit, Combination drill and countersink (set)**  
Woodworking: beginning, advanced  
Sizes: 3/4" x #6, #7, #8; 1" x #6, #7, #8; 1 1/4" x #8, #10; 1 1/2" x #8, #10, #12.
- 0295 Bit, Combination drill and counterbore (set)**  
Woodworking: beginning, advanced  
Sizes: 1" x #8, #10; 1 1/4" x #8, #10; 1 1/2" x #10, #12.  
**Bit, Countersink (see: Countersink Bit (for brace) (set) #1065).**
- 0300 Bit, Electrician's**  
General Shop  
Woodworking: advanced  
18"L x 5/16" diameter.
- 0305 Bit, Expansive**  
Elementary  
General Shop  
Woodworking: beginning, advanced  
Boring: from 7/8" to 3"; square tang.
- 0310 Bit, Extension**  
Woodworking: beginning, advanced  
18-inch.
- 0315 Bit, Forstner (brace set)**  
Woodworking: beginning, advanced  
Sizes: 6, 8, 10, 12, 14, 16 (in 16ths of an inch).
- 0320 Bit, Forstner (machine set)**  
General Shop  
Woodworking  
1/2-inch shank; sizes: 6, 8, 10, 12, 14, 16 (in 16ths of an inch).
- 0325 Bit, Multi-spur (set)**  
Woodworking: beginning, advanced  
Set of 11; sizes: 1/2" to 1" by 16ths plus 1 1/8" and 1 1/4".

- 0330 Bit, Plug cutter (set)**  
 General Shop  
 Woodworking: beginning, advanced  
 Set of 5, sizes:  $\frac{3}{8}$ ",  $\frac{1}{2}$ ",  $\frac{5}{8}$ ",  $\frac{3}{4}$ ", 1".
- 0335 Bit, Screwdriver (set)**  
 Electricity-Electronics: beginning, advanced  
 General Shop  
 Square tang; for use with brace;  $\frac{1}{4}$ ",  $\frac{5}{16}$ ",  $\frac{3}{8}$ ",  $\frac{1}{2}$ ".
- 0340 Bit, Speed (set)**  
 Electricity-Electronics: beginning, advanced  
 Sizes:  $\frac{1}{4}$ ",  $\frac{3}{8}$ ",  $\frac{1}{2}$ ",  $\frac{5}{8}$ ",  $\frac{3}{4}$ ", 1".
- 0345 Bit, Twist, Car**  
 Woodworking: beginning, advanced  
 $\frac{3}{8}$ " x 18" with square tang.
- 0350 Bleeder, Brake**  
 Auto and Power Mechanics: beginning, advanced  
 Lightweight pressure tank; capacity 1 gallon; pressure dial 0-60 lbs.; safety valve set for 40 lb. release; means of checking fluid level visibly; fluid shut-off valve on hose; sediment screen; with adapters to accommodate all makes of cars and light trucks.
- 0360 Block, Proofing**  
 Graphic Arts: beginning, advanced  
 $3\frac{1}{4}$ " x 8" x  $2\frac{1}{2}$ "; maple wood; varnished; leather top faced with easily replaced thick felt.
- 0365 Block, Sanding**  
 Woodworking: beginning, advanced  
 Rubber, to use  $2\frac{3}{4}$ " x 9" paper.
- 0370 Blow Torch**  
 Elementary  
 Portable propane torch with pencil burner and replaceable cylinder.
- 0375 Blunger**  
 Ceramics: beginning, advanced  
 For casting and forming;  $\frac{1}{4}$  HP; smaller size adequate for school or studio.
- 0380 Board, Cutting**  
 Elementary  
 Maple; approximately  $\frac{3}{4}$ " x 8" x 10"; for leather.
- 0385 Board, Drafting**  
 Drafting: beginning, advanced  
 General Shop  
 Seasoned basswood, zinc-plated steel end cleats, both front and back

sanded smooth to provide two drafting surfaces, sizes optional, recommend 18" x 24" for beginning, either 24" x 36" or 31" x 42" for advanced, all boards 3/4" thick.

**0390 Boards, Pressing**

Graphic Arts: beginning, advanced

3/4" x 9" x 12"; hard maple; glued narrow strip construction to prevent warping; smooth finish; metal bindings fastened with screws.

**0395 Body-Fender Tools (set)**

Auto and Power Mechanics: beginning, advanced

Toe dolly; heel dolly; general purpose dolly; anvil dolly; 26 1/2" L body pick with slight curve sharp point; 31" L body pick with curve and point at right angles to shaft; hammers: reverse curve light bumping, wide face shrinking, picking and dinging, pick; vixen files: flat, half round, curved round, curved flat.

**0400 Bone Folder**

General Shop

Graphic Arts: beginning, advanced

1" W x 8" L; one pointed end; made of genuine bone; polished.

**0405 Bookcase**

Auto and Power Mechanics: beginning, advanced

Ceramics: beginning, advanced

Drafting: beginning, advanced

Electricity-Electronics: beginning, advanced

Elementary

General Shop

Graphic Arts: beginning, advanced

Plastics: beginning, advanced

Metalworking: beginning, advanced

Woodworking: beginning, advanced

Approximately 60" high, 10" to 12" deep, 72" long; closed back shelving with 3 shelves adjustable by increments of 1/2", wood or metal; open.

Graphic Arts: Steel safety cabinet with sliding tambour doors; 3 adjustable shelves; lock and key; dustproof; 30 1/2" W x 37 1/2" H x 17" D.

**0410 Borders, Decorations, Miscellaneous**

General Shop

Type high.

**0415 Boring Bar (set)**

Metalworking: advanced

Set of 3 bars, 3/8", 1/2", 3/4" dia. bars with 90°, 45°, and 30° end caps.

**0420 Boring Bar (cylinder set)**

Auto and Power Mechanics: advanced

Capacity 2.600"-5.250" to depth of 14" cutting at speed of 1 3/4" per minute; 1/4 HP, 3 Amp. 115V motor; with accessories.

- 0425 Box, Clay Storage, Portable**  
Ceramics: beginning, advanced  
General shop  
Metal lined for storage of damp materials; with casters.
- 0430 Brace, Ratchet**  
Electricity-Electronics: beginning, advanced  
Elementary  
General Shop  
Plastics: beginning, advanced  
Woodworking: beginning, advanced  
10-inch; box ratchet; universal jaws; ball bearing head.
- 0435 Bracket, Saw horse (pair)**  
Woodworking: beginning, advanced  
Steel; for 2" x 4" lumber.
- 0440 Brad Driver**  
Elementary  
Automatic; self-centering.
- 0445 Brake Adjusting Tool (Spoons) (set)**  
Auto and Power Mechanics: beginning, advanced  
1 Bendix 8"L; 1 Chevrolet adjusting tool 5 1/4"L; 1 Brake adjusting tool 8 1/4"L.
- 0450 Brake, Box and pan**  
Electricity-Electronics: beginning, advanced  
General Shop  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
24-inch, capacity 16 ga., depth of box 3", adjustable angles 0° to 135°.
- 0455 Brake, Service shop machine**  
Auto and Power Mechanics: advanced  
Mobile; 1 brake drum lathe with 1/2 HP motor, and all standard accessories, including adapters for all passenger cars and light trucks; mobile bench with accessory storage board; brake shoe grinder with 1/3 HP motor and all standard accessories; universal brake drum micrometer; brake surface cylinder hone; brake shoe grinding clamp.
- 0460 Brayer, Block printing**  
Elementary  
Graphic Arts: beginning, advanced  
4-inch width.

**0465 Broom, Push**

Auto and Power Mechanics: beginning, advanced  
Ceramics: beginning, advanced  
Drafting: beginning, advanced  
Electricity-Electronics: beginning, advanced  
Elementary  
General Shop  
Graphic Arts: beginning, advanced  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
Woodworking: beginning, advanced  
8-inch length; 3-inch trim; with handle.

**0470 Brush, Bench**

Auto and Power Mechanics: beginning, advanced  
Ceramics: beginning, advanced  
Drafting: beginning, advanced  
Elementary  
General Shop  
Graphic Arts: beginning, advanced  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
Woodworking: beginning, advanced  
8-inch brush, 13" overall.

**0475 Brush, Bookbinder's**

Graphic Arts: beginning, advanced  
1" or 1½" diameter; round; grey elastic bristles copper bound and vulcanizer in rubber.

**0480 Brush, Duster, Draftsman's**

Drafting: advanced  
General Shop  
2½-inch white bristles, staple set in hardwood, 5" handle, 13" overall length, flat beveled style.

**0485 Brush, Flat padding**

Graphic Arts: beginning, advanced  
1½"W; nickel plater ferrule vulcanized in rubber; black bristle.

**0490 Brush, Opaque**

Graphic Arts: beginning, advanced  
Sizes 00 and 1; camel hair; needle sharp; extra stiff; narrow.

**0495 Brush, Type**

Graphic Arts: advanced  
Approximate size 2½" x 5"; hardwood oval back; stiff hair bristles.

- 0500 Brush, Wire**  
 Auto and Power Mechanics: beginning, advanced  
 General Shop  
 Metalworking: beginning, advanced  
 Overall length: 10"-14", width 1" wire length approximately 1-3/16".
- 0505 Buffer, Long arm**  
 Metalworking: advanced  
 Long arm on pedestal, 33" between wheels, 5/8" arbor; motor: 3/4 HP, 3450 RPM, 220V, 3 phase, 600 cycles; magnetic starter.
- 0510 Buffer, Pedestal**  
 Elementary  
 General Shop  
 Metalworking: beginning  
 Plastics: beginning, advanced  
 2-6" x 1" muslin wheels, wide clearance design; motor: 1/3 HP, 1725 RPM, 115V, single phase, 60 cycle; manual starter with overload protection.  
 Plastics: Add: built-in dust collector with filters and dust bag, illumination over wheels.
- 0515 Bulb, Sponge**  
 General Shop  
 Metalworking: beginning, advanced  
 8 oz., rubber bulb, camel hair brush.
- 0520 Burnisher**  
 Elementary  
 General Shop  
 Woodworking: beginning, advanced  
 Round, tempered steel, 4 1/2" blade.
- 0525 Cabinet, Damp-proof**  
 Ceramics: beginning, advanced  
 General Shop  
 Base type; keeps clay MOIST AND WORKABLE. Double-wall type door. Interior of tempered zinc panels. Doors close against molded rubber gasket. Size 18"D x 36"L x 31"H.
- 0530 Cabinet, Drying**  
 Ceramics: beginning, advanced  
 General Shop  
 Base type; constructed of steel and expanded metal. Has interior shelf. 18"D x 36"L x 31"H. Low heat supply with air exhaust. Baked enamel finish.
- 0535 Cabinet, Drying rack**  
 Graphic Arts: beginning, advanced

Steel construction with reinforced top; 4 legs; open sides; to include 14 drying racks 20" x 28½" x 1⅛"; racks removable from table; inter-locking side rails to prevent shifting; floor space 25" x 30"; height 40".

**0540 Cabinet, Filing**

Auto and Power Mechanics: beginning, advanced

Ceramics: beginning, advanced

Drafting: beginning, advanced

Electricity-Electronics: beginning, advanced

Elementary

General Shop

Graphic Arts: beginning, advanced

Metalworking: beginning, advanced

Plastics: beginning, advanced

Woodworking: beginning, advanced

Four drawer, full cradle suspension, full plunger lock, aluminum hardware, size 52"H x 15"W x 28½"D.

**0542 Cabinet, Finishing (storage)**

General Shop

Metalworking: beginning, advanced

Plastics: beginning, advanced

Woodworking: beginning, advanced

All steel construction; adjustable shelves; 2 doors with locks.

**0545 Cabinet, Film cutter**

Graphic Arts: advanced

Steel construction; light tight; 4 drawers; large storage area near bottom; to accommodate 20" x 24" film; 24" trimmer mounted on top of cabinet; side shelf mounted on right side; floor dimensions 36" x 25".

**0550 Cabinet, Galley**

Graphic Arts: beginning, advanced

Heavy gauge steel; welded unit construction; galley runs of steel with smooth finish and providing ample clearance for easy movement of galleys; hard baked enamel finish; galleys capacity 50; galley size 8¾" x 13" or 10" x 16".

**0555 Cabinet, Glaze and library**

Ceramics: beginning, advanced

For filing sample glazes, reference manuals and catalogs. With 10 removable compartments. 12"D x 36"W x 13½"H. With shelf 22"H. Compartment 3" x 9" x 11".

**0560 Cabinet, Ink and roller**

Graphic Arts: beginning, advanced

30"W x 25"D x 40"H; steel construction; top of heavy steel; drawer

at top divided into 3 equal sections, one to include a 10" x 12" ink mixing slab; 2 hinged doors with locks below the drawer; left section contains 3 vertical slides, each of which can hold 6 rollers, maximum 24"L; right section contains 3 large ink shelves and a rag bin.

**0565 Cabinet, Instrument storage**

Electricity-Electronics: beginning, advanced  
30"W x 18"D x 72"H w/adjustable shelves and lock.

**0570 Cabinet, Mechanics, Roller**

General Shop  
27 $\frac{1}{4}$ " x 18 $\frac{1}{4}$ " x 32"H, with 3 drawers and storage compartment.

**0575 Cabinet, Machine accessory**

Woodworking: beginning, advanced  
2 $\frac{1}{4}$ " x 22" x 54" edge-grain laminated hard maple top; base of either wood or metal, containing eight drawers; base size 36"W x 21"D x 31"H.

**0580 Cabinet, Nail and screw storage**

Woodworking: beginning, advanced  
22 $\frac{1}{2}$ " high; 48 see-through plastic drawers; drawer size 2 $\frac{3}{4}$ "W x 1-7/16"D x 5 $\frac{7}{8}$ "L.

**0585 Cabinet, Paper and drawing storage**

General Shop  
Hardwood, 84" x 48" x 24", adjustable shelves, w/lock.

**0590 Cabinet, Parts storage**

Electricity-Electronics: beginning, advanced  
Plastics: beginning, advanced  
Metal, individual drawers approximately 5 $\frac{1}{4}$ " x 2 $\frac{3}{4}$ " x 11 $\frac{3}{8}$ ", approximately 100 drawers.

**0595 Cabinet, Plate filing**

Graphic Arts: beginning, advanced  
14"W x 24"D x 25 $\frac{1}{2}$ "H; steel construction; dustproof; mounted on 4 ball bearing steel wheels; swivel style; must accommodate hanger-envelopes, clip style hangers and hook style hangers; storage capacity: 150—10" x 14" press plates and negatives, 75—11" x 17", 14" x 17", 14" x 20" press plates and negatives; to include hanger-envelopes, clip-hangers, hook-hangers.

**0600 Cabinet, Proof press**

General Shop  
Metal, 36" x 24" x 50"H.

**0605 Cabinet, Quarter case**

Graphic Arts: beginning, advanced  
10 $\frac{3}{4}$ "W x 18 $\frac{1}{4}$ "D x 38 $\frac{1}{4}$ "H; steel construction; capacity for 20 quarter size cases; furnished with 12 assorted cases: 2 rule cases,

2 space and quad cases, 2 handy pack cases, 2 figure cases, 2 small cap font cases, 2 figure and fraction cases.

**0610 Cabinet, Sheet plastics storage**

Plastics: beginning, advanced

Metal; vertical dividers providing 12 bins, each approx. 4"W x 24"D x 36"H; door w/lock.

**0615 Cabinet, Small parts**

Metalworking: beginning, advanced

Steel; 36"W x 12"D x 73"H; one bin 36"W x 12"D x 11"H; three bins 12"W x 12"D x 12"H; six bins 6"W x 12"D x 12"H; one 24 drawer unit, each drawer 5 $\frac{1}{4}$ "W x 11"D x 1 $\frac{3}{8}$ "H; two 18 drawer units, each drawer 5 $\frac{1}{4}$ "W x 11"D x 2 $\frac{5}{8}$ "H w/two adj. dividers per drawer; 18 box drawers 8 $\frac{1}{4}$ "W x 11"D x 4 $\frac{5}{8}$ "H w/one adj. divider per drawer; double doors w/lock.

**0620 Cabinet, Storage**

Drafting: beginning, advanced

Elementary

Graphic Arts: beginning, advanced

Metalworking: beginning, advanced

Plastics: beginning, advanced

Woodworking: beginning, advanced

Drafting: 2-door; overall size 36" x 24" x 78"; one piece welded frame construction, w/four shelves; adjustable on 2" centers; three point locking device, chrome door handles and full, flush sanitary base.

Elementary: Steel construction, double swing-type doors, movable shelves, approx. 36" x 78" x 24"D.

Graphic Arts: 76"H x 36"W x 18 $\frac{1}{2}$ "D; heavy steel construction; lock and key provided; 2 swinging doors; 4 adjustable shelves.

Metalworking: Steel; 36"W x 18"D x 78"H; swinging double door style; 4 adj. shelves; three point locking device and lock; flush base.

Plastics: Metal; combination of bins and shelves; doors w/locks; approx. size 36" x 12" x 84".

Woodworking: 32"W x 22"D x 84"H; 4 full-width shelves 29"W x 19"D, adjustable; wood or metal construction.

**0625 Cabinet, Tool storage**

Electricity-Electronics: beginning, advanced

General Shop

Metalworking: beginning, advanced

Plastics: beginning, advanced

Woodworking: beginning, advanced

Approx. 62"W x 22"D x 84"H; constructed of heavy maple framing and birch plywood panels; doors 1 $\frac{1}{8}$ " thick; locks and hardware heavy duty; upper section and doors form panels for tools, lower section for storage; with tote trays and/or adjustable shelves, with doors and locks.

- 0630 Cabinet, Type, Double tier**  
 General Shop  
 72" x 37<sup>3</sup>/<sub>4</sub>", height of sloping back 40<sup>1</sup>/<sub>2</sub>"; lead and slug rack, w/44 type cases.
- 0635 Cabinet, Type, Single tier**  
 Graphic Arts: beginning, advanced  
 Steel construction; school type; steel working top sloping front and back; 22 case body includes 1 steel front blank case, 2 steel front wells job cases, 19 steel front California job cases; includes a lead and slug rack, galley and quarter case unit; locking device for cases; floor space 32<sup>1</sup>/<sub>4</sub>" x 42<sup>1</sup>/<sub>2</sub>"; height to work surface 41"; overall 46"H; work area each side 32<sup>1</sup>/<sub>4</sub>" x 17".
- 0640 Caliper, Hermaphrodite**  
 Auto and Power Mechanics: advanced  
 Metalworking: beginning, advanced  
 6" length; lock joint, w/adjustable point.
- 0645 Caliper, Inside (6")**  
 Auto and Power Mechanics: beginning, advanced  
 Drafting: advanced  
 General Shop  
 Metalworking: beginning, advanced  
 Plastics: beginning, advanced  
 Solid nut; bow spring.
- 0650 Caliper, Inside (8")**  
 General Shop  
 Solid nut; bow spring.
- 0655 Caliper, Outside (5")**  
 Auto and Power Mechanics: beginning, advanced  
 Drafting: advanced  
 General Shop  
 Metalworking: beginning, advanced  
 Plastics: beginning, advanced  
 Solid nut; bow spring.
- 0660 Caliper, Outside (8")**  
 General Shop  
 Metalworking: advanced  
 Solid nut; bow spring.
- 0665 Caliper, Vernier**  
 Auto and Power Mechanics: advanced  
 Metalworking: advanced  
 5" capacity readable in thousandths with vernier. Inside and outside jaws and depth gauge, locking device and friction roller.

**0670 Camera, Copying**

Graphic Arts: advanced

Horizontal, dark room type, process camera; all metal, primarily of aluminum castings, construction; focusing accomplished by means of accurate scales; vacuum film holder, hinged to camera; ground glass, hinged to camera; electric timer and control panel to control the solenoid shutter and the camera lamps; lens, color corrected, multi-element, enlargement 2 times, reduction 5 times, anastigmat; copy-board, glass covered frame, equipped to take irregular copy thickness; lamps, 4 incandescent 1500 watt bulbs; flash lamp, attached for flashing through the lens; maximum film size 16" x 20"; single phase, 110 V, AC, 60 cycle.

**0675 Camera, Range finder (35mm)**

Graphic Arts: beginning, advanced

Includes single-window range and viewfinder with life-size image; f/2.8 lens; speed 1 second to 1/1000th and B; one stroke film advance and shutter-wind lever; automatic flash synchronization for both conventional flash bulbs and electronic flash; built-in self timer (up to 10 seconds delay); shutter-coupled exposure meter; flash unit; gadget bag for camera and accessories.

**0680 Camera, Reflex, Single lens (35mm)**

Graphic Arts: beginning, advanced

Pentaprism viewfinder; multi-split range finder; 50mm f 1.9 fully automatic lens; rapid rewind crank; rapid film winding lever; exposure counter; shutter speed of 1 second to 1/1000 second and bulb; easy lens removal; flash unit (conventional); extension tubes for close-up work; wide angle lens; telephoto lens.

**0685 Camera, Reflex, Twin lens**

Graphic Arts: beginning, advanced

Interchangeable lenses, equipped with 105mm f 3.5 normal focus lens, 65mm f 3.5 wide angle lens, and 180mm f 4.5 telephoto lens; 1 second to 1/500th lens speed; rapid-wind crank; which prevents accidental double exposures, but does permit when desired; removable viewing hood which interchanges with eyelevel finders; cable release socket; standard flash; gadget bag for camera and accessories.

**Can, Benzene (see: Container, Benzene #1045)**

**0690 Can, Carwash**

Auto and Power Mechanics: advanced  
3 gallon; galvanized pail.

**0695 Can, Oil filler and measure (1 qt.)**

Auto and Power Mechanics: beginning, advanced  
Copper plated steel construction.

**0700 Can, Oil filler and measure (2 qt.)**

Auto and Power Mechanics: beginning, advanced

Copper plated steel construction.

- 0705 Can, Oil filler and measure (5 qt.)**  
Auto and Power Mechanics: beginning, advanced  
Copper plated steel construction.
- 0710 Can, Oily waste**  
Auto and Power Mechanics: beginning, advanced  
General Shop  
Graphic Arts: beginning, advanced  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
Woodworking: beginning, advanced  
10 gal. capacity; Underwriter's Laboratory approved; foot opening,  
automatic closing.
- 0715 Can, Radiator**  
Auto and Power Mechanics: advanced  
2 gallon capacity; plastic; curved spout.
- 0720 Can, Safety (1 qt.)**  
Auto and Power Mechanics: beginning, advanced  
Ceramics: beginning, advanced  
General Shop  
Graphic Arts: beginning, advanced  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
Woodworking: beginning, advanced  
Metal: one qt. capacity; spout w/safety spring hand lever to open;  
with safety screen in nozzle.
- 0725 Can, Safety (1 gal.)**  
Auto and Power Mechanics: beginning, advanced  
Ceramics: beginning, advanced  
General Shop  
Graphic Arts: beginning, advanced  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
Woodworking: beginning, advanced  
Metal; one gal. capacity; spout w/safety spring hand lever to open;  
with safety screen in nozzle.
- 0728 Can, Safety (5 gal.)**  
Metal, five gallon capacity; spout with safety spring hand lever to  
open; with safety screen in nozzle.
- 0730 Capacitor Substitution Box**  
Electricity-Electronics: beginning, advanced  
100 mmf. to .111 mfd.; 350 WVDC.

**0735 Carburetor Repair Set**

Auto and Power Mechanics: advanced

Cleaning tank; cleaning solvent; tools in sets according to brand of carburetor.

**0740 Cards, Alphabet (set)**

Graphic Arts: beginning, advanced

Sturdy tracing cards to show complete alphabet characters of display type; sizes 12 to 72 point; approximately 125 cards with about 75 popular type faces; each card shows complete upper and lower case alphabets, including figures and punctuation marks; printed both sides on durable bristol; round cornered; set includes wooden box with hinged top to hold complete set.

**0745 Cart, Stock**

Elementary

Metal construction; approx. 36"L x 24"W x 32"H; equipped with 5" rubber wheeled casters, 2 swivel, 2 stationary.

**0750 Cart, Tool**

Elementary

Mobile cart to be moved from classroom to classroom. Designed to accommodate 20 students. Provision for nails, screws, fasteners, and miscellaneous supplies plus the following tools, which are "junior sized" whenever possible:

8 auger bits	6 jack planes
4 back saws	6 block planes
2 braces	1 combination pliers
16 4" "C" clamps	1 side cutting pliers
12 coping saws with blades	1 hand rip saw
8 crosscut saws	6 wooden rules
1 countersink	1 scratch awl
2 dividers	3 screwdrivers
7 assorted files	2 pr. scissors
2 file cards	4 combination squares
6 hammers	4 try squares
2 hand drills	6 serrated files with extra blades
3 keyhole saws	6 portable vises
2 nail sets	

**Carving Tools (see: Chisel, Carving #0775)**

**Ceramic Molding Tool (see: Modeling Tool #2705)**

**0755 Chair, Teacher's**

Auto and Power Mechanics: beginning, advanced

Ceramics: beginning, advanced

Drafting: beginning, advanced

Electricity-Electronics: beginning, advanced

Elementary

General Shop  
Graphic Arts: beginning, advanced  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
Woodworking: beginning, advanced  
Welded-steel construction; swivel base w/casters.

**Charger, Battery (see: Battery Eliminator and Charger #0130)**

**0760 Chases, Platen**

General Shop  
Graphic Arts: beginning, advanced  
Cast iron; size to fit platen press; handle-type recommended.

**0765 Chisel, Butt (set)**

Elementary  
General Shop  
Plastics: beginning, advanced  
Woodworking: beginning, advanced  
3" blade; plastic handles; sizes: 1/4", 1/2", 3/4", 1", 1 1/4", 1 1/2".

**0770 Chisel, Cape**

General Shop  
Metalworking: beginning, advanced  
1/2" stock, 1/4" cutting edge.

**0775 Chisel, Carving (set)**

Elementary  
General Shop  
Plastics: beginning, advanced  
Woodworking: beginning, advanced  
Set of 6 chisels and gouges; for light wood and linoleum carving;  
approx. 6" long.

**0780 Chisel, Cold (set)**

Auto and Power Mechanics: beginning, advanced  
Electricity-Electronics: beginning, advanced  
Elementary  
General Shop  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
Cutting edges of 1/4", 3/8", 1/2", 3/4".

**0785 Chisel, Diamond point (set)**

Metalworking: beginning, advanced  
1/4", 3/8", 1/2" bits.

**0790 Chisel, Gouge, Inside (set)**

General Shop

Woodworking: beginning, advanced

Sizes: 1/4", 3/8", 1/2", 3/4", 1".

**0795 Chisel, Gouge, Outside (set)**

Woodworking: beginning, advanced

Set of 5; sizes 1/4", 3/8", 1/2", 3/4", 1".

**0800 Chisel, Round nose (set)**

Metalworking: beginning, advanced

1/4", 3/8" bits.

**0805 Chisel, Socket firmer (set)**

General Shop

Plastics: beginning, advanced

Woodworking: beginning, advanced

Set of 6; sizes 1/4", 3/8", 1/2", 5/8", 3/4", 1".

**0810 Chisel, Thonging (4-prong)**

Elementary

1/8"; tempered spring steel blades; chrome plated; hand ground cutting edges.

**0815 Chisel, Thonging (3-prong)**

Elementary

1/8"; tempered spring steel blades; chrome plated; hand ground cutting edges.

**0820 Chisel, Thonging (single-prong)**

Elementary

1/8"; tempered spring steel blades; chrome plated; hand ground cutting edges.

**0825 Chisel, Thonging (single-prong)**

Elementary

3/32"; tempered spring steel blades; chrome plated; hand ground cutting edges.

**0830 Chisel, Thonging (set)**

General Shop

1, 2, 3, and 4 prong; sizes: 3/32" and 1/8"; tempered spring steel blades; chrome plated; hand ground cutting edges.

**0835 Chisel, Wood turning (set)**

General Shop

Plastics: beginning, advanced

Woodworking: beginning, advanced

Hardwood handles w/metal ferrules and overall length of at least 17"; basic set of 8 to include 1 each: 1" skew chisel, 1" gauge, 1/2" skew chisel, 5/8" gauge, 1/2" round nose, 3/8" gauge, 1/2" spear point, 1/2" parting tool; optional: 1/2" diamond point chisel, 1/2" left skew

chisel, 1/2" right skew chisel, 1/4" round nose chisel, 1/4" diamond nose chisel, 1/4" square chisel.

**0840 Chuck, Magnetic**

Metalworking: advanced

Permanent ceramic; 4" x 8 1/2" work surface.

**0845 Circle Cutter**

Plastics: beginning, advanced

Woodworking: beginning, advanced

Heavy duty; 1/2" round shank; capacity 1" to 8" dia.; six extra tool bits.

**0850 Clamp, Bar (36")**

Elementary

General Shop

Plastics: beginning, advanced

Woodworking: beginning, advanced

I-bar with solid handle.

**0855 Clamp, Bar (48")**

General Shop

Plastics: beginning, advanced

Woodworking: beginning, advanced

I-bar with solid handle.

**0860 Clamp, Bar (60")**

General Shop

I-bar with solid handle.

**0865 Clamp, "C" (2")**

Elementary

Steel screw; malleable iron clamp.

**0870 Clamp, "C" (3")**

Elementary

General Shop

Woodworking: beginning, advanced

Steel screw; malleable iron clamp.

**0875 Clamp, "C" (4")**

Auto and Power Mechanics: beginning, advanced

General Shop

Metalworking: beginning, advanced

Woodworking: beginning, advanced

Steel screw; malleable iron clamp.

**0880 Clamp, "C" (6")**

Auto and Power Mechanics: beginning, advanced

General Shop

Metalworking: beginning, advanced  
Woodworking: beginning, advanced  
Steel screw; malleable iron clamp.

**0885 Clamp, "C" (8")**

Auto and Power Mechanics: beginning, advanced  
General Shop  
Metalworking: beginning, advanced  
Woodworking: beginning, advanced  
Steel screw; malleable iron clamp.

**0890 Clamp, "C" (10")**

Auto and Power Mechanics: beginning, advanced  
Metalworking: advanced  
Steel screw; malleable iron clamp.

**0895 Clamp, "C" (12")**

Metalworking: beginning, advanced  
Steel screw; malleable iron clamp.

**0900 Clamp, Corner**

Woodworking: beginning, advanced  
3" capacity.

**0905 Clamp, Fixture (set)**

Woodworking: beginning, advanced  
For use with  $\frac{3}{4}$ " pipe.

**0910 Clamp, Handscrew (#3/0)**

General Shop  
Woodworking: beginning, advanced  
Hardwood; jaws open 3", length 6".

**0915 Clamp, Handscrew (#0)**

General Shop  
Woodworking: beginning, advanced  
Hardwood; jaws open 4 $\frac{1}{2}$ ", length 8".

**0920 Clamp, Handscrew (#1)**

General Shop  
Woodworking: beginning, advanced  
Hardwood; jaws open 6", length 10".

**0925 Clamp, Handscrew (#2)**

General Shop  
Woodworking: beginning, advanced  
Hardwood; jaws open 8 $\frac{1}{2}$ ", length 12".

**0930 Clamp, Handscrew (#3)**

General Shop

- Woodworking: beginning, advanced  
Hardwood; jaws open 10", length 14".
- 0935 Clamp, Mitre frame**  
Woodworking: beginning, advanced  
With 4 extension rods to give max. capacity of 25" x 24".
- 0940 Clamp, Spring (#2)**  
Elementary  
General Shop  
Heavy gauge steel; jaws open 2".
- 0945 Clamp, Spring (#3)**  
Plastics: beginning, advanced  
Heavy gauge steel; jaws open 3".
- 0950 Cleaner, Ring groove**  
Auto and Power Mechanics: beginning, advanced  
To remove carbon from ring grooves without injury to piston; to service all pistons with 5/64, 3/32, 1/8, or 3/16 ring grooves; piston range 2 1/2"-5".
- 0955 Cleaner, Spark plug**  
Auto and Power Mechanics: beginning, advanced  
Spark indicator test dial; set of rubber cleaner adapters; needle valve for control of air tester; rubber covered high tension wire and clip; double filter cleaner bag; automatic air line vapor trap.
- 0960 Cleaner, Valve guide**  
Auto and Power Mechanics: advanced  
Wire brush; twisted wire shank; 5/16", 11/32", 3/8", 7/16" diameters.
- 0965 Clutch Aligner (set)**  
Auto and Power Mechanics: advanced  
Locks onto pilot bearing and leaves operator's hands free.
- 0970 Coil Winder**  
Electricity-Electronics: beginning, advanced  
Capacity 22 to 40 gals.; wire with turns checker.
- 0975 Compass and Divider (set)**  
Drafting: beginning, advanced  
General Shop  
Includes large 6 1/2", rapid action, bow compass with lengthening bar to draw circles up to 11" diameter; 6", hairspring, friction-head divider with straightening device; both instruments to be flat type, nickel-silver, chrome plated.
- 0980 Compass, Beam**  
Drafting: beginning, advanced

24"; nickel-silver; chrome plated; with appropriate bars; coupler; micrometer adjustment needle center; pencil and pen needle point.

**0985 Compass, Chalkboard**

Drafting: beginning, advanced  
General Shop

16" minimum length; metal or wood; friction joint; elbows; rubber tip; collet lock for chalk and tip.

**0990 Compass, Drop bow**

Drafting: advanced

4" drop bow compass; with interchangeable pen and pen points; German silver with tempered stainless steel needle point.

**0995 Compass, Pencil**

Elementary

General Shop

Woodworking: beginning, advanced

With or without graduated protractor.

**1000 Composing Stick (6")**

General Shop

Graphic Arts: beginning, advanced

Two piece stick equipped with a smooth finish knee; sets to picas and nonpareils; 4 teeth on the knee fit into rectangular slots in the rear wall of the body; 2"W; 6"L; graduated to 22 picas.

**1005 Composing Stick (10")**

General Shop

Graphic Arts: beginning, advanced

Two piece stick equipped with a smooth finish knee; sets to picas and nonpareils; 4 teeth on the knee fit into rectangular slots in the rear wall of the body; 2"W, 10"L; graduated to 46 picas.

**1010 Composing Stick (12")**

Graphic Arts: beginning, advanced

Two piece stick equipped with a smooth finish knee; sets to picas and nonpareils; 4 teeth on the knee fit into rectangular slots in the rear wall of the body; 2"W, 12"L; graduated to 58 picas.

**1015 Composing Stick (15")**

Graphic Arts: beginning, advanced

Two piece stick equipped with a smooth finish knee; sets to picas and nonpareils; 4 teeth on the knee fit into rectangular slots in the rear wall of the body; 2"W, 15"L; graduated to 73 picas.

**1020 Composing Stick, Micrometer knee (10")**

Graphic Arts: beginning, advanced

Two piece stick with a smooth finish knee; micrometer screw for instant setting to picas, nonpareils, and fractions of a point; 2"W, 10"L; graduated to 46 picas.

**1025 Compressor, Air**

Auto and Power Mechanics: beginning, advanced

Ceramics: beginning, advanced

Electricity-Electronics: beginning, advanced

General Shop

Graphic Arts: beginning, advanced

Metalworking: beginning, advanced

Woodworking: beginning, advanced

120 p.s.i.; 1 stage; tank mounted; 1½ HP, 3-phase, 208V motor; 60 gallon tank; safety valve; drain cock; automatic pressure control; beltguard; pressure gauge; 4.5 cu. ft. per min. delivered output at rated pressure.

(Note: This compressor not suitable for operating automotive hoist.)

**1030 Compressor, Piston ring (set)**

Auto and Power Mechanics: beginning, advanced

General Shop

Capacity 1 ¾" to 7"; bands of high spring steel; self locking heavy duty ratchet pawl; double friction brake adjustment.

**1035 Compressor, Valve spring**

Auto and Power Mechanics: beginning, advanced

General Shop

Valve spring lifter; parallel jaws; scissor action; upper and lower jaws adjustable; heavy duty construction; lock to hold positively at any height;

or: Clamp type valve lifter; universal type for 7/8" to 2½" spring diameters; with accessories (jaw extensions, etc.); for use on cars, trucks; L-head and valve-in-head engines; heavy duty.

**Container, Benzene (1 quart) (see: Can, Safety—0720)**

**Container, Benzene (1 gallon) (see: Can, Safety—0725)**

**Container, Benzene (5 gallon) (see: Can, Safety—0728)**

**1060 Container, Plaster**

Plastics: beginning, advanced

100 lb. capacity; metal or plastic, with covers.

**1065 Countersink Bit (for brace) (set)**

Elementary

General Shop

Metalworking: beginning

Plastics: beginning, advanced

Woodworking: beginning, advanced

Sizes: 5/8" and 3/4".

**1070 Countersink, High speed**

Electricity-Electronics: beginning, advanced

**General Shop**

**Metalworking: beginning**

**Woodworking: beginning, advanced**

**1/4" shank; 1/2" size.**

**1075 Crane, Portable**

**Auto and Power Mechanics: advanced**

**2 ton capacity; hydraulic; double action pump; adjustable, 3 position beam; with chain and hook.**

**1080 Creaser, Adjustable edge**

**General Shop**

**Hardwood handle; width of crease regulated by thumb screw.**

**1085 Creeper**

**Auto and Power Mechanics: beginning, advanced**

**Padded headrest; 3 1/4" angle axle casters; 16"W x 36"L.**

**1090 Crimping Tool**

**Electricity-Electronics: beginning, advanced**

**Crimps various solderless wire terminals. Available with wire cutters and strippers combined. Shears machine screws without damage to threads.**

**1095 Crucible (#4)**

**Metalworking: beginning, advanced**

**Silicon carbide.**

**1100 Crucible (#10)**

**Metalworking: beginning, advanced**

**Silicon carbide.**

**1110 Crucible Hand Shank (#10)**

**Metalworking: beginning, advanced**

**One-man; for #10 crucible.**

**1112 Crucible Hand Shank (#4)**

**Metalworking: beginning, advanced**

**One-man; for #4 crucible.**

**1115 Crucible Lifter**

**Metalworking: beginning, advanced**

**Two-man; #1 for #8, #10, #12 crucible.**

**1120 Crucible Ring Shank**

**Metalworking: beginning, advanced**

**Two-man; for #8, #10, #12 crucible.**

**1125 Crusher, Jaw (laboratory model)**

**Ceramics: advanced**

- 1130 Curve, Irregular (set)**  
 Drafting: beginning, advanced  
 General Shop  
 Transparent, professional quality, non-discoloring plastic irregular curve set; 8 curves; .060 thick; sizes 8, 10, 12, 13, 15, 16, 18, 20.
- 1135 Curve, Rule (adjustable)**  
 Drafting: advanced  
 Adjustable curve rule with square lead-bar sliding between steel ribbons; parts covered with rubber with rounded ruling edges; will bend to 1½" circle and larger; 31" in length.
- 1140 Cutter, Bolt**  
 Auto and Power Mechanics: beginning, advanced  
 General Shop  
 Metalworking: beginning, advanced  
 Minimum 14"; ¾" soft bolt capacity; cutting jaws hardened steel, replaceable.
- 1145 Cutter, Bushing**  
 Auto and Power Mechanics: advanced  
 For splitting soft metal bushings; 7/16" x 3/16" bit; ½" stock; 7" long chip curler to push metal away from work.
- 1150 Cutter, Glass**  
 Elementary  
 General Shop  
 Woodworking: beginning, advanced
- 1155 Cutter, Lead and slug**  
 General Shop  
 Graphic Arts: beginning, advanced  
 Settings from a nonpareil to 106 picas; self locking gauge.
- 1160 Cutter, Linoleum (set)**  
 Elementary  
 General Shop  
 Graphic Arts: beginning, advanced  
 Push-type cutters; set of 5 assorted cutters and handle.
- 1165 Cutter, Linoleum (set)**  
 Elementary  
 Pull-type cutters; set of 5 assorted cutters and handle.
- 1170 Cutter, Milling Machine, End (set)**  
 Metalworking: advanced  
 High speed steel; actual type and size to be specified according to need and machine size.

- 1175 Cutter, Milling Machine, Gear tooth, Involute (set)**  
 Metalworking: advanced  
 High speed; diametral pitch and number of cutter forms to be specified according to need.
- 1180 Cutter, Milling Machine, Helical, Plain**  
 Metalworking: advanced  
 High speed steel; diameter, width of face and arbor hole to be specified according to need.
- 1185 Cutter, Milling Machine, Shell and arbor**  
 Metalworking: advanced  
 High speed steel; actual sizes and types to be specified according to need and machine size.
- 1190 Cutter, Milling Machine, Slitting saw**  
 Metalworking: advanced  
 High speed steel; diameter, thickness, arbor hole and number of teeth to be specified according to need.
- 1195 Cutter, Muffler**  
 Auto and Power Mechanics: advanced  
 Adjustable 1½" to 2½"; 4 cutting wheels; threaded shaft adjustment.
- 1200 Cutter, Paper**  
 Drafting: beginning, advanced  
 General Shop  
 Graphic Arts: beginning, advanced  
 24"; scoring every ½ inch on hardwood surface; top and bottom scale; removable, self-sharpening blade of hardened tool steel; slide guide; safety spring to prevent handle from flying up or dropping.
- 1205 Cutter, Pipe**  
 Auto and Power Mechanics: advanced  
 Metalworking: advanced  
 Capacity ⅛" to 1" diameter; 2 rollers; reamer blade; replaceable cutter blade.  
**Cutter, Plug (see: Bit, Plug cutter (set) #0330)**
- 1210 Cutter, Round corner**  
 Graphic Arts: beginning, advanced  
 Pedestal model; foot operated; 2½" capacity; adjustable 45° angle gauge; includes 1 each #2, #1, #0, #00 knives.
- 1215 Cutter, Sprue**  
 Metalworking: beginning, advanced  
 ¾" x 10".

- 1220 Cutter, Tubing**  
 Auto and Power Mechanics: beginning, advanced  
 General Shop  
 1/8" to 1" capacity.
- 1225 Cutting-Off Tool, Lathe**  
 Metalworking: beginning, advanced  
 Straight shank; with beveled cutter and wrench.
- 1230 Densitometer, Photo**  
 Graphic Arts: advanced  
 Logarithmic scale meter; blue probe; set of 5 measuring apertures;  
 110V.
- 1235 Desk, Teacher's**  
 Auto and Power Mechanics: beginning, advanced  
 Ceramics: beginning, advanced  
 Drafting: beginning, advanced  
 Electricity-Electronics: beginning, advanced  
 Elementary  
 General Shop  
 Graphic Arts: beginning, advanced  
 Metalworking: beginning, advanced  
 Plastics: beginning, advanced  
 Woodworking: beginning, advanced  
 Approximately 42" x 30" x 29"H; welded steel construction; single  
 pedestal with file drawer and tool drawer both lockable. Top drawer  
 extends across front and is reference drawer approximately 24" x  
 36" x 2 3/8" deep. Desk top can be heavy duty linoleum with stainless  
 steel or aluminum edging or can be laminated plastic with laminated  
 plastic edging.
- 1240 Desk, Teacher's standing**  
 Drafting: beginning, advanced  
 Approximately 36" x 26" x 42"H at front, 53"H at back; welded  
 steel construction; pigeonhole back; locking drawer at front; (use  
 with instructor's stool #4610).
- 1245 Die, Dapping**  
 Metalworking: beginning, advanced  
 2 1/2" cube; 21 spheres 3/16" to 2-3/16".
- 1250 Die, Letter (set)**  
 Auto and Power Mechanics: beginning, advanced  
 Drafting: beginning, advanced  
 Electricity-Electronics: beginning, advanced  
 General Shop  
 Graphic Arts: beginning, advanced

Metalworking: beginning, advanced  
Woodworking: beginning, advanced  
For hard surfaces; 3/16" character height.

**1255 Die, Number (set)**

Auto and Power Mechanics: beginning, advanced  
Drafting: beginning, advanced  
Electricity-Electronics: beginning, advanced  
General Shop  
Graphic Arts: beginning, advanced  
Metalworking: beginning, advanced  
Woodworking: beginning, advanced  
For hard surfaces; 3/16" character height.

**Dispenser, Automatic transmission oil (see: Funnel, Longspout, Automatic transmission #1670)**

**1260 Dispenser, Cellophane tape**

Graphic Arts: beginning, advanced  
Heavy duty; 72 yard roll capacity.

**1265 Dispenser, Drafting tape**

Drafting: beginning, advanced  
For both portable and stationary application; cuts all kinds and widths of tape rolls up to 1 1/2"; fits both 3" and 1" cores; holds rolls up to 7 3/4" O.D.

**1270 Dispenser, Gummed paper**

Graphic Arts: beginning, advanced  
Automatic moistener; dispenses 1/2" to 1 1/2" tape; rustproof construction.

**1275 Display Board**

Drafting: beginning, advanced  
Aluminum frame; adjustable; chart hangers at top; cork composition; 48"W x 48" to 96"L with 96"L preferred if space permits.

**1280 Divider, Blackboard**

Drafting: beginning, advanced  
Hardwood.

**1285 Divider, Proportional**

Drafting: advanced  
7 1/2" or larger; direct reading for lines in ratios from 3:4 to 1:10 and for circles in ratios from 4 to 20; German silver.

**1290 Divider Spring (4")**

Metalworking: advanced  
Solid nut; Yankee pattern.

- 1295 Divider Spring (6")**  
 Auto and Power Mechanics: beginning, advanced  
 General Shop  
 Metalworking: beginning, advanced  
 Plastics: beginning, advanced  
 Solid nut.
- 1300 Divider Spring (8")**  
 General Shop  
 Metalworking: advanced  
 Solid nut.
- 1305 Divider, Wing**  
 Electricity-Electronics: beginning, advanced  
 Elementary  
 Woodworking: beginning, advanced  
 6"; steel; polished brass joints.
- 1310 Dolly, Body (set)**  
 Auto and Power Mechanics: advanced
- 1317 Dowel Centers (pairs) (set)**  
 Woodworking: beginning, advanced  
 1/4", 5/16", 3/8", 1/2".  
**Dowelling Jig (see: Jig, Dowelling #2245)**  
**Drafting set (see: Compass and Divider (set) #09)**
- 1320 Dresser, Abrasive wheel**  
 Auto and Power Mechanics: beginning, advanced  
 Elementary  
 General Shop  
 Metalworking: beginning, advanced  
 Plastics: beginning, advanced  
 Woodworking: beginning, advanced  
 Diamond or hooded Huntington-type with extra star cutters. (Must conform to ASA standards.)
- 1325 Drill, Blacksmith (set)**  
 General Shop  
 High speed; 1/2" shank; sizes 5/8", 11/16", 3/4", 13/16", 7/8", 15/16", 1".
- 1330 Drill, Electric, Portable (1/4")**  
 Auto and Power Mechanics: beginning, advanced  
 Electricity-Electronics: beginning, advanced  
 Elementary  
 General Shop  
 Graphic Arts: beginning, advanced

Metalworking: beginning, advanced

Plastics: beginning, advanced

Woodworking: beginning, advanced

Key type chuck; ball thrust bearing; no load speed, approximately 2000 RPM (or variable speed); complete with 3-wire cord and plug; 120V; heavy duty; pistol grip with switch built-in.

**1335 Drill, Electric, Portable ( $\frac{3}{8}$ " )**

Auto and Power Mechanics: beginning, advanced

Metalworking: advanced

Heavy duty; 115V; 3 amp; side arm; needle thrust bearings; RPM (1000—no load) (650—load); 3 jaw keyed chuck; pistol grip with switch built-in; three wire cord and plug.

**1340 Drill, Electric, Portable ( $\frac{1}{2}$ " )**

Auto and Power Mechanics: advanced

Metalworking: advanced

Heavy duty; 115V; 3 amp; side arm; needle thrust bearings; RPM (1000—no load) (650—load); 3 jaw keyed chuck; pistol grip with switch built-in; three wire cord and plug.

**1350 Drill, Hand ( $\frac{1}{4}$ " )**

Auto and Power Mechanics: beginning, advanced

Electricity-Electronics: beginning, advanced

Elementary

General Shop

Graphic Arts: beginning, advanced

Metalworking: beginning, advanced

Plastics: beginning, advanced

Woodworking: beginning, advanced

Solid grey-iron wide flange gear and 2 steel pinions; machine cut teeth; 3 jaw chuck; steel frame; hardwood handle and gear knob.

**1355 Drill, Hand ( $\frac{3}{8}$ " )**

Auto and Power Mechanics: beginning, advanced

Ceramics: beginning, advanced

General Shop

Graphic Arts: beginning, advanced

Metalworking: beginning, advanced

Plastics: beginning, advanced

Woodworking: beginning, advanced

Solid grey-iron wide flange gear and 2 steel pinions; machine cut teeth; 3 jaw chuck; steel frame; hardwood handle and gear knob.

**1360 Drill Stand, Fractional**

Auto and Power Mechanics: beginning, advanced

Electricity-Electronics: beginning, advanced

Elementary

General Shop

Graphic Arts: beginning, advanced

Metalworking: beginning, advanced

Plastics: beginning, advanced

Woodworking: beginning, advanced

For twist drills from 1/16" to 1/2" by 64ths.

**1365 Drill, Twist (letter set)**

Electricity-Electronics: beginning, advanced

Metalworking: beginning, advanced

High speed steel; straight shank; letter set A to Z.

**1370 Drill, Twist (number set)**

Auto and Power Mechanics: beginning, advanced

Electricity-Electronics: beginning, advanced

Metalworking: beginning, advanced

Plastics: beginning, advanced

High speed steel; straight shank; numbers 1 to 60; wire gauge.

**1375 Drill, Twist, Straight shank (fractional set)**

Auto and Power Mechanics: beginning, advanced

Electricity-Electronics: beginning, advanced

Elementary

General Shop

Graphic Arts: beginning, advanced

Metalworking: beginning, advanced

Plastics: beginning, advanced

Woodworking: beginning, advanced

High speed steel; by 64ths from 1/16" to 1/2".

**1380 Drill, Twist, Taper shank (fractional set)**

Metalworking: beginning, advanced

High speed; #2 Morse Taper Shank; 5/8" to 1" by 8ths.

**1385 Dry Press**

Ceramics: beginning, advanced

Table model. Overall 15"H x 9"D x 7 1/2"W. Chromium plated frame. Pressure up to approximately 1 ton by adjusting bar handle. Steel die for 1" disc supplied. Wt. 25 lbs.

**1390 Dry, Print**

Graphic Arts: beginning, advanced

Rotary type; constant temperature; 12" x 18" chrome plated surface; 110V. Three wire cord and plug.

**1395 Duplicating Machine, Spirit**

Graphic Arts: advanced

Maximum sheet size 8 1/2" x 14"; electrically operated; 110V; 250 sheet feed capacity.

**1400 Duplicating Machine, Stencil**

Graphic Arts: advanced

Paper size 8½" x 14" maximum; electrically operated; 110V; 90 copies per minute; with counter.

**1405 Dust Collection System**

Woodworking: beginning, advanced

Beginning: Minimum capacity of 500 C.F.M., outside vented, self-contained for installation within laboratory. Minimum motor H.P. of 1/3.

Two storage drums with "Y" diverting duct arrangement.

Advanced: Self-contained unit consisting of a medium efficiency low pressure drop centrifugal precleaner and a Dynamic Precipitator of the combined exhaustor and dust separator type driven by a 10 HP totally enclosed ball bearing 1800 RPM motor and base for 220/60/3 service. Assembly to be Type D Roto-Clone with Skimmer Precleaner including combination dust storage hoppers. Capacity: not less than 4600 cu. ft. of free air per minute against not less than 6.0 inches water gauge total external pressure when operated at approximately 1000 RPM under which conditions the total power required shall not exceed 8.4 brake horsepower. Ducts from fan to equipment shall be built on the site.

**1410 Electricity Demonstration Panel, Teacher's**

General Shop

Designed for use by instructors in lecture demonstrations or by students in performing laboratory experiments; panels or boards each covering one of wide range of subjects (i.e. magnetism, Ohm's law, series and parallel circuits, etc.) providing a series of experiments to demonstrate the subject.

**1415 Electricity Training Panel, Student's**

General Shop

For use by students conducting laboratory experiments; components complement those used in instructor's panel.

**1420 Electronics Demonstration Panel, Teacher's**

General Shop

Designed for use by instructors in lecture demonstrations or by students in performing laboratory experiments; panel or board each covering one of wide range of subjects (i.e. inductance transistor oscillator, vacuum tube receivers, etc.) providing a series of experiments to demonstrate the subject.

**1425 Electronics Training Panel, Student's**

General Shop

For use by students conducting laboratory experiments; components complement those used in instructor's panel.

**1430 Electroplating Unit**

Metalworking: beginning, advanced

50 amps; 0-9 volts.

- 1435 Engine, Automobile**  
 Auto and Power Mechanics: beginning, advanced  
 Used overhead valve, 6-cylinder internal combustion engine; with transmission and clutch in running condition.
- 1440 Engine, Diesel**  
 Auto and Power Mechanics: beginning, advanced  
 Small, 100 HP or less; 4-cylinder; 2-cycle
- 1445 Engine, Outboard motor**  
 Auto and Power Mechanics: beginning, advanced  
 Local purchase.
- 1450 Engine, Rocket (small or model)**  
 Auto and Power Mechanics: advanced
- 1455 Engine, Small (2-cycle)**  
 Auto and Power Mechanics: beginning, advanced  
 General Shop  
 Single cylinder; 2-cycle; 2.5 HP; air cooled; vertical shaft; cast iron block (custom) or aluminum alternate.
- 1460 Engine, Small (4-cycle)**  
 Auto and Power Mechanics: beginning, advanced  
 General Shop  
 Single cylinder; 4-cycle; air cooled; horizontal shaft; cast iron or aluminum block; heavy flywheel; vacu-jet carburation.
- 1465 Engine, Steam (model)**  
 Auto and Power Mechanics: advanced  
 Model of typical mill engine with boiler; engine is 8½"L, 7 lbs., with stroke of 1¼", bore of ⅝"; boiler has working pressure of 60 lbs., brazed copper drum with 2 circulating tubes and superheater, cast iron front and back plates, asbestos lining, water gauge, safety valve and steam valve.
- 1470 Engine, Turbine (small)**  
 Auto and Power Mechanics: beginning, advanced
- 1475 Enlarger, Photographic**  
 Graphic Arts: beginning, advanced  
 Condenser model for negative size 4" x 5" and smaller. Condenser system should be variable; filter drawer provision; lens and lens mounts for 135mm, 90mm, 50mm; negative carriers for 4" x 5", 2¼" x 3¼", 120 film and 35mm film.
- 1480 Eraser Shields**  
 Drafting: beginning, advanced  
 General Shop  
 Stainless steel; polished finish; with 20 various openings; free from burrs and sharp edges; size 2½" x 3¾" x .005"T.

**1485 Erasing, Machine, Electric**

Drafting: advanced

110-115 volt; 2400-3400 RPM erasing speed; AC electric erasing machine with 84" cord, off-on switch; retractable hanger with assortment of 4 eraser refills.

**1490 Exposure Frame**

Graphic Arts: advanced

14" x 19" capacity; photo-flood bulb; automatic timer; 110V.

**1495 Extension Cord**

Auto and Power Mechanics: beginning, advanced

Ceramics: beginning, advanced

Drafting: beginning, advanced

Electricity-Electronics: beginning, advanced

Elementary

General Shop

Graphic Arts: beginning, advanced

Metalworking: beginning, advanced

Plastics: beginning, advanced

Woodworking: beginning, advanced

Heavy duty; grounded; 25'.

**Extension, Socket wrench, Flexible handle (see: Wrench, Socket, Flex handle #5375-#5380)**

**Extension, Socket wrench handle (see: Wrench, Socket, Handle extension #5385-#5410)**

**1500 Extractor, Screw (set)**

Auto and Power Mechanics: beginning, advanced

General Shop

Metalworking: beginning, advanced

Plastics: beginning, advanced

Set of 6, #1 to #6. Tapered ends with left hand twist which draws extractor into stud as it is removed; square shaft permitting the use of a wrench; one each 1/8", 9/64", 7/32", 5/16" screw extractors; kit bag.

**1505 Extruder, Large**

Plastics: advanced

Minimum capacity 2"; take-off and cooling equipment; dies for sheeting and other shapes; blown film tower; 220-440V, 3-phase operation.

**1510 Extruder, Medium**

Plastics: beginning, advanced

Capacity 1" to 1 1/2"; take-off and cooling equipment; dies for sheeting and other shapes; 220-440V, 3-phase operation.

**1515 Extruder, Small**

Plastics: beginning, advanced

Capacity  $\frac{3}{4}$ "; take-off and cooling equipment; dies for sheeting and other shapes; 110-220V, single-phase operation.

**1520 Extrusion, Machine, Auger type**

Ceramics: beginning, advanced

De-airing extruder, auger-type; easily dismantled and cleaned; special dies are available.

**1525 Eyelet Setter**

Elementary

General Shop

Knurled handle; for setting eyelets in leather.

**1530 Ferrotyp~~e~~ Plate**

Graphic Arts: beginning, advanced

Chrome plated; 10" x 14".

**1535 Fid**

General Shop

Hardwood handle; 2 $\frac{1}{4}$ "L blade; for enlarging punch hole.

**1540 Files (assorted sizes, shapes, and cuts, with handles, as specified)**

Auto and Power Mechanics: beginning, advanced

Electricity-Electronics: beginning, advanced

Elementary

General Shop

Graphic Arts: beginning, advanced

Metalworking: beginning, advanced

Plastics: beginning, advanced

Woodworking: beginning, advanced

<u>Area</u>	<u>Quantity</u>	<u>Length</u>	<u>Name or Shape</u>	<u>Spacing</u>
Auto and Power Mechanics	2	10"	Half-round	Smooth
	6	10"	Half-round	Bastard
	3	10"	Lathe (Long Angle, Safe Edge)	
	3	10"	Brass (Flat)	
	2	10" x $\frac{3}{8}$ "	Round	Bastard
	2	8" x $\frac{1}{4}$ "	Round	Bastard
	2	10" x $\frac{3}{8}$ "	Square	Bastard
	3	6"	Slim Taper (Triangular)	
	2	8"	Warding	
	3	10"	Flat	Second-Cut Bastard

	6	10"	Half-round	Bastard
	6	10"	Round	Bastard
	3	10"	Aluminum (Flat)	
Electricity-Electronics	4	6"	Mill	Second-Cut
	4	6"	Half-round	Second-Cut
Elementary	12	8"	Cabinet (Half-round)	
	6	8"	Mill	Second-Cut
	6	8"	Square	Second-Cut
	6	8"	Round	Second-Cut
General Shop (general metals)	2	8"	Flat	Bastard
	2	10"	Double-Cut Flat	Bastard
	2	6"	Double-Cut Half-round	Bastard
	2	8"	Half-round	Bastard
	2	10"	Half-round	Bastard
	2	8"	Half-round	Second-Cut
	2	10"	Half-round	Second-Cut
	2	8"	Mill	Second-Cut
	2	10"	Mill	Second-Cut
	2	8"	Rat-tail (Round, Slim)	Second-Cut
	2	8"	Round	Second-Cut
	2	10"	Round	Second-Cut
	2	6"	Slim, Taper Single-Cut	
	2	8"	Square	Second-Cut
	2	8"	Square	Smooth
	2	10"	Vixen (Half-round)	
	2	8"	Wood (Flat)	Coarse
	2	10"	Wood (Flat)	Coarse
	2	8"	Cabinet (Half-round)	
	2	10"	Cabinet (Half-round)	
	2	8"	Cabinet	Bastard
	2	10"	Rasp (Half-round)	Bastard
	2	6"	Cabinet Slim, Taper Single-Cut	
Metalworking	4	8"	Flat	Bastard
	4	10"	Double-Cut Flat	
	4	10"	Double-Cut	Bastard

	6	4"	Mill	Smooth
	6	6"	Mill	Smooth
	6	8"	Mill	
	2	6"	Round	Second-Cut
	6	8"	Round	Bastard
	4	8"	Three-Square (Triangular)	Second-Cut
Plastics	6	10"	Mill	Second-Cut
	6	10"	Mill	Bastard
	6	10"	Half-round	Second-Cut
	6	10"	Half-round	Bastard
	6	8"	Round	Second-Cut
	6	8"	Round	Bastard
	6	6"	Warding	
	3	10"	Cabinet	Second-Cut
			Rasp	
Woodworking	3	7"	Slim, Taper (Triangular)	
	6	10"	Single Half-round	
	6	10"	Rasp Round	
	12	10"	Rasp Cabinet Double-Cut (Half-round)	

**1545 File, Auger bit**  
 General Shop  
 Woodworking: beginning, advanced  
 7-inch; standard cut.

**File, Auto body (set) (see: Body-Fender Tools #0395)**

**1550 File Card and brush**  
 Auto and Power Mechanics: beginning, advanced  
 Electricity-Electronics: beginning, advanced  
 Elementary  
 General Shop  
 Graphic Arts: beginning, advanced  
 Metalworking: beginning, advanced  
 Plastics: beginning, advanced  
 Woodworking: beginning, advanced  
 9½"L; brush 1½" x 5".

**1555 File, Drafting**  
 Drafting: advanced  
 Flat cap; two 5-drawer units; inside dimensions to accommodate 36" x 48" drawing sheets; flush base with partitions between drawers.

**File Handles (see: Files, #1540. Sizes and number determined by quantity and size of file specified)**

- 1560 File, Contact point (ignition)**  
Auto and Power Mechanics: beginning, advanced  
Double-cut; 2½" blade.
- 1565 File, Jeweler's (set)**  
Electricity-Electronics: beginning, advanced  
Assorted shapes; 4" to 6".
- 1570 File, Needle (set)**  
Electricity-Electronics: beginning, advanced  
Elementary  
Plastics: beginning, advanced  
Set of 12; 5½"L; assorted shapes; (1 each: Marking, Joint, Barrette, Slitting, Square, Three-square, Flat, Oval, Knife, Round, Half-round, Equaling).
- File, Rasp (see: Files # 1540)**
- 1575 File, Swiss pattern (set)**  
General Shop  
12 assorted.
- File, Wood (see: Files # 1540)**
- 1580 Filter, Photo (set)**  
Graphic Arts: advanced  
For variable contrast photographic paper; should include filters for equivalent paper grades of 1 through 4 by half steps.
- 1585 Filter Press (laboratory model)**  
Ceramics: advanced  
Fitted for filling by air pressure from air tank. Has 10 chambers 9" square, will deliver 30 lbs. of clay per pressing.
- 1590 Finishing Rubber**  
Ceramics: beginning, advanced  
Kidney shapes of pliable rubber; for smoothing and finishing pottery; for screening glaze; sizes # 1, 2½" x 3½"; size # 2, 2" x 4¼".
- 1592 Fire Blanket**  
Auto and Power Mechanics: beginning, advanced  
Ceramics: beginning, advanced  
Electricity-Electronics: beginning, advanced  
Elementary  
General Shop  
Graphic Arts: beginning, advanced  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
Woodworking: beginning, advanced

**1593 Fire Extinguisher**

Auto and Power Mechanics: beginning, advanced

Ceramics: beginning, advanced

Drafting: beginning, advanced

Electricity-Electronics: beginning, advanced

Elementary

General Shop

Graphic Arts: beginning, advanced

Metalworking: beginning, advanced

Plastics: beginning, advanced

Woodworking: beginning, advanced

5 lb. capacity UL rated 8 BC—used on all B and C fires. Acceptable for grease electrical fires, and chemical fires.

(First aid—For Class A, B, and C fires.) Carbon dioxide for electric, grease and flammable liquid fires; 5 lb., 10 lb., 15 lb., or 20 lb. capacity; 5 lb. size UL rated 4 BC; complete with wall hanger. Pressurized water—2½ gal.; UL rated 2A; air-pressurized to 100 p.s.i.; stainless steel shell; pressure gauge; squeeze grip release handle; needs no annual recharge service; 24¾" H x 7" diameter; with charge to prevent freezing; complete with hanger. Dry chemical—2¾ lb.; UL rated 6 BC; pressure gauge at top shows action readiness; one hand operation; protection against all B & C fires; Coast Guard approved; complete with bracket. Dry chemical—5 lb. capacity; UL rated 8 BC; for electric and flammable liquid fires; complete with wall hanger.

**1595 Firing Racks**

Ceramics: beginning, advanced

Heat resistant; 4 mesh ni-chrome; for transporting work in and out of kiln; all racks are supplied flat; 3 sizes: 3" x 3", 6" x 6", 12" x 12".

**1600 First Aid Kit**

Auto and Power Mechanics: beginning, advanced

Ceramics: beginning, advanced

Drafting: beginning, advanced

Electricity-Electronics: beginning, advanced

Elementary

General Shop

Graphic Arts: beginning, advanced

Metalworking: beginning, advanced

Plastics: beginning, advanced

Woodworking: beginning, advanced

To be purchased where state laws allow. Standard insurance kit recommended including common supplies and First Aid Manual. Local and state regulations should be checked.

- 1605 Flaring Tool (set)**  
Auto and Power Mechanics: advanced  
General Shop  
Range 3/16" to 5/8"; tapered hardened cone riding on ball bearing.
- 1610 Flask, Foundry (large)**  
Metalworking: beginning, advanced  
12" x 18"; cope 4" deep, drag 4" deep.
- 1615 Flask, Foundry (small)**  
General Shop  
Metalworking: beginning, advanced  
Plastics: advanced  
10" x 12"; cope 3" deep, drag 3" deep.
- 1620 Flocking Gun**  
Elementary  
Spray gun.
- 1625 Flywheel Holder**  
Auto and Power Mechanics: beginning, advanced  
General Shop  
For small gas engines.
- 1630 Folding Machine**  
Graphic Arts: advanced  
Paper size 2 1/4" x 4" to 9 1/2" x 15"; complete with slitter, scorer and perforator.
- 1635 Forge, Gas**  
General Shop  
Metalworking: advanced  
With blower; swinging adjustable refractory lid; solenoid safety valve; limiting orifice.
- 1640 Fork, Enameling**  
General Shop  
17 1/2"L.
- 1645 Fork, Firing**  
Ceramics: beginning, advanced  
Sturdy heavy gauge firing fork with wooden handle. 20"L; wt. 6 oz.
- 1650 Forming Roll, Slip**  
General Shop  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
30"; capacity mild steel: 22 gauge.

- 1655 Fountain Pen (technical set)**  
Drafting: advanced  
General Shop  
Non-clogging; seven point sections, sizes 00, 0, 1, 2, 2½, 3, 4; re-usable ink cartridges; with holder, case, and ink filler bottle; possible to disassemble for cleaning.
- 1660 Frame, Printing**  
Drafting: advanced  
For exposures by sunlight; to accommodate 17" x 22" drawings.
- 1665 Funnel**  
Woodworking: beginning, advanced
- 1670 Funnel, Longspout, Automatic transmission**  
Auto and Power Mechanics: advanced  
Spring loaded button to control fluid flow; punch spout for opening and pouring oil cans; 23½"L; 4½" flexible cable hose.
- 1675 Furnace, Bench**  
General Shop  
Metalworking: beginning, advanced  
Gas; two-burner; refractory lined hood; pilot light; shut-off valve; front baffle.
- 1680 Furnace, Crucible**  
Ceramics: beginning, advanced  
General Shop  
Metalworking: beginning, advanced  
Plastics: advanced  
Maximum capacity # 16 crucible; temperature range 1200-2300°F; with blower, spark ignition, gas pressure regulator, safety gas-check valve and limiting orifice.
- 1685 Furnace, Heat treating**  
Metalworking: beginning, advanced  
Beginning: Firebox 5"H x 7¾"W x 13"L; temperature range 1300 to 2400° F; blower; pressure regulator; limiting gas orifice; pilot; gas-check valve.  
Advanced: Firebox 7"H x 13"W x 16½"L; temperature range 1300° to 2350° F; blower; pressure regulator; limiting gas orifice; pilot; gas-check valve.
- 1690 Furniture, Wood, Fonts**  
General Shop  
Graphic Arts: beginning, advanced  
Standard labor-saving font for lock-up in cabinet; sizes should include widths 2-3-4-5-6-8-10 picas; lengths 10-15-20-25-30-40-50-60 picas.

- 1695 Galley (10" x 16")**  
 Graphic Arts: advanced  
 Uniform gauge; rustproof; welded corners.
- 1700 Galley (8 $\frac{1}{4}$ " x 13")**  
 General Shop  
 Graphic Arts: advanced  
 Uniform gauge; rustproof; welded corners.
- 1705 Galvanometer**  
 Auto and Power Mechanics: advanced  
 DC; 50-0-50 scale; 2 $\frac{1}{2}$ " or 3 $\frac{1}{2}$ " model; sensitivity microamperes  
 500-0-500 or 75-0-75; resistance 46 or 2000 ohms.
- 1710 Gauge, Auger bit**  
 Ceramics: beginning, advanced  
 Electricity-Electronics: beginning, advanced  
 Elementary  
 General Shop  
 Graphic Arts: beginning, advanced  
 Plastics: beginning, advanced  
 Woodworking: beginning, advanced  
 For gauging hole depth.
- 1715 Gauge, Belt Tension**  
 Auto and Power Mechanics: beginning, advanced  
 Die cast frame; easy to read tension gauge dial 40-135 lbs.
- 1720 Gauge, Carburetor (set)**  
 Auto and Power Mechanics: advanced
- 1725 Gauge, Center**  
 Auto and Power Mechanics: beginning, advanced  
 General Shop  
 Metalworking: beginning, advanced  
 For use with screw-cutting lathe tools. Spring tempered.
- 1730 Gauge, Cylinder pressure**  
 Auto and Power Mechanics: beginning, advanced  
 General Shop  
Auto and Power Mechanics: Universal compression tester adaptable  
 for hard to reach places; gauge range 0-300 p.s.i.; quick disconnect  
 fittings; complete with hose.  
General Shop: Compression tester; gauge range 0-300 p.s.i.; 360°  
 rotating stem.
- 1735 Gauge, Depth rule**  
 General Shop

- 1740 Gauge, Draw**  
 Elementary  
 Hollow handle; for cutting leather strips.
- 1745 Gauge, Drill, Fractions**  
 Auto and Power Mechanics: beginning, advanced  
 Woodworking: beginning, advanced  
 Jobber's drill plate; range 1/16" to 1/2" by 64ths; case hardened steel.
- 1750 Gauge, Drill, Number**  
 Auto and Power Mechanics: beginning, advanced  
 Range: 80—0; case hardened steel.
- 1755 Gauge, Drill point**  
 Metalworking: advanced  
 Consisting of a six-inch hook rule graduated in 8ths, 16ths, 32nds, and 64ths, in combination with a sliding head which can be positioned on rule and locked; head beveled to 59°; head graduated in 32nds along 59° face.
- 1760 Gauge, Ignition (set)**  
 Auto and Power Mechanics: beginning, advanced  
 General Shop
- 1765 Gauge, Line (12")**  
 General Shop  
 Graphic Arts: beginning, advanced  
 Stainless steel; etched 6 and 12 point graduations on one side; agate and inches on other side.
- 1770 Gauge, Line (18")**  
 Graphic Arts: beginning, advanced  
 Brass; 6 and 12 point one side; agate and inches on other side.
- 1775 Gauge, Marking**  
 General Shop  
 Plastics: beginning, advanced  
 Woodworking: beginning, advanced
- 1780 Gauge, Marking (double bar)**  
 Woodworking: beginning, advanced
- 1785 Gauge, Micrometer, Depth**  
 Metalworking: advanced  
 Calibrated thousandths; 0 to 3".
- 1790 Gauge, Pin (sets)**  
 General Shop  
 Graphic Arts: beginning, advanced  
 Spring tongue.

- 1795 Gauge, Radius and fillet**  
 Metalworking: advanced  
 With radii from 1/32" to 17/32" by 64ths.
- 1800 Gauge, Screw pitch**  
 Auto and Power Mechanics: advanced  
 Drafting: advanced  
 Electricity-Electronics: beginning, advanced  
 General Shop  
 Metalworking: beginning, advanced  
 Woodworking: beginning, advanced  
 With 22 pitches from 9 to 40.
- 1805 Gauge, Small hole**  
 Metalworking: advanced  
 Set of four: from 1/8" to 1/2".
- 1810 Gauge, Spark plug**  
 Auto and Power Mechanics: beginning, advanced  
 General Shop  
 1 3/4" fingers; .010, .012, .013, .015, .018, .020, .022, .024, .026, .028, .030, .032, .035.
- 1815 Gauge, Spring tension**  
 Auto and Power Mechanics: beginning, advanced  
 One to be used in conjunction with a torque wrench; will test valve and clutch springs; one brake spring tester.
- 1820 Gauge, Surface**  
 Auto and Power Mechanics: advanced  
 Metalworking: advanced  
 Base 3 1/8" x 2 1/2"; hardened; two spindles, 9" and 12"; spindle swivels to any position from vertical to horizontal; with scriber.
- 1825 Gauge, Telescopic**  
 Metalworking: advanced  
 Set: 1/2" to 6".
- 1830 Gauge, Thickness ("feeler")**  
 Auto and Power Mechanics: beginning, advanced  
 Electricity-Electronics: beginning, advanced  
 General Shop  
 Minimum 6 leaf; 1/2" x 2 1/2"; .0015 to .015.
- 1835 Gauge, Tire pressure**  
 Auto and Power Mechanics: beginning, advanced  
 Easy to read; pencil type; calibrated 4 to 50 lbs. in one lb. units.

- 1840 Gauge, Type high**  
Graphic Arts: beginning, advanced  
Standard for letterpress printing (0.918").
- 1845 Gauge, Vacuum and low pressure**  
Auto and Power Mechanics: beginning, advanced  
Vacuum seal up to 28"H; pressure scale up to 10 p.s.i.; plus 11  
adaptors; in metal box.
- 1850 Gauge, Vernier height**  
Metalworking: advanced  
Minimum 0 to 12"; offset arm to permit measurement from 0 over full  
range; base slotted to provide clearance for arm and to increase  
stability.
- 1855 Gauge, Wire and sheet metal (American)**  
Auto and Power Mechanics: beginning, advanced  
Ceramics: beginning, advanced  
Drafting: beginning, advanced  
Electricity-Electronics: beginning, advanced  
Elementary  
General Shop  
Graphic Arts: beginning, advanced  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
Woodworking: beginning, advanced  
American Standard; sizes 0 to 36; with decimal for each number  
stamped on back.
- 1860 Gauge, Wire and sheet metal (U.S.S.)**  
Auto and Power Mechanics: beginning, advanced  
Ceramics: beginning, advanced  
Drafting: beginning, advanced  
Electricity-Electronics: beginning, advanced  
Elementary  
General Shop  
Graphic Arts: beginning, advanced  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
Woodworking: beginning, advanced  
U.S. Standard; sizes 0 to 36; with decimal for each number stamped  
on back.
- 1865 Gear Puller**  
General Shop  
For small gas engines.

- 1870 Geometric Shapes (set)**  
 Drafting: advanced  
 Variety of plane and solid geometric figures; of hardwood; in suitable container.
- 1880 Gloves, Asbestos (pair)**  
 Elementary  
 General Shop  
 Metalworking: beginning, advanced  
 Unlined; 14"L; medium size.
- 1885 Gloves, Leather (pair)**  
 Auto and Power Mechanics: advanced  
 General Shop  
 Metalworking: beginning, advanced  
 Woodworking: beginning, advanced  
 Cowhide; for welders.
- 1890 Gloves, Thin rubber (pair)**  
 Elementary  
 Thin latex.
- 1892 Gloves, Thick rubber (pair)**  
 Graphic Arts: beginning, advanced  
 Metalworking: beginning, advanced
- 1895 Glue Pot**  
 Graphic Arts: beginning, advanced  
 110V; automatic temperature control; 1 qt. copper insert.
- 1900 Goggles, Spectacles, Clear observation**  
 Auto and Power Mechanics: beginning, advanced  
 Ceramics: beginning, advanced  
 Electricity-Electronics: beginning, advanced  
 Elementary  
 General Shop  
 Graphic Arts: beginning, advanced  
 Metalworking: beginning, advanced  
 Plastics: beginning, advanced  
 Woodworking: beginning, advanced  
 Must meet ASA Z2.1 1959 code; side shields included.
- 1905 Goggles, Gas welding**  
 Auto and Power Mechanics: beginning, advanced  
 General Shop  
 Metalworking: beginning, advanced  
 (Must conform to ASA standards.)

- 1910 Goggles, Melter's**  
 General Shop  
 Composition cups with indirect ventilation; adjustable chain bridge; 1-piece adjustable elastic headband; with melter blue lens, or clear lens. (Approved and exceed ASA Spec Z2.1-1959.)
- 1915 Graduate Cylinder (100cc)**  
 Ceramics: beginning, advanced  
 Plastics: beginning, advanced
- 1920 Graduate Cylinder (500cc)**  
 Ceramics: beginning, advanced  
 Plastics: beginning, advanced
- 1925 Graduate, Darkroom**  
 Graphic Arts: beginning, advanced  
 Conical type; 16 oz. capacity; graduated in both English and metric systems.
- 1930 Grease Gun**  
 Auto and Power Mechanics: beginning, advanced  
 Graphic Arts: beginning, advanced  
 Woodworking: beginning, advanced  
 Hand operated; loaded through filler valve or directly into barrel; corrosion resistant finish; approximately 15"L, with plunger; 1 lb. capacity; with hydraulic fitting; flex hose.
- 1935 Grease Gun, Chassis**  
 Auto and Power Mechanics: advanced  
 (Chassis Lubricator) Including 45:1 ratio pump, 6', 1/4" 1D pressure hose; "Z" type swivel pressure regulator valve; 360° swivel adapter; air line coupler; foilow plate dolly assembly; baked enamel finish; will dispense from 25, 35, and 50 lb. pails.
- 1940 Grease Gun, Extended interval**  
 Auto and Power Mechanics: advanced  
 Grease gun with adapters for late model cars designed for extended interval servicing; with 12" hose.
- 1945 Grease Gun, Gear Lube**  
 Auto and Power Mechanics. advanced  
 Hand operated fast acting pump delivering 3 oz. per stroke; 8 pint non-totalizing meter; 6', 1/4" 1D year lube hose and non-drip nozzle; portable caster base and shield pail cover.
- 1950 Grease Gun, Suction, General purpose**  
 Auto and Power Mechanics: beginning, advanced  
 For servicing oil filters, gear cases, transmissions, differentials, etc.; capacity 16 oz.; impervious rubber follower; zinc plated with flexible metal extension; 24"L.

**1955 Grinder, Belt**

Plastics: beginning, advanced

1½" W belt; 1 horsepower, 220V, 3-phase; magnetic switch guards; work rest. (Must conform to ASA standards.)

**Grinder, Bench (see: Grinder, Edge tool (bench) #1965)**

**1960 Grinder-Buffer, Bench, Combination**

Ceramics: beginning, advanced

Elementary

¼ HP; ball-bearing; 1725 RPM; 115V, AC; manual starter with overload protection, 8 #2 wire plus ground cord; double extension shaft for 6" grinder and rest and buffing attachments for polishing, complete with polishing kit; complete with switch, motor cord, and plug. (Must conform to ASA standards.)

**1965 Grinder, Edge tool (bench)**

Auto and Power Mechanics: beginning, advanced

Elementary

Plastics: beginning, advanced

Woodworking: beginning, advanced

1" x 7" model including one fine-grit and one coarse wheel; water pot; twin light safety shields; wheel guards; adjustable spark deflectors; tool rests; mounted switch with 3-prong plug; motor ½ HP, 60 cycles, 110V, with overload protection. Three-wire cord and plug. (Must conform to ASA standards.)

**1970 Grinder, Flexible shaft**

Auto and Power Mechanics: advanced

(Must conform to ASA standards.)

**1975 Grinder, Heavy duty pedestal**

Metalworking: advanced

12"; with self-contained dust collector; with tool tray and water pot, and wheels; 2 HP motor, 220V, 3-phase, 60 cycle; magnetic starter; grinder and fan motors to operate simultaneously. (Must conform to ASA standards.)

**1980 Grinder, Oil tool**

General Shop

Woodworking: beginning, advanced

Floor model complete with mounted switch, two 1½" x 6" oilstone wheels, one fine and one coarse, and a ½" x 8" emery dry wheel with tool rest and eye shield, grooved table with adjustable tool holder, two coolant tanks with flow controls. Motor ¼ HP, 110V, 60 cycles, single-phase, complete with conductor cord and plug. (Must conform to ASA standards.)

**1985 Grinder, Pedestal**

Auto and Power Mechanics: advanced

Electricity-Electronics: beginning, advanced

**General Shop**

**Metalworking: beginning, advanced**

1" x 7" model including one fine-grit and one coarse wheel; water pot; twin light safety shields; wheel guards; adjustable spark deflectors; tool rests; mounted switch with 3-prong plug; motor 1/2 HP, 60 cycles, 110V, with overload protection mounted on cast iron floor pedestal. Three wire cord and plug. (Must conform to ASA standards.)

**1990 Grinder, Surface**

**Metalworking, advanced**

Minimum table working surface 13 1/2" x 6"; minimum longitudinal feed 14"; minimum cross feed 7"; work height 0" to 11 1/2"; vertical feed .0001"; cross feed .001"; 7" wheel; spindle motor 1 HP, 3450 RPM; hydraulic pump motor 1/3 HP; diamond dresser; table lock and stops; collet; wheel puller and spanner wrench. (Must conform to ASA standards.)

**1995 Grinder, Valve (set)**

**Auto and Power Mechanics: advanced**

**General Shop**

(Valve Refacer) For wet grinding valves 9/32-9/16 diameter stems; 1/3 HP, 115V, 60 cycle motor; position stop angle settings; valve stem and rocker arm grinding attachment; with cabinet and assortment of valve seat grinding stones, stove sleeves, pilots, etc.; portable unit. (Must conform to ASA standards.)

**2000 Groover, Hand (set)**

**General Shop**

**Metalworking: beginning, advanced**

Set of 3; sizes: 0, 2, 4.

**2005 Growler, Armature testing**

**Auto and Power Mechanics: beginning, advanced**

120V; 60 cycle; 2 scale meter; 2 ranges (0-5 amps; 0-25 amps); pilot lights test prods on separate transformers.

**2010 Gun, Engine cleaning**

**Auto and Power Mechanic: beginning, advanced**

(Hydro-Air Pressure Washer) Gun type with screw type adjustment; connects to air and water supply; rubber grip to protect from hot water; one siphoning attachment; extensions; one flush adapter tapered cone to fit openings 3/4" to 2 1/2" diameter openings.

**Hammer, Auto body (set) (see: Body-Fender Tools #0395)**

**2015 Hammer, Ball peen (2 oz.)**

**Elementary**

Polished face and peen.

- 2020 Hammer, Ball peen (4 oz.)**  
 Auto and Power Mechanics: beginning, advanced  
 Elementary  
 General Shop  
 Polished face and peen.
- 2025 Hammer, Ball peen (8 oz.)**  
 Auto and Power Mechanics: beginning, advanced  
 Metalworking: beginning, advanced  
 Polished face and peen.
- 2030 Hammer, Ball peen (12 oz.)**  
 Electricity-Electronics: beginning, advanced  
 General Shop  
 Metalworking: beginning, advanced  
 Plastics: beginning, advanced  
 Polished face and peen.
- 2035 Hammer, Ball peen (16 oz.)**  
 Auto and Power Mechanics: beginning, advanced  
 Electricity-Electronics: beginning, advanced  
 General Shop  
 Metalworking: beginning, advanced  
 Polished face and peen.
- 2040 Hammer, Ball peen (30 oz.)**  
 Metalworking: advanced  
 Polished face and peen.
- 2045 Hammer, Ball peen (32 oz.)**  
 Metalworking: advanced  
 Polished face and peen.
- Hammer, Blacksmith's hand (see: Hammer, Engineer's #2090, #2095)**
- 2050 Hammer, Bookbinder's backing**  
 Graphic Arts: beginning, advanced  
 1 lb.; 12 oz. head; wooden handle.
- 2055 Hammer, Brass head**  
 Auto and Power Mechanics: beginning, advanced  
 1 lb.; 3"L; 1 1/4" diameter.
- Hammer, Bumping (see: Body-Fender Tools #0395)**
- 2060 Hammer, Chasing**  
 Auto and Power Mechanics: advanced  
 1"; with handle attached.

- 2065 Hammer, Chipping**  
 Auto and Power Mechanics: advanced  
 Elementary  
 General Shop  
 Metalworking: advanced
- 2070 Hammer, Claw (7 oz.)**  
 Elementary  
 General Shop  
 Woodworking: beginning, advanced  
 Curved claw; bell face; hickory handle.
- 2075 Hammer, Claw (10 oz.)**  
 Elementary  
 Curved claw; bell face; hickory handle.
- 2080 Hammer, Claw (13 oz)**  
 Elementary  
 General Shop  
 Woodworking: beginning, advanced  
 Curved claw; bell face; hickory handle.
- 2085 Hammer, Claw (16 oz.)**  
 Auto and Power Mechanics: beginning, advanced  
 Drafting: beginning, advanced  
 Electricity-Electronics: beginning, advanced  
 General Shop  
 Graphic Arts: beginning, advanced  
 Plastics: beginning, advanced  
 Woodworking: beginning, advanced  
 Curved claw; bell face; hickory handle.
- 2090 Hammer, Engineer's (40 oz.)**  
 Auto and Power Mechanics: beginning, advanced  
 General Shop  
 Metalworking: beginning, advanced  
 Cross peen; fully polished.
- 2095 Hammer, Engineer's (48 oz.)**  
 Metalworking: beginning, advanced  
 Cross peen; fully polished.
- 2100 Hammer, Forming**  
 General Shop  
 Assorted shapes; medium size.
- 2105 Hammer, Lead**  
 Auto and Power Mechanics: beginning, advanced  
 3 lb.; lead head; steel shank.

- 2107 Hammer, Magnetic**  
Woodworking: beginning, advanced  
Standard upholsterer's.
- 2110 Hammer, Raising**  
General Shop  
Polished faces.
- 2115 Hammer, Riveting, Machinist's**  
General Shop  
Metalworking: beginning, advanced  
Fully polished.
- 2120 Hammer, Setting**  
General Shop  
12 oz.
- 2125 Hammer, Sledge**  
Auto and Power Mechanics: advanced  
5 lb.; medium length handle; seasoned hickory handle.
- 2130 Hammer, Soft face (4 oz.)**  
General Shop  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
Replaceable plastic faces.
- 2135 Hammer, Soft face**  
Auto and Power Mechanics: beginning, advanced  
General Shop  
With replaceable plastic faces.
- 2140 Helmet, Welding arc (hand type)**  
Auto and Power Mechanics: beginning, advanced  
General Shop  
Metalworking: advanced  
Plastics: advanced  
With # 10 lens and cover. (Must conform to ASA standards.)
- 2145 Helmet, Welding arc (head type)**  
Auto and Power Mechanics: beginning, advanced  
General Shop  
Metalworking: beginning, advanced  
Plastics: advanced  
Molded fiberglass reinforced helmet; impervious to moisture and warping; removable nylon ratchet headgear; rounded underchin; lift-type front; shade #10. (Approved and exceed ASA Spec Z2.1-1959.)

**2150 Hoist, Double post**

Auto and Power Mechanics: beginning, advanced

Pistons in fixed position with minimum diameter of 7½"; pistons operated independently or in unison; fully hydraulic air-operated with low oil control for safety; flush floor model; height of rise 70"; capacity 8000 lbs. at 120 lbs. per sq. in. air pressure; controls mountable clear of hoist area; capable of handling passenger cars, foreign and domestic, as well as some small trucks; to be installed by supplier; all underground piping to be appropriately wrapped.

**2155 Hoist, Single post**

Auto and Power Mechanics: beginning, advanced

Piston diameter 10½"; semi-hydraulic air-operated with low oil control for safety; height of rise 66"; controls mountable clear of hoist area; capable of handling passenger cars foreign and domestic as well as some small trucks; to be installed by supplier; all underground piping to be appropriately wrapped.

**2160 Hone, Brake cylinder (set)**

Auto and Power Mechanics: beginning, advanced

Stones on free swinging self centering shoes; tension controlling screw; for ½" to 2" diameter cylinders; 2 medium grit stones; 2 fine grit stones.

**2165 Hone, Cylinder (to 7")**

Auto and Power Mechanics: advanced

(Glaze Breaker) range 2"-5¼" diameter; with 2—3" medium grit stones and felt wiper pad.

**2170 Hone, Pin**

Auto and Power Mechanics: advanced

**2175 Hose, Air**

Auto and Power Mechanics: beginning, advanced

Woodworking: beginning, advanced

25' x 14"; heavy duty; 2-braid carcass; flexible.

**2180 Hose, Exhaust, Garage**

Auto and Power Mechanics: beginning, advanced

100' only; 2½" diameter; 100% neoprene rubber; rugged spiral construction; withstanding temperatures -40 to +325 degrees Fahrenheit.

**2185 Hose, Water**

Auto and Power Mechanics: beginning, advanced

50'; garden type; heavy duty; 2-ply; with end fittings.

**2190 Hot Plate, Electric**

Elementary

Graphic Arts: beginning, advanced

Woodworking: advanced  
100 V with thermostatic control switch.

**2195 Hydraulic Instruction Unit**

Auto and Power Mechanics: advanced

Bench 60" L x 23" D x 33" H, heavy steel top and frame with drain to rear, integral hydraulic reservoir, leveling screws, fitted interior, masterkeyed doors; instrument panel with 30 lb., 160 lb., and 400 lb. x 3 1/2" gauges, 30 second 1 revolution timer clock, toggle switch with pilot and duplex; pressure source with positive displacement pump, direct drive from 1/4 HP TEFC motor, filter, external relief valve, precision pressure control valve and 4 valve outlet manifold; component mounting; permanent plumbing of metal tubing and pipe; plumbing to be varied by students 1/4" and 3/8" plastic tubing with finger tightening fittings, color coded; power requirements: 120V 5A, with 3-wire cord and 6-rounded plug; 2—1 1/8" x 6" double acting cylinders; 1—1/2" x 3" double acting cylinder; weights, weight arm, and arm support; pressure switch; accumulator; 4-way manual valve; 2—unidirectional flow control valves; 3 wrenches; all necessary fittings, tubing, bolts, oil, etc.

**2200 Hydrometer**

Auto and Power Mechanics: beginning, advanced

(Anti-freeze Tester) Large colour coded charts, cooling capacity of all car models to date; self-calculating variety; rugged construction thermometer; able to test solutions up to 180° approximate; for all ethylene glycol and methanol types.

**Battery Testers—(see Tester, Battery cell—4815)**

**2205 Imposing Stone Table**

General Shop

Graphic Arts: beginning, advanced

General Shop: Top 31" x 39"; with cabinets below for 1 font of reglets, 1 font of furniture; storage unit for 8" x 12" and 10" x 15" chases; storage unit for 8 3/4" x 13" galleys; with drawer.

Graphic Arts: 27" x 39" (beginning); 31" x 39" (advanced); cast iron surface; furniture font; reglet font galleys.

**2210 Indicator, Dial test**

Auto and Power Mechanics: advanced

Metalworking: advanced

Auto and Power Mechanics: For cylinders; dial mounted on block that moves at right angles to the sled; sled to maintain in alignment with cylinder walls; sled is hardened and ground; adjustable handle; dial with locking mechanism, and non-breakable crystal; adjustable zero location by turning dial face; range 2 1/2" to 6", in graduations of .001"; dial reading 0-100, one revolution .100°.

Metalworking: Ratchet joint contact point; reversible action; range .030, adjustable dial.

**Iron, Soldering (see: Soldering copper, Electric #4295-#4325)**

- 2215 Jack Auto bumper (double-saddle type)**  
 Auto and Power Mechanics: beginning, advanced  
 Hydraulic; 24" travel; built-in lowering speed control valve; open; "V" shaped base; portable unit on wheels; capacity 4000 lbs.; lifting range 5 $\frac{7}{8}$ "-37"; horizontal arm (twin lift) spread 12"-45"; with extensions; universal bumper saddles. (Must conform to ASA standards.)
- 2220 Jack, Auto, Hydraulic floor type (1 $\frac{1}{2}$  ton)**  
 Auto and Power Mechanics: beginning, advanced  
 24" lift; 90° handle stroke; with safety lock, direct-action release control; built-in lowering speed control valve; swivel lifting cap. (Must conform to ASA standards.)
- 2225 Jack, Auto, Hydraulic (standard type) (1 $\frac{1}{2}$  ton)**  
 Auto and Power Mechanics: beginning, advanced  
 Woodworking: advanced  
 Wide base; self locking extension screw with serrated saddle; built-in lowering speed control valve; lifts 7" to 14 $\frac{1}{4}$ ". (Must conform to ASA standards.)
- 2230 Jack, Auto, Hydraulic (standard type) (2 ton)**  
 Auto and Power Mechanics: advanced  
 Strong handle socket; guard lugs to protect piston; self locking extension screw with serrated saddle; 23 $\frac{1}{2}$ " handle (two piece); wide base; built-in lowering speed control valve; lifts 8 $\frac{1}{2}$ " to 18". (Must conform to ASA standards.)
- 2240 Jars, Grinding**  
 Ceramics: beginning, advanced  
 Of special wear-resistant porcelain containing Byrundum; wide mouth for easy loading; integral lid and lock for fast opening and closing; eight sizes:  $\frac{1}{2}$  pt. to 6 $\frac{1}{2}$  gals.
- 2245 Jig, Doweling**  
 General Shop  
 Woodworking: beginning, advanced  
 With guides: 3/16, 1/4, 5/16, 3/8, 7/16, 1/2".
- 2250 Jigger, Electric (industrial model)**  
 Ceramics: beginning, advanced  
 Variable speed wheel and jigger; 3/4 HP electric motor; speeds from 0 to 525 RPM; weight 475 lbs.
- 2255 Jogger, Paper**  
 Graphic Arts: advanced  
 Vibrating; 14" x 20"; 110V.
- 2260 Jointer (6')**  
 Elementary  
 General Shop

Plastics: beginning, advanced

Woodworking: beginning, advanced

Long bed; floor model with totally enclosed metal stand to include right and left tilting fence, knife safety guards for both front and rear, individual table adjustment for infeed and outfeed tables and rabbeting capacity of  $\frac{1}{2}$ ". Motor:  $\frac{1}{2}$  HP, 60 cycles, 3-phase, 220V, with magnetic switch and overload protection.

**2265 Jointer (8')**

Woodworking: advanced

Long bed; floor model with totally enclosed metal stand to include right and left tilting fence, knife safety guards for both front and rear, individual table adjustment for infeed and outfeed tables, and rabbeting capacity of  $\frac{1}{2}$ ". Motor:  $1\frac{1}{2}$  HP, 60 cycles, 3-phase, 220V, with magnetic switch and overload protection.

**2275 Jolt Squeezer, Foundry**

Metalworking: advanced

Table size 17" x 20"; diameter 10"; capacity 6,000 lbs.; maximum jolt load 400 lbs.; variable distance from table to squeeze plate from 11" minimum to 17" maximum; to operate on 80 lbs. air line pressure.

**2280 Kiln Cut-off, Automatic (heat control device)**

Ceramics: beginning, advanced

Automatic shut-off for both gas and electric kilns; for temperatures to 2500°F; able to set meter-relay pointer at a pre-determined temperature; uses pyrometric cones to trigger switch action.

**2285 Kiln, Electric**

Ceramics: beginning, advanced

Elementary

General Shop

Firing chamber  $6\frac{1}{2}$ " x 7" x 4"; 172 cu. in.; temp. 3000°F; firing time to 1500°F in 35 minutes; 110V AC; 14.5 Amp; 2 firing speeds; wt. 50 lbs.

**2290 Kiln, Enameling**

Ceramics: beginning, advanced

Elementary

General Shop

Designed for enameling. 110V AC; case-welded steel construction; heating elements in sides of kiln; interior  $4$ " x  $8\frac{1}{2}$ " x  $8$ "; gravity-type door, self sealing, with peephole; wt. 31 lbs; 10 Amps.

**2295 Kiln, Front loading**

Ceramics: beginning, advanced

General Shop

For temperatures to 2000°F, 18" x 18" x 19" chamber. 220-230V AC.

- 2300 Kiln, Gas**  
 Ceramics: beginning, advanced  
 Front loading, forced-draft; for temperature to 2500°F; automatic cut-off controls; 20 cu. ft.; chamber 32" x 24" x 46".
- 2305 Kiln, Starter**  
 Ceramics: beginning, advanced  
 For starting or stopping kiln automatically at clock-timed intervals.
- 2310 Kiln, Top loading**  
 Ceramics: beginning, advanced  
 Electric; for temperatures to 2300°F, (cone 8) 17" x 17" x 18" chamber.  
 Knife, Bevel point (see: Knife, Skiving #2365)
- 2315 Knife, Carving (set)**  
 Drafting: advanced  
 Elementary  
 To include three blade holders; #1, #2, #6 knives; assorted extra blades; with box fitted for all parts.
- 2320 Knife, Electrician's**  
 Electricity-Electronics: beginning, advanced  
 With screwdriver blade and insulation scraper.
- 2325 Knife, Fettling**  
 Ceramics: beginning, advanced  
 For cleaning up greenware and for hand building work; thin and flexible.
- 2330 Knife, Head**  
 Elementary  
 For leather work; 4½" from point to point; 2⅜" at center.
- 2335 Knife, Ink**  
 General Shop  
 Graphic Arts: beginning, advanced  
 Square end; 8".
- 2340 Knife, Leather**  
 General Shop  
 Square end.
- 2345 Knife, Make ready and stripping**  
 Graphic Arts: beginning, advanced  
 #12 "Exacto".
- 2350 Knife, Mold maker's**  
 Ceramics: beginning, advanced  
 For mold work and general carving; blue finish; round white handle; blade length 4¾"

- 2355 Knife, Padding**  
Graphic Arts: beginning, advanced  
Round end.
- 2360 Knife, Putty**  
Elementary  
General Shop  
Woodworking: beginning, advanced  
Approximately 1"W; flexible tool steel blade.
- 2365 Knife, Skiving**  
Elementary  
General Shop  
Bevel point.
- 2370 Knife, Sloyd**  
Elementary  
General Shop  
Woodworking: beginning, advanced  
Blade approximately 2 $\frac{5}{8}$ "L.
- 2375 Knife, Stencil**  
General Shop
- 2380 Knife, Swivel cutter**  
Elementary  
General Shop  
Chrome plated; hardened tool steel.
- 2385 Knurling Tool, Lathe (coarse)**  
Metalworking: advanced  
Self centering; coarse diamond.
- 2390 Knurling Tool, Lathe (fine)**  
Metalworking: advanced  
Self centering; fine diamond.
- 2395 Knurling Tool, Lathe (medium)**  
Metalworking: advanced  
Self centering; medium diamond.
- 2400 Ladle, Bottom pour**  
General Shop  
5" diameter of bowl.
- 2405 Lamps, Drying (set)**  
Auto and Power Mechanics: advanced
- 2410 Lathe, Armature**  
Auto and Power Mechanics: advanced

**2415 Lathe, Metalworking (10')**

Auto and Power Mechanics: advanced

General Shop

Metalworking: beginning, advanced

Plastics: advanced

Minimum distance between centers 24"; cabinet model; underneath drive; quick change gear box; 54 thread and spindle changes L.H. or R.H. from 4 to 224; speeds from 50 to 1500 RPM; motor:  $\frac{3}{4}$  HP, 208-220V, 3-phase, drum switch and magnetic starter. Equipped with drive plate, spindle adapter, centers for head-stock and tailstock, tool post, ring and rocker, thread chasing dial and tool post wrench, 3-jawed chuck, 4-jawed chuck.

**2420 Lathe, Metalworking (14')**

Metalworking: advanced

Minimum distance between centers 36"; capacity through spindle 1-1/16"; cam lock spindle nose; center Morse Taper #3; spindle speeds: direct drive 215 to 875 RPM, backgearing 30 to 130 RPM; quick change gear box 4 to 224 threads per inch; tailstock spindle #3 Morse Taper; thread indicator dial; with 3-jawed and 4-jawed chuck; taper attachment, face plate; tool post assembly; centers and spindle sleeve; motor: 2 HP, 220V, 3-phase, pushbutton line starter control-forward, reverse, stop and magnetic reversing linestarter.

**2430 Lathe, Spinning (12')**

Metalworking: advanced

Plastics: beginning, advanced

Variable speed drive; speeds 650 to 3450 RPM; 1 HP motor; 220V; 3-phase; magnetic starter; metal spinning face plate; spinning tool rest with fulcrum pins; spinning center; spur center and cup center; set of metal spinning tools; set of wood turning chisels.

**2435 Lathe, Wood turning**

General Shop

Plastics: beginning, advanced

Woodworking: beginning, advanced

12" gap bed floor model with enclosed metal cabinet with 16 1/2" capacity over gap and at least 38" between centers. Motor  $\frac{3}{4}$  HP, 60 cycles, 220V, 3-phase with mounted switch and overload protection. To include cup center, spur center, 3 face plates, 1—6" tool rest, 1—12" tool rest, 1 tool support base, 1 knockout bar.

**2440 Leads (2 point) (25 lb. pkg.)**

General Shop

**2445 Leather Modeling Tool (set)**

General Shop

**2450 Leggings, Molder's (pair)**

General Shop

Metalworking: beginning, advanced

- 2455 Lettering guide line instrument**  
 Drafting: beginning, advanced  
 Transparent plastic disk in plastic frame; produces uniformly spaced lines; holes in disk produce letters in proportions of 3/5, 2/3, or 1/1; will produce 65° and 75° direction lines; graduated in 32nds of an inch and may also be graduated in millimeters.
- 2460 Lettering Set**  
 Drafting: advanced  
 General Shop  
 Professional quality; 11 templates with standard capital and lower case letters on each; size .080CL, .100CL, .350CL, .425CL, .500CL; in polished mahogany case; 11 pens sizes 000, 00, 0, 1, 2, 3, 4, 5, 6, 7, 8; adjustable scriber; scriber stand; lead clutch; socket holder; and pen holder.
- 2465 Level**  
 General Shop  
 Woodworking: beginning, advanced  
 Two double plumbs, one double level. 24" long.
- 2470 Lift, Engine safety**  
 Auto and Power Mechanics: advanced  
 (Engine Lifting Cable) 30"L including hook and adapter; 2 ton capacity; safety saddle permitting tilt adjustment.
- 2475 Lift, Pallet**  
 Ceramics: beginning, advanced  
 Hydraulic: hand truck.
- 2480 Light, Darkroom**  
 Graphic Arts: beginning, advanced  
 Red; amber, or as appropriate to film.
- 2485 Light, Flood**  
 Graphic Arts: beginning, advanced  
 10".
- 2490 Light, Extension**  
 Electricity-Electronics: advanced  
 Miniature extension probing light.
- 2495 Locks, Magnetic galley**  
 Graphic Arts: beginning, advanced
- 2500 Loom, Table**  
 Elementary  
 4 harness; 8" weaving space; pressed steel.
- 2505 Machine, Drafting (18°)**  
 Drafting: advanced

**General Shop**

18" drafting machine with 15° automatic indexing, full circle base line setting, fully graduated protractor, disc brake, and self-locking scales, of one each 9" and 18".

**2510 Machine, Drafting (24")**

Drafting: advanced

Track-type; with standard protractor head; automatic 15° indexing; protractor divided to 1 degree with vernier scale for sub-division of degrees; full 360 degree baseline setting; positive braking system; locks for both horizontal and vertical movement or either; may be specified for appropriate board size, usually 29" x 40" or larger; with one 12" and one 18" scale.

**2515 Machine, Reproduction (dry type)**

Drafting: beginning, advanced

Dry diazo white printer; table model; synchronized printing and moist developing up to 14 foot per minute; minimum lamp rating 35 watts per inch; width capacity 42"; current 115V; 60 cycle AC; a system to exhaust ammonia fumes from the room is desirable with this type of machine.

**2520 Machine, Reproduction (moist type)**

Drafting: beginning, advanced

General Shop

Moist diazo white printer; table model; synchronized printing and moist developing up to 14 foot per minute; minimum lamp rating 35 watts per inch; width capacity 42"; current 115V; 60 cycle AC.

**2525 Magnifiers**

Graphic Arts: beginning, advanced

Etcher's type; 10X; for negative examination.

**2530 Magnet, Bar**

Electricity-Electronics: beginning, advanced

Cobalt steel ALNICO type; minimum size 1/4" x 1/2" x 3".

**2535 Mallet, Hardwood**

General Shop

Metalworking: beginning, advanced

Woodworking: beginning, advanced

**2540 Mallet, Rawhide**

Auto and Power Mechanics: beginning, advanced

Elementary

General Shop

Graphic Arts: beginning, advanced

Metalworking: beginning, advanced

Plastics: beginning, advanced

Woodworking: beginning, advanced

10 oz.

- 2545 Mallet, Rubber**  
 Auto and Power Mechanics: beginning, advanced  
 Metalworking: beginning, advanced  
 Length of head approximately 3½"; rubber face approximately 2"; hickory handle.
- 2550 Mandrel, Expansion (set)**  
 Metalworking: advanced  
 Range ⅜" to 2½"; includes sizes ¼", 5/16", ⅜", 7/16", ½", 5/8", ¾", 7/8", 1".
- 2555 Mandrel Set**  
 Metalworking: advanced  
 Includes sizes ¼", 5/16", ⅜", 7/16", ½", 5/8", ¾", 7/8", 1".
- 2560 Marker, Felt-tip, Color (set)**  
 Elementary  
 Graphic Arts: beginning, advanced
- 2565 Marking Tool, Electric**  
 Drafting: beginning, advanced  
 Tantalum carbide point.
- 2570 Mason's Tools, Cement (set)**  
 Ceramics: beginning, advanced
- 2575 Meter, Ammeter (AC)**  
 Electricity; beginning, advanced.  
 General Shop  
 Range 0-25 amps.
- 2580 Meter, Ammeter (DC)**  
 General Shop  
 Range 0-10 amps.
- 2585 Meter, Battery tester**  
 General Shop  
 Electricity-Electronics: beginning, advanced  
 Switch positions 1.5, 4.5, 6.0 7.5, 9.0, 22.5, 45, 67.5, 75, 90 volts.
- 2590 Meter, Galvanometer**  
 Electricity-Electronics: advanced  
 Woodworking: advanced  
 500-0-500 micro amperes.
- 2595 Meter, Grip dip**  
 Electricity-Electronics: advanced  
 400 KC to 250 MC.
- 2600 Meter, Light**  
 Graphic Arts: beginning, advanced

For measurement of reflected and/or incident light; for film speeds to 12,000 ASA; case and neck strap included; (if of Cd.S. type, should include mercury battery power supply).

- 2605 Meter, Moisture content (electric)**  
Woodworking: advanced
- 2610 Meter, Volt-ohm (multi-range)**  
Electricity-Electronics: advanced  
General Shop  
Woodworking: advanced  
Sensitivity @ 20,000 ohms/volts D.C. Minimum voltage ranges: 0-1500V. Resistance ranges covering 0-1000 megohms; overload protected.
- 2615 Meter, VTVM**  
Electricity-Electronics: advanced  
General Shop  
Broad ranges and overload protection.
- 2620 Micrometer, Inside (set)**  
Auto and Power Mechanics: beginning, advanced  
Metalworking: beginning, advanced  
Range 2"-12" graduations in thousandths of an inch; 10 measuring rods and one 1/2" gauge encase solid rods; hardened and ground anvils on rods; adjustable for length; hardened and ground screw.
- 2625 Micrometer, Outside (1")**  
Auto and Power Mechanics: beginning, advanced  
Drafting: advanced  
General Shop  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
Graduated in .001"; hardened and ground threads; with spindle lock and ratchet adjustment.
- 2630 Micrometer, Outside (2")**  
Auto and Power Mechanics: beginning, advanced  
General Shop  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
Graduated in .001"; hardened and ground threads; with spindle lock and ratchet adjustment.
- 2635 Micrometer, Outside (3")**  
Auto and Power Mechanics: beginning, advanced  
General Shop  
Metalworking: beginning, advanced  
Graduated in .001"; hardened and ground threads; with spindle lock and ratchet adjustment.

- 2640 Micrometer, Outside (4")**  
 Auto and Power Mechanics: advanced  
 Graduated in .001"; hardened and ground threads; satin chrome finish; with spindle lock and ratchet adjustment.
- 2645 Micrometer, Outside (5")**  
 Auto and Power Mechanics: advanced  
 Graduated in .001"; hardened and ground threads; satin chrome finish.
- 2650 Micrometer, Outside (screw thread)**  
 Metalworking: advanced  
 Pitch diameters 0 to 1" graduated in .001"; 8 to 13 threads per inch.
- 2655 Micrometer, Outside (screw thread)**  
 Metalworking: advanced  
 Pitch diameters 0 to 1" graduated in .001"; 14 to 30 threads per inch.
- 2660 Microscope**  
 Plastics: advanced  
 Woodworking: beginning, advanced  
 10x Hygenian eyepiece with pointer, triple revolving nosepieces; 3 standard objectives: 4x, 10x, 43x; plain stage with side clips; fixed in stage condenser; iris diaphragm; in base illuminator.
- 2665 Milliammeter, Volt-ohm**  
 Auto and Power Mechanics: advanced  
 Factory-wired and calibrated; fuse-protected ohms-divider network; easy-to-read scales; polarity reversal switch; full-wave bridge rectifier; standard ohm ranges; with probe and cable.
- 2670 Milling Machine, Horizontal**  
 Metalworking: advanced  
 No. 2 Knee and Column, plain style. Specifications may vary according to need—these features, however, should be considered: fast, easy feed selection, directional feed controls, power rapid traverse, built-in backlash eliminator, spindle speeds selections, convenient electrical controls, ruggedness of construction, trip dogs and positive safety stops, easy chip removal and sump cleaning, anti-friction bearings, positive lubrication, safety features and simplicity of maintenance; includes Morse taper adaptor.
- 2675 Milling Machine, Universal**  
 Metalworking: advanced  
 Spindle C/L to table top with cutterhead horizontal 0 to 23", spindle nose to table top with cutterhead vertical 0 to 17" with adjustable cutterhead that can be positioned through a full 90° for vertical, angular, or horizontal milling. Other features to be considered: gib design, spindle drive motor, feed motor, coolant system, table work-

ing surface, saddle, ram, overarm, feed ranges, spindle speeds, controls, and lubrication.

**2680 Milling Machine, Vertical**

General Shop

Metalworking: advanced

Approximate range 9" x 40" table working surface, longitudinal table travel 26", cross travel 10", vertical travel of knee 18", vertical travel of spindle 5", turret to rotate 360° on column, head to rotate 360° on ram. Other features to be considered: gibs, accuracy and movement of all bearing surfaces, spindle bearings, spindle tapers, spindle speeds, 4-way head, balanced pulleys, power feed table, motors and electrical controls.

**2685 Mitering Machine**

Graphic Arts: beginning, advanced

Miters to 45°; square ends of rules; gauge sets to 63 Picas by Picas and nonpareils.

**2690 Mitre Box**

Elementary

General Shop

Woodworking: beginning, advanced

26° x 4" back saw; 8¼" right angle capacity.

**2695 Mixer, Slow speed (portable)**

Ceramics: beginning, advanced.

Motor or air driven. ¼ HP, dip proof, ball bearing motor attached to gear box. Stainless steel shaft is adjustable. To 8" diameter stainless propellers are furnished. 400 RPM.

**2700 Mixing Bowls (set)**

Plastics: beginning, advanced

Set of 3 sizes; stainless steel kitchen type.

**2705 Modeling Tool (set)**

Ceramics: beginning, advanced

Elementary

General Shop

Boxwood; fine wire pillard; kit of 10 modeling tools in plastic box.

**2710 Mold, Ingot**

General Shop

Metalworking: beginning, advanced

**2715 Molder, Blow**

Plastics: advanced

6" x 12" platen; cylinder approximately 2½" bore, 2" stroke; pneumatic operation; electronic cycling mechanism; provisions for connection to power and air.

**2720 Molder, Rotational**

Plastics: advanced

Variable speed drive 2 to 15 RPM, 1/4 HP, 110V motor with reversing switch; mold area approximately 15" diameter; oven 220V, 3-phase, temperature controlled 150°-600°F with circulating fan.

**2725 Molding Press, Compression (large)**

Plastics: beginning, advanced

Capacity 75 ton or more; two or more 220V, 3-phase electrically heated platens controlled from 200°-600°F; manual or motor operated hydraulic; platen size minimum 18" x 18"; piston stroke 5" minimum daylight opening; at least 8" with 4" removable adaptor.

**2730 Molding Press, Compression (medium)**

Plastics: beginning, advanced

Capacity 50 tons two 220V, 3-phase electrically heated platens controlled from 200°-600°F; manually operated two-stage hydraulic; platen size 12" x 12" minimum; piston stroke 5" minimum daylight opening—at least 6" with 4" removable adaptor.

**2735 Molding Press, Compression (small)**

Plastics: beginning

Capacity 20-25 tons; two 220V, 3-phase electrically heated platens controlled from 200°-600°F; manually operated hydraulic; platen size 6" x 6" minimum; piston stroke 4" minimum daylight opening—at least 6" with 3" removable adaptor.

**2740 Molding Press, Injection (large)**

Plastics: advanced

Capacity 3 oz. of styrene with appropriately rated mold size and clamping pressure; heaters 220V, 3-phase; motor operated hydraulic system; automatic and semi-automatic cycling.

**2745 Molding Press, Injection (medium)**

Plastics: beginning, advanced

Capacity 1 1/2 to 2 oz. of styrene with appropriately rated mold size and clamping pressure; heaters 220V, 3-phase; motor operated pneumatic or hydraulic systems; automatic or semi-automatic cycling.

**2750 Molding Press, Injection (small)**

General Shop

Plastics: beginning

Capacity 1/4 to 3/4 oz. of styrene with appropriately rated mold size and clamping pressure; heaters 110V, single-phase; hand operated mechanical or pneumatic.

**2755 Molding Press, Transfer (large)**

Plastics: advanced

Capacity 75 tons or more on clamp; two electrically heated 220V, 3-phase heated platens; motor operated hydraulic; platen size 18" x 18" minimum; piston stroke approximately 5"; transfer force approximately 20 tons minimum; transfer stroke approximately 3" minimum.

**2760 Molding Press, Transfer (medium)**

Plastics: advanced

Capacity approximately 50 tons on clamp; two electrically heated 220V, 3-phase platens; hand or motor operated hydraulic; platen size 12" x 12" minimum; piston stroke approximately 5"; transfer force approximately 15 tons; transfer stroke approximately 3".

**2765 Molds, Ceramics (assorted)**

Ceramics: beginning, advanced

General Shop

For slip casting.

**2770 Mortar and Pestle**

Ceramics: beginning, advanced

Acid resistant, thick chemical porcelain; possesses a surface texture which facilitates grinding.

**2775 Mortar Box**

Ceramics: beginning, advanced

**2780 Mortiser, Hollow chisel**

Woodworking: advanced

Floor model with 1/2" mortise capacity and to handle stock up to 20"L. Complete with compound table and lateral adjustments, hold down attachment and foot lever control. Machine to include one each of the following drills and hollow chisel bits: 1/4", 5/16", 3/8", 7/16", and 1/2" and 1/4" and 5/16" bit bushings. Motor: 1 HP, 60 cycles, 220V, 3-phase with mounted switch and overload protection.

**2785 Motor Stand, Universal**

Auto and Power Mechanics: advanced

2000 lb. capacity; 360° rotation; stop in any position.

**2790 Muller-Mixer**

Ceramics: beginning, advanced

Blends dry ceramic bodies quickly, uniformly, and completely, ready for preparation for throwing, dry pressing. Cast aluminum drum—diameter 13 1/4", depth 6 3/4"; hinge door at bottom. Two cast aluminum muller wheels 6 1/4" diameter x 1 1/2". Chromium plated scraper blades. 1/3 HP, 115V AC-DC. 3-wire cord and plug.

**2795 Multiscope**

Auto and Power Mechanics: advanced

**2800 Nail Set (1/16" tip)**

Elementary

General Shop

Plastics: beginning, advanced

Woodworking: beginning, advanced

Square head.

- 2805 Nail Set (3/32" tip)**  
 Elementary  
 Woodworking: beginning, advanced  
 Square head.
- 2810 Needle, Binding**  
 Graphic Arts: beginning, advanced
- 2815 Needle, Knitting (pair)**  
 Elementary  
 10" standard length.
- 2820 Needle, Lacing**  
 General Shop
- 2825 Needle, Raffia (card)**  
 Elementary  
 Card of 2 needles: 1 straight, 1 curved.
- 2830 Nibbler, Hand operated**  
 Electricity-Electronics: beginning, advanced  
 Capacity: 18 ga. steel.
- 2835 Nipper, End-cutting**  
 Auto and Power Mechanics: beginning, advanced  
 General Shop  
 Metalworking: beginning, advanced  
 Woodworking: beginning, advanced  
 6"; compound lever action.
- 2840 Nipper, Tile**  
 General Shop  
 Carbide cutting edges.
- 2845 Nozzle, Blow gun (air line)**  
 Auto and Power Mechanics: beginning, advanced  
 Woodworking: beginning, advanced  
 Forged brass body; air blast controlled by pressure button.
- 2850 Numbering Machine, Cleaner box**  
 Graphic Arts: beginning, advanced  
 Removable cleaning section.
- 2855 Numbering Machine, Hand**  
 Graphic Arts: beginning, advanced  
 6 wheel machine; five movements: duplicate, triplicate, quadruplicate, consecutive, repeat; drop cipher.
- 2860 Numbering Machine, Press**  
 Graphic Arts: beginning, advanced  
 General Shop  
 6 wheel; forward and backward movement; lowplunger.

**Nutdriver (see: Wrench, Nutdriver #5330).**

**2865 Oiler, Bench**

Auto and Power Mechanics: beginning, advanced  
Electricity-Electronics: beginning, advanced  
Elementary  
General Shop  
Graphic Arts: beginning, advanced  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
Woodworking: beginning, advanced  
1/3 pint or 1/2 pint size; 5" straight spout.

**2870 Oiler, Pump**

Auto and Power Mechanics: beginning, advanced  
Graphic Arts: beginning, advanced  
Woodworking: beginning, advanced  
5 oz. capacity; trigger operated spout approximately 5"L; seamless construction.

**2875 Oiler, Straight**

Auto and Power Mechanics: beginning, advanced  
1/2 pint.

**2880 Oilstone, Arkansas**

Drafting: beginning, advanced  
Wedge-shaped; tapering from 1/4" to very thin edge; fine grain for sharpening ruling pen nibs.

**2885 Oilstone, Carving tool slips (set)**

General Shop  
Woodworking: beginning, advanced  
India stones.

**2890 Oilstone, Combination, India**

Auto and Power Mechanics: beginning, advanced  
Electricity-Electronics: beginning, advanced  
Elementary  
General Shop  
Graphic Arts: beginning, advanced  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
Woodworking: beginning, advanced  
Coarse and fine grits; 8" x 1" x 2".

**2895 Oilstone, Combination, Silicon carbide**

Auto and Power Mechanics: beginning, advanced  
Electricity-Electronics: beginning, advanced

General Shop  
Graphic Arts: beginning, advanced  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
Coarse, fine; 8" x 1" x 2".

**2900 Oilstone, Gouge slip**

General Shop  
Woodworking: beginning, advanced  
India stone.

**2905 Oilstone, Slip**

General Shop  
Woodworking: beginning, advanced  
India stone.

**2910 Oscilloscope**

Electricity-Electronics: beginning, advanced  
General Shop  
Z axis input; positive lock internal synchronization; DC or MC wide  
band scope with 5" screen.

**2915 Oven**

Elementary  
General Shop  
Plastics: beginning, advanced  
Woodworking: advanced  
Laboratory type for heating plastics; 0-550°; inside dimensions ap-  
proximately 12"W x 10"H x 10"D; with adjustable shelf; complete with  
switch and automatic thermo control. 220V, 3-phase, or 110V, single-  
phase; safety vented.

**2920 Oven, Core**

Metalworking: advanced  
Laboratory type for heating plastics; 0-550°; inside dimensions ap-  
proximately 12"W x 10"H x 10"D; with adjustable shelf; complete with  
switch and automatic thermo control. 220V, 3-phase; or 110V,  
single-phase.

**2925 Packer, Wheel bearing**

Auto and Power Mechanics: beginning, advanced

**2930 Pad Counter**

Graphic Arts: beginning, advanced  
Stabbing type; 3" adjustable for measuring equal size pads.

**2932 Pan, Dust**

Auto and Power Mechanics: beginning, advanced  
Ceramics: beginning, advanced

Drafting: beginning, advanced  
Electricity-Electronics: beginning, advanced  
Elementary  
General Shop  
Graphic Arts: beginning, advanced  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
Woodworking: beginning, advanced  
12" steel.

- 2935 Pantograph, Drafting**  
Drafting: advanced  
21" hardwood bars scaled for reducing or enlarging subjects up to 25 ratios. Metal tracer and lead holder point.
- 2940 Pantograph, Metalworking**  
Plastics: advanced  
2 or 3 dimensional; enlargement up to 1:16. 220V, single-phase, appropriate cutters.
- 2945 Parallels, Adjustable (set)**  
Metalworking: advanced  
Set of 6 with capacity range  $\frac{3}{8}$ " to  $2\frac{1}{4}$ ".
- 2950 Pen Holder**  
Drafting: advanced  
Wood or metal with cork or rubber grip; protruding metal nib; 6" to 7" in length.
- 2955 Pen Set**  
Drafting: advanced  
General Shop  
One each: Crow quill pen, flexible quill pen, hawk quill pen, mapping pen, imperial or medium pen, drawing pen (round pointed), artist pen (medium size), Crow quill pen holder, regular pen holder.
- 2960 Pen, Speedball (set)**  
Drafting: advanced  
General Shop  
Includes style A, sizes A-0 to A-5; style B, sizes B-0 to B-6; style C, sizes C-0 to C-6; style D, sizes D-00 to D-5.
- 2965 Pencil Pointer, Lead pencil**  
Drafting: beginning, advanced  
General Shop  
Pencil file; hardened tool steel with wood handle; 6"L.
- 2970 Pencil Pointer, Mechanical**  
Drafting: beginning, advanced  
With abrasive cup; all metal unit; non-skid base.

- 2975 Pencil Sharpener, Draftsman's**  
 Drafting: beginning, advanced  
 With removal cutters; adjustable setting head; self-feeding.
- 2980 Pencil Sharpener, Standard**  
 Auto and Power Mechanics: beginning, advanced  
 Ceramics: beginning, advanced  
 Drafting: beginning, advanced  
 Electricity-Electronics: beginning, advanced  
 Elementary  
 General Shop  
 Graphic Arts: beginning, advanced  
 Metalworking: beginning, advanced  
 Plastics: beginning, advanced  
 Woodworking: beginning, advanced  
 Adjustable setting head; self-feeding.
- 2985 Pencil, Woodburning**  
 Elementary  
 General Shop  
 Replaceable element; interchangeable tips.
- 2990 Perforator**  
 Graphic Arts: advanced  
 Bench model; 19" capacity; with interchangeable heads.
- 2995 Pipet Control, Microsyringe**  
 Plastics: advanced
- 3000 Plane, Block**  
 Elementary  
 General Shop  
 Woodworking: beginning, advanced  
 1 5/8" cutter.
- 3005 Plane Iron, Double**  
 Woodworking: beginning, advanced
- 3010 Plane, Jack**  
 General Shop  
 Plastics: beginning, advanced  
 Woodworking: beginning, advanced  
 14"L; cutter 2" wide.
- 3015 Plane, Jointer**  
 General Shop  
 Woodworking: beginning, advanced  
 22"L; cutter 2 3/8" wide.

- 3020 Plane, Junior jack**  
General Shop
- 3025 Plane, Portable, Electric**  
Woodworking: advanced  
16" complete with spiral cutter, cutter sharpener, grinding wheel spacers, electric cord with 3-prong electric plug, and metal carrying case. (Note: Plane attachment can be purchased for use with portable electric router shaper).
- 3030 Plane, Rabbet**  
Woodworking: beginning, advanced  
4"L; 1" cutter.
- 3035 Plane, Router**  
Woodworking: beginning, advanced  
With 3 cutters ( $\frac{1}{4}$ ",  $\frac{1}{2}$ ", and V).
- 3040 Plane, Smoothing**  
Elementary  
General Shop  
Woodworking: beginning, advanced  
Length: 9"; blade width:  $1\frac{3}{4}$ ".
- 3045 Planer, Type**  
General Shop  
Graphic Arts: beginning, advanced  
 $1\frac{3}{4}$ " x 3" x  $1\frac{1}{2}$ " and  $3\frac{1}{4}$ " x 8" x  $2\frac{1}{2}$ " (suggest two sizes needed); maple wood; varnished; leather top; shaped for ease in handling.
- 3050 Plaster Working Tool**  
Ceramics: beginning, advanced  
Made of hand forged, hand ground, highly tempered tool steel. Average length 7". Six tools available in plain, chisel, and toothed edges.
- 3055 Plate, Angle**  
Metalworking: advanced  
4" x 5" x 6".
- 3060 Plate, Surface**  
Metalworking: advanced  
10" x 15"; hand scraped.
- 3062 Plate-maker**  
Graphic Arts: beginning, advanced  
Approximately 24" capacity with "flip-top"; vacuum contact plate; xenon light; 110/220 with ground wire.
- 3065 Pliers, Battery**  
Auto and Power Mechanics: beginning, advanced

Heavy duty gripping; 6-7/16"L; 2 position slip-joint; nickel chrome plated; wire cutter; serrated throat.

**3070 Pliers, Bent nose**

General Shop  
6".

**3075 Pliers, Brake**

Auto and Power Mechanics: beginning, advanced  
All purpose; Bendix socket on handle.

**3080 Pliers, Chain**

Auto and Power Mechanics: beginning, advanced

**3085 Pliers, Combination (6")**

Auto and Power Mechanics: beginning, advanced  
Ceramics: beginning, advanced  
Electricity-Electronics: beginning, advanced  
Elementary  
General Shop  
Graphic Arts: beginning, advanced  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
Woodworking: beginning, advanced  
Forged steel, machined, hardened, and oil tempered.

**3090 Pliers, Combination (8")**

Auto and Power Mechanics: beginning, advanced  
General Shop  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
Forged steel, machined, hardened, and oil tempered.

**3095 Pliers, Duckbill**

Electricity-Electronics: beginning, advanced  
8".

**3100 Pliers, Diagonal-cutting**

Auto and Power Mechanics: beginning, advanced  
Electricity-Electronics: beginning, advanced  
Elementary  
General Shop  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
6"; drop forged.

**3105 Pliers, Electrician's**

Elementary  
General Shop  
8"; side-cutting; forged steel, with plastic insulated handles.

- 3110 Pliers, End-cutting**  
 General Shop  
 Plastics: beginning, advanced  
 Forged steel, hardened, oil tempered.
- 3115 Pliers, Hose clamp, Radiator and gas line**  
 Auto and Power Mechanics: advanced  
 General Shop  
 2 position slip joint; for 3/4" to 2" diameter; milled (fluted) jaws to hold clamp at right angles to handles; 8"L handles; plastic handles.
- 3120 Pliers, Ignition**  
 Auto and Power Mechanics: beginning, advanced  
 Narrow jaws; 3 position slip joint.  
**Pliers, Lever, Wrench (see: Pliers, Vise-grip wrench #3170).**
- 3125 Pliers, Lineman's**  
 General Shop  
 6"; side-cutting; forged steel, machined, hardened, and oil tempered; with plastic insulated handles.
- 3130 Pliers, Long nose**  
 General Shop  
 6"; side-cutter.
- 3135 Pliers, Needle nose**  
 Auto and Power Mechanics: beginning, advanced  
 Electricity-Electronics: beginning, advanced  
 Elementary  
 General Shop  
 Metalworking: beginning, advanced  
 6".
- 3140 Pliers, Retaining ring**  
 Auto and Power Mechanics: beginning, advanced  
 8" or 5"; designed to grasp retaining springs by their lugs; black lacquer finish.
- 3145 Pliers, Round nose**  
 General Shop  
 6"; forged steel.
- 3150 Pliers, Side-cutting (6")**  
 Auto and Power Mechanics: beginning, advanced  
 Electricity-Electronics: beginning, advanced  
 Forged steel, machined, hardened, spring tempered handles.
- 3155 Pliers, Straight nose**  
 Drafting: beginning, advanced  
 Plastics: beginning, advanced

- Metalworking: beginning, advanced.  
8"; combination; forced steel.
- 3160 Pliers, Tongue and groove**  
Plastics: beginning, advanced  
("Channel-lock"). Length: 10"; capacity: 1½".
- 3165 Pliers, tru-arc (#2)**  
General Shop  
For replacing "tru-arc" rings on axles or shafts; for small engine work.
- 3170 Pliers, Vise-grip wrench**  
Auto and Power Mechanics: beginning, advanced  
Electricity-Electronics: beginning, advanced  
Elementary  
General Shop  
Graphic Arts: beginning, advanced  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
Woodworking: beginning, advanced  
7"; easy release.
- 3175 Pliers, Waterpump**  
Auto and Power Mechanics: beginning, advanced  
5 adjustments ("channel-lock"). 5 position slip joint; jaws parallel opening to 2"; 45° angle jaws; 21/64" T.
- Plug Cutter (see: Bit, Plug cutter (set) #0330).**
- 3190 Pneumatic Instruction Center (pneumatic power unit)**  
Auto and Power Mechanics: advanced  
Universal mounting system; components suitable for teaching-learning; bench heavy steel top and frame, interior fitted for storage of components, master-keyed doors; instrument panel contains water manometer, mercury manometer, 160 lb. pressure gauge, rotameter, type flowmeter, air compressor controls including switch, fuse, pilot light and convenience outlet; ½ HP oilless compressor with 10 gal. ASME pressure tank, pressure switch and relief valve; circuitry of 3/8" plastic tubing, flexible, with hand-tite fittings; power requirement of 120V 5A, with 3-wire cord and grounded plug.
- 3195 Polisher, Body**  
Auto and Power Mechanics: beginning, advanced  
Portable air polisher; RPM-4500.
- 3200 Potter's Wheel, Electric**  
Ceramics: beginning, advanced  
General Shop  
½ HP, 110/220V AC-DC motor; variable speeds 0 to 120 RPM; for-

ward or reverse; 14" cast aluminum alloy throwing head; table 24" x 30". Water and shock-proof switch. 3-wire conductor with ground.

**3205 Potter's Wheel, Kick**

Ceramics: beginning, advanced

Seated type; welded tubular steel, kick wheel-iron casting machined to true balance 28"D weighs 115 lbs. A 1½ true-level track machined on rim for power attachment.

**3210. Potter's Wheel, Side-kick**

Ceramics: beginning, advanced

Standing type; welded construction; 14" aluminum wheel head; removable; fiberglass pan; 75 lb. flywheel.

**3215 Power Supply, Low voltage**

General Shop

AC and DC; 0-15V; maximum 5 amperes.

**3220 Power Supply, Variable output**

Electricity-Electronics: beginning

General Shop

0-20V AC and DC at 10 amperes; fused or diode protected.

**3225 Power Supply, Variable output, Filtered**

Electricity-Electronics: advanced

General Shop

0-300V DC at 100 ma; with filament voltages.

**3230 Pre-expander, Polystyrene**

Plastics: advanced

Steam or electrical 220V, 3-phase; controlled densities from 1 lb. per cubic foot.

**3235 Press, Arbor**

Auto and Power Mechanics: beginning, advanced

General Shop

Metalworking: advanced

Auto and Power Mechanics: Hydraulic; 25 ton capacity; pressure gauge; 6" ram travel; hand operated pump; 2 speed.

General Shop and Metalworking: 3 ton capacity gear driven.

**3240 Press, Block printing**

Elementary

Lever type; prints up to 8" width paper.

**3245 Press, Copying**

Graphic Arts: beginning, advanced

11" x 16" capacity; ball and socket joint to connect main screw with plate.

**3250 Press, Drill (15")**

Auto and Power Mechanics: beginning, advanced

Ceramics: beginning, advanced

Electricity-Electronics: beginning, advanced

General Shop

Metalworking: beginning, advanced

Plastics: beginning, advanced

Woodworking: beginning, advanced

15" capacity; variable speed; #2 Morse taper in spindle; floor model; 1/2" key chuck; tilting standard table; with 1/2 HP, 220V, 3-phase motor, and magnetic switch and starter.

**3255 Press, Drill (17")**

Auto and Power Mechanics: beginning, advanced

Metalworking: advanced

Floor model; variable speed 300 to 3100 RPM; production table with raising and lowering mechanism; #3 Morse taper spindle; key chuck, 1/2" capacity; belt and pulleys completely guarded; 3/4 HP motor (minimum); 220V; 3-phase; push button magnetic control and starter.

**3260 Press, Hot stamping**

Graphic Arts: beginning, advanced

1" type holder.

**3265 Press, Hydraulic, Heated platen**

Woodworking: advanced

Minimum capacity of 12 tons with 12" x 12" platen platen temperatures to be individually controlled and metered; daylight opening to be a minimum of 5".

**3270 Press, Offset**

Graphic Arts: beginning, advanced

11" x 15"; 3 cylinder; chain pile; delivery; tumbler grippers, two 1/3 HP, 110V, 60-cycle motors; including all standard equipment and safety guards.

**3275 Press, Padding**

General Shop

Graphic Arts: beginning, advanced

Bench model; quick adjusting to various size sheets and stock pile height; 12" x 18".

**3280 Press, Platen**

General Shop

Graphic Arts: beginning, advanced

12" x 18"; handfed; power operated; guards; counter; fountain; variable speed; 1/2 HP, 220V, 3-phase, 60-cycle motor; with flywheel, pulley, and impression safety guards.

- 3285 Press, Platen, Automatic feed**  
 Graphic Arts: advanced  
 10" x 15"; with automatic wash-up; central lubrication system; two-up attachment; 220V, 3-phase, 60-cycle.
- 3290 Press, Platen, Hand lever**  
 General Shop  
 Graphic Arts: beginning, advanced  
 6" x 10"; with ink disc, depressable grippers, trucks tools and 3 chases. Stirrup handle, 2 rollers; with cabinet.
- 3295 Press, Proof**  
 General Shop  
 Graphic Arts: beginning, advanced  
 Flat bed; impression cylinder; without grippers; base.
- 3300 Press, Proof, Reproduction**  
 Graphic Arts: advanced  
 Hand operated; impression cylinder; gripper bar; base.
- 3305 Press, Rubber stamp**  
 General Shop  
 Graphic Arts: beginning, advanced  
 Complete with thermostat, timer, bell, pilot light, temperature gauge, cord and switch; 1110 V.
- 3310 Printer, Contact**  
 Graphic Arts: beginning, advanced  
 Beginning: 35 MM through 5/7; positive paper stops; stainless steel masks; automatic exposure switch; steel housing; 100V AC.  
 Advanced: Adjustable margins to 8" x 10"; automatic time control; built-in safe light; built-in-paper and negative holder; 100V AC.
- 3320 Printmaker, Graphic arts**  
 General Shop  
 Graphic Arts: beginning, advanced  
 12" x 12" steel bed; 10 x 14 Chase.
- 3325 Projection Box, Plastic**  
 Drafting: beginning  
 3 plastic hinged planes about 12" x 12" per plane and base.
- 3330 Projection Box, Plastic, Instructor's**  
 Drafting: advanced  
 Includes hinged plastic planes and base, suspension holes, devices to illustrate points, lines, and planes.
- 3335 Projection Box, Plastic, Student's**  
 Drafting: advanced  
 Three 4" x 4" plastic planes hinged with cloth tape.  
 Projection Screen (see: Screen, Projection #3990).

**3340 Projector, Filmstrip (35mm) and slide (2" x 2")**

Auto and Power Mechanics: beginning, advanced

Ceramics: beginning, advanced

Drafting: beginning, advanced

Electricity-Electronics: beginning, advanced

Elementary

General Shop

Graphic Arts: beginning, advanced

Metalworking: beginning, advanced

Plastics: beginning, advanced

Woodworking: beginning, advanced

Self-contained in case with lens cover; threading push-in or auto-  
matic; slide carrier: 2" x 2" manual lateral construction; glass pres-  
sure plates: all glass pressure plates when used to be securely  
fastened with metal and no adhesive used; 115V AC; 60 cycles;  
blower cooled; minimum of 500W lamp. Slide feed: manual local,  
remote or automatic timed interval.

**3345 Projector, Motion picture, Sound**

Auto and Power Mechanics: beginning, advanced

Ceramics: beginning, advanced

Drafting: beginning, advanced

Electricity-Electronics: beginning, advanced

Elementary

General Shop

Graphic Arts: beginning, advanced

Metalworking: beginning, advanced

Plastics: beginning, advanced

Woodworking: beginning, advanced

16mm; 750-1000W, AC lamp; 6" speaker; 12W amplifier; sound and  
silent speeds; reverse; still picture device. Separate tone and volume  
controls; 2-inch f/1.6 lens. 115V-120V AC, 750W lamp—with  
speaker in separate housing. With 400', 800', 1200', 1600' take-up  
reels; ASA approved.

**3350 Projector, Overhead**

Auto and Power Mechanics: beginning, advanced

Ceramics: beginning, advanced

Drafting: beginning, advanced

Electricity-Electronics: beginning, advanced

Elementary

General Shop

Graphic Arts: beginning, advanced

Metalworking: beginning, advanced

Plastics: beginning, advanced

Woodworking: beginning, advanced

Image stage 10" x 10"; 110-120V; 60-cycle electrical system; minimum length 14' of #16—3-wire cord; minimum 100 hourlamp capable of putting 1700 lumens on the screen; single off-on switch for both lamp and for motor; automatic thermal switch for running fan from 3 to 5 minutes after lamp is turned off; head with tilt mechanism up to 30°; focusing mechanism rack and pinion with knob for controls; heavy duty vinyl dust cover; size approximately 18" x 13" x 10½".

- 3355 Protractor, Chalkboard**  
Drafting: beginning, advanced  
15" hardwood; with magnets, holding knob, hanger holes.
- 3360 Protractor, Machinist's bevel**  
Woodworking: beginning, advanced  
12" blade; with level in cast iron head.
- 3365 Protractor, Semi-circular**  
Drafting: beginning, advanced  
Elementary  
General Shop  
6" molded plastic, beveled edge; graduated in ½ degree increments from 0°-180°.
- 3370 Pug Mill, Laboratory model**  
Ceramics: advanced  
Extrusion auger machine, de-airing type; tub size 9" x 4'; capacity in 8 hours 1500-2000 lbs.; weight 300 lbs.
- 3375 Pug Mill, Studio model**  
Ceramics: advanced  
Mixes clay to throwing or modeling consistency; 1½ HP, single-phase motor; 58" x 30" x 2"; capacity 200-300 lbs./hr.
- 3380 Pug Mill, Vertical**  
Ceramics: beginning, advanced  
12" vertical; weight 780 lbs.; 3 HP motor required; delivers pugged clay at rate of 18" per minute; 3" diameter.
- 3385 Pug Mill, Extrusion**  
Ceramics: beginning  
Table model; with extrusion dies; 40"L x 8⅞"W x 9½"H; chromium plated to prevent corrosion and wear; 1/3 HP, 115V AC/DC motor; 90 lbs. unit weight; 100 lbs. of clay can be extruded per hour.
- 3390 Puller Assembly**  
Auto and Power Mechanics: beginning, advanced  
(Harmonic Balancer Puller) designed for jobs with tapped holes, containing 4 slatted yoke to allow use of the tool in 2, 3 hole applications—center screw, swivel and spring, side screws 3 @ 5/16-18 x 2", 3 @ ⅜-24 x 2", 2 @ ⅜-16 x 4".

- 3395 Puller Assembly (large)**  
Auto and Power Mechanics: advanced  
(2-way Puller Kit) inside and outside jaws heavy duty thread; steel yoke and adjusting nut; with accessories.
- 3400 Puller, Auto body metal (set)**  
Auto and Power Mechanics: advanced  
Including 10 ton hydraulic unit; extension tubes; adjustable spoon blades.
- 3405 Puller, Axle**  
Auto and Power Mechanics: advanced  
Universal puller.
- 3410 Puller, Freeze plug**  
Auto and Power Mechanics: advanced
- 3415 Puller, Gear (set)**  
Auto and Power Mechanics: advanced  
(3 jaw reverse gear puller) reversible 3 jaws having a wide face on one end and narrow face on the other; sturdy center screw.
- 3420 Puller, Seal (set)**  
Auto and Power Mechanics: advanced  
With adapters ranging from 1 3/8-2-7/16.
- 3425 Puller, Steering wheel**  
Auto and Power Mechanics: advanced  
Capable of removing all makes of steering wheels on cars and trucks; completely universal.
- 3430 Puller, Valve guide and valve**  
Auto and Power Mechanics: advanced  
(Valve Puller) pulls valves on all makes of cars up to 1 3/4" head diameter; direct pulling action; tapered pulling head to cradle valve; steel yoke.  
(Valve Guide Puller) accessory to above; to remove valve guides 5/16" diameter; shank knurled; nuts to be supplied to cover guide sizes 5/16", 11/32", 3/8", 7/16", 1/2" guides.
- 3435 Puller, Wheel (set)**  
Auto and Power Mechanics: advanced  
Combination slide, hammer and screw type puller containing 2/3 way yoke; 3 medium outside jaws, 2 small inside jaws; 3 large outside jaws; 13" pressure screw; slide hammer shaft; booster hammer; combination yoke; locking collar; locking collar nut; disc spreader; set screw; yoke pin; centering adapter; spring retainer; bar handle; metal storage case.
- 3440 Pulverizer, Laboratory model**  
Ceramics: beginning  
Casing accurately machined inside; fitted with removable head; grind-

ing spider made of one piece cast steel and machined; replaces mortar and pestle method of grinding clay samples.

- 3445 Pump, Oil drum**  
Auto and Power Mechanics: beginning, advanced  
For 55 gal. drums.
- 3450 Pump, Slip, Duplex**  
Ceramics: advanced  
For filter press assembly; laboratory type.
- 3455 Punch, Center (set)**  
Auto and Power Mechanics: beginning, advanced  
Electricity-Electronics. beginning, advanced  
Elementary  
General Shop  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
Woodworking: beginning, advanced  
Set of 5; 1/16" to 1/4" diameter at tapered point; knurled grip; hardened at both ends.
- 3460 Punch, Chassis (round set)**  
Electricity-Electronics: beginning, advanced  
General Shop  
Two piece dies; 7/8", 3/4", 1", 1 1/8".
- 3465 Punch, Chassis (square set)**  
Electricity-Electronics: beginning, advanced  
General Shop  
Two piece dies; 1/2", 3/4", 1".
- 3470 Punch, Drift (set)**  
Auto and Power Mechanics: beginning, advanced  
3/32" to 1/2" by 32nds.
- 3475 Punch, Drive (set)**  
Metalworking: beginning, advanced  
Set of five; punch diameter 1/8" to 3/8"; 8"L; round shank; knurled grip.
- 3480 Punch, Hand (set)**  
Elementary  
Plastics: beginning, advanced  
For light sheet metal; set of 7 punches and dies; 3/32" to 9/32"; complete with metal box.
- 3485 Punch, Hollow (set)**  
Metalworking: beginning, advanced  
3/8", 1/2", 5/8", 3/4", 1", 1 1/2", 2".

- 3490 Punch, Leather, Revolving**  
 Elementary  
 General Shop  
 6 tubes sizes; 8"L.
- 3495 Punch, Paper**  
 Drafting: beginning, advanced  
 General Shop  
 Graphic Arts: beginning, advanced  
Drafting: Multiple type; punches 1 to 4 holes simultaneously; with adjustable paper guide and punch depressors.  
Graphic Arts: Table size, 12" x 18"; drill diameters,  $\frac{1}{8}$ " to  $\frac{3}{8}$ "; maximum capacity, 1 $\frac{1}{2}$ "; side and back margin guide;  $\frac{1}{4}$  HP, 110V, 60-cycle, single-phase, AC motor.
- 3500 Punch, Pin (set)**  
 Auto and Power Mechanics: beginning, advanced  
 Electricity-Electronics: beginning, advanced  
 General Shop  
 Plastics: beginning, advanced  
 4"L; set includes diameters from  $\frac{1}{16}$ " to  $\frac{1}{2}$ " by 32nds.
- 3505 Punch, Tinner's (set)**  
 General Shop
- 3510 Pyrometer, Optical**  
 Ceramics: beginning, advanced  
 Shelf-contained; direct reading; light weight (3 $\frac{1}{2}$ " lbs.). Actual matching of brightness is achieved by making the apparent brightness of the glowing body equal to that of the standard light of constant intensity.
- 3515 Pyrometer, Portable**  
 Ceramics: beginning, advanced  
 Elementary  
 Built into a metal case and comes with 30" thermocouple; range to 2500°F.
- 3520 Pyrometer, Radiation**  
 Ceramics: beginning, advanced  
 For quick and accurate method of determining temperatures above 1000°F by thermo-electric principles.
- 3525 Quoin, Hi-speed**  
 General Shop  
 Graphic Arts: beginning, advanced  
 3" and 9".
- 3530 Quoin Key, Hi-speed**  
 General Shop  
 Graphic Arts: beginning, advanced

- 3535 Rack, Enameling**  
General Shop  
4" x 3"; mesh.
- 3540 Rack, Glue clamp**  
Woodworking: beginning, advanced  
72" x 36" x 32"H; open top with sets of grooves to accept bar clamps three feet and over; lower center rail suitable for storing hand screws and C-clamps.
- 3545 Rack, Lumber**  
Plastics: beginning, advanced  
Horizontal or vertical with storage for approximately 250 board feet of lumber; plywood and hard board storage provided for approximately 36 pieces 48" x 96".
- 3550 Rack, Magazine**  
Drafting: advanced  
Magazine shelving, 60"H, 12"D, and 36"L; with shelves adjustable every inch; magazine shelves providing a convenient slope for display of current periodicals; storage behind.
- 3555 Rack, Metal storage**  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
All steel; vertical; approximately 4'W x 9'H; sloping front section with adjustable troughs for bar, rod, angle, etc.; back section open at both ends to accommodate 4' x 8' sheet stock.
- 3560 Rack, Roll, Tympan**  
Graphic Arts: beginning, advanced  
18"; tension bar with brackets.
- 3565 Rack, Roll, Wrapping paper**  
Graphic Arts: beginning, advanced  
24"; tension bar with brackets.
- 3568 Rack, Roll, Wrapping paper**  
Woodworking: advanced  
36"; tension bar with brackets.
- 3570 Radiator Test Plugs (set)**  
Auto and Power Mechanics: advanced
- 3575 Rammer, Hardwood**  
General Shop  
Metalworking: beginning, advanced
- Rasp, Wood (see: Files # 1540)**
- 3580 Ream, Center (set)**  
Metalworking: beginning, advanced  
60° included angle; high speed; sizes 1/4", 3/8", 1/2", 5/8", 3/4".

- 3585 Reamer, Cylinder ridge**  
 Auto and Power Mechanics: advanced  
 Range 2-11/16" to 5-5/16"; full swivel yoke; will ream modern slant block engines as well as standard cylinders; tungsten carbide cutters.
- 3590 Reamer, Electrician's hand**  
 Electricity-Electronics: beginning, advanced  
 1/8" tip; tapered; 5"L.
- 3595 Reamer, Expansion (set)**  
 Auto and Power Mechanics: advanced  
 Metalworking: advanced  
 Set of 8; A to H; semi-high speed steel blades.
- 3600 Reamer, Pipe**  
 Metalworking: beginning, advanced  
 1/8" to 1"; round shank.
- 3605 Reamer, Valve seat (set)**  
 Auto and Power Mechanics: advanced  
 9/32", 5/16", 11/32" expanding pilots; reamer arbor; 45° finishing reamers (1 1/4", 1-5/16", 1 3/8", 1 1/2", 1 5/8", 1 3/4"); 30° finishing reamers (1 1/2", 1 5/8", 1 3/4"); 20° narrowing reamers (1 1/2", 1 7/8"); 70° narrowing reamers (1-7/16", 1-11/16").
- 3610 Reels, Drop cord**  
 Auto and Power Mechanics: beginning, advanced  
 3 wire; 50'; heavy duty; U ground.
- 3615 Refacer, Valve (set)**  
 Auto and Power Mechanics: advanced  
 General Shop  
 0-90 with positive stops at 14, 15, 19, 20, 29, 30, 44, 45, 90; flexible drive shaft; coolant tank; quick set valve stop; collets 9/32" to 9/16"; diamond dresser; tappet holder.
- 3620 Reglets, Wood**  
 General Shop  
 Assorted sizes in fronts.
- 3625 Remover, Stud (set)**  
 Auto and Power Mechanics: advanced  
 Wedge type action; 1/2" square drive; spring tension pin to hold wedges in place; 2 different sized wedges to increase usable range.
- 3630 Repair Kit, Drafting instrument**  
 Drafting: advanced  
 Includes bearings, T-bolts and nuts, needle points to fit instruments in #2190 or #0925.
- 3645 Rethreader, Axle**  
 Auto and Power Mechanics: advanced

For restoring damaged axle threads; clamp action; sizes  $\frac{5}{8}$ "-18,  
 $\frac{3}{4}$ "-16,  $\frac{7}{8}$ "-14, 1"-14,  $1\frac{1}{8}$ "-12,  $1\frac{1}{4}$ "-12.

- 3650 Rethreader, Spark plug hole**  
Auto and Power Mechanics: advanced  
Spark plug tap.
- 3655 Rheostat, 10 ohm**  
Auto and Power Mechanics: advanced
- 3660 Riddle, Foundry**  
General Shop  
Metalworking: beginning, advanced  
3-ply laminated frame; wire screen 8 mesh to the inch.
- 3665 Rivet Set**  
General Shop  
Metalworking: beginning, advanced  
Set of 5; sizes #3, #4, #5, #6, #7.
- 3670 Riveter, "Pop" (set)**  
Elementary
- 3675 Router, Portable, Electric**  
General Shop  
Plastics: beginning, advanced  
Woodworking: beginning, advanced  
 $\frac{1}{2}$  or  $\frac{7}{8}$  HP; with recessed switch;  $\frac{1}{4}$ " collet capacity; dual knobs;  
micrometer depth adjustment; removable base; guide for straight  
and circular cuts; template guide; assorted cutters as needed; with  
3 conductor plug and cord.
- 3680 Rotary Machine, Combination**  
General Shop  
Metalworking: advanced  
24 ga. capacity; depth of throat 7"; distance between shaft centers  
2"; with crimping; beading; furnace offset edging; and offset rolls.
- 3685 Rule, Brass**  
General Shop  
Type high.
- 3690 Rule, Circumference (36")**  
Metalworking: beginning, advanced  
Tinnerns with liquid and dry measure dimension tables; standard  
measurements to 8ths.
- 3695 Rule, Flexible, Steel tape (6')**  
General Shop  
Woodworking: beginning  
 $\frac{1}{2}$ " replaceable blade.

- 3700 Rule, Flexible, Steel tape (8')**  
 Elementary  
 General Shop  
 Woodworking: advanced  
 1/2" replaceable blade.
- 3705 Rule, Flexible, Steel tape (10')**  
 Auto and Power Mechanics: beginning, advanced  
 Woodworking: beginning, advanced  
 3/4"; with black markings on white background; plated steel case,  
 2"W; marked both edges in 16ths; first six inches upper edge to  
 32nd.
- 3710 Rule, Flexible, Steel tape (12')**  
 Drafting: advanced  
 Metalworking: beginning, advanced  
 3/4"; with black markings on white background; plated steel case,  
 2"W; marked both edges in 16ths; first six inches upper edge to  
 32nd.
- 3715 Rule, Flexible, Steel tape (25')**  
 Woodworking: beginning, advanced  
 3/4"; with black markings on white background; plated steel case,  
 2"W; marked both edges in 16ths; first six inches upper edge to 32nd.
- 3720 Rule, Flexible, Steel tape (50')**  
 Woodworking: advanced  
 3/4"; with black markings on white background; plated steel case,  
 2"W; marked both edges in 16ths; first six inches upper edge to  
 32nd.
- 3723 Rule, Flexible, Steel tape (100')**  
 Drafting: advanced  
 Woodworking: Beginning, advanced  
 Jet black markings on 1/2" chrome-white surface; figures and gradua-  
 tion bonded to line and protected by electroplating; rust resistant  
 welded steel lines covered with leather; folding flush handle opened  
 by push pin.
- 3725 Rule, Hook**  
 Metalworking: advanced  
 12"L.
- 3730 Rule, Make-up**  
 Graphic Arts: beginning, advanced  
 Polished tempered steel.
- 3735 Rule, Maple (24")**  
 General Shop  
 Brass tips.

- 3740 Rule, Short (set)**  
Metalworking: advanced  
Short set of five; with holder; 1/4" to 1".
- 3745 Rule, Steel (6")**  
Metalworking: beginning, advanced  
10ths, 100ths, 32nd, 64ths.
- 3750 Rule, Steel (12")**  
Auto and Power Mechanics: beginning, advanced  
Electricity-Electronics: beginning, advanced  
Elementary  
General Shop  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
Woodworking: beginning, advanced  
Graduated to 16th inch.
- 3755 Rule, Steel (24")**  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
Woodworking: beginning, advanced  
Graduated to 16th inch.
- 3760 Rule, Steel (36")**  
General Shop  
Woodworking: beginning, advanced  
Graduated to 16th inch.
- 3765 Sand Blaster**  
Metalworking: advanced  
Booth; sand blast gun; hose.
- 3770 Sand Muller**  
Metalworking: advanced  
Capacity: approximately 25 pounds of dry material.
- 3775 Sander, Band**  
Elementary  
Portable; may also be used for grinding; band 1" x 42"; V-belt drive; complete with 1/2 HP motor; 110V AC; single-phase; 3 conductor cord.
- 3780 Sander, Belt, Portable, Electric**  
General Shop  
Plastics: beginning, advanced  
Woodworking: beginning, advanced  
3" x 24" or 4" x 24"; spur gear, belt drive, ball and needle bearings; with dust bag; 115V AC motor with 3 conductor cord.

- 3785 Sander, Combination belt and disc**  
 General Shop  
 Woodworking: beginning, advanced  
 6" belt and 12" disc; floor model with metal stand; tilting table adjustable from 0° to 45° and slotted from mitre gauge; guarded to expose only moving sanding surfaces; tilting fence; belt adjustable to a vertical or horizontal position; motor: 1 HP, 60 cycles, 220V, 3-phase, magnetic switch and starter.
- 3790 Sander, Disc**  
 Plastics: beginning, advanced  
 12" minimum diameter; ¾ HP; 220V; 3-phase; tilting table or disc; mitre gauge magnetic switch and starter.
- 3795 Sander, Finishing, Portable, Electric**  
 Elementary  
 General Shop  
 Plastics: beginning, advanced  
 Woodworking: beginning, advanced  
 Heavy duty; ¼" to ⅛" orbital action; abrasive paper size ½ of standard sheet; trigger switch; 3 conductor cord.
- 3800 Sander, Finishing, Portable, Air**  
 Auto and Power Mechanics: advanced  
 Orbital or straight line action; air driven.
- 3805 Sander, Handblock stroke**  
 Woodworking: advanced  
 Six inch belt with stock capacity of 4" thick and 60" long, rolling table, 1 HP heavy duty motor, dust collector hood ready for connection to exhaust system, hand block, and with 3 each of 80 and 120 grit cloth abrasive belts.
- 3810 Sander, Spindle**  
 Plastics: beginning, advanced  
 Woodworking: beginning, advanced  
 For 9" oscillating abrasive sleeves. Throat plates and sleeves in standard sizes; table tilts to 45°; on floor stand with ½ HP 3-phase 220 motor with magnetic switch and starter.
- 3815 Sanding Drums (set)**  
 Plastics: beginning, advanced  
 Woodworking: beginning  
 3" x 3" diameter with ½" shank; 1¾" x 2" diameter with ½" shank; 11/16" x 2½" diameter with ½" shank; 1½" x 1" diameter with ½" shank; 3" x 3" diameter with #2 Morse taper; 1½" x 1" diameter with #2 Morse taper.
- 3820 Saw, Back**  
 Elementary  
 General Shop

Graphic Arts: beginning, advanced  
Plastics: beginning, advanced  
Woodworking: beginning, advanced  
12".

**3825 Saw, Band, Metal-cutting**

Metalworking: advanced

18" capacity; saw blade capacities from 1/16" to 1" wide, approximately 12' long. With speeds of 50-2000 f.p.m.; including air blower, chip remover, tilting table, V-belt drive, assorted blade guides, and attached blade welding device; 220V, 3-phase with magnetic switch and starter.

**3830 Saw, Band, Wood-cutting**

Elementary

General Shop

Plastics: beginning, advanced

Woodworking: beginning, advanced

14" floor model complete with enclosed metal base, tilting table grooved for mitre gauge, and with ball bearing guides; motor: 1/2 HP, 60 cycles, 220V, 3-phase with magnetic switch and starter.

or: 20" floor model complete with enclosed metal base, tilting table grooved for mitre gauge, foot brake, and with ball bearing guides; motor: 1 1/2 HP, 60 cycles, 220V, 3-phase with magnetic switch and starter.

**3835 Saw, Circular, Power**

Elementary

General Shop

Plastics: beginning, advanced

Woodworking: beginning, advanced

10" floor model with enclosed metal base, tilting arbor, quick positioning rip fence, mitre gauge, and safety guard with splitter; motor: 1 1/2 HP, 60 cycles, 220V, 3-phase with magnetic switch and starter.

or: 12" floor model with enclosed metal base, quick positioning rip fence, mitre gauge, and safety guard with splitter; motor: 5 HP, 60 cycles, 220V, 3-phase with magnetic switch and starter.

**3840 Saw, Compass (set)**

Elementary

General Shop

Nest of 3 blades and 1 handle in set comprising compass keyhole and metal-cutting blade.

**3845 Saw, Coping**

Electricity-Electronics: beginning, advanced

Elementary

General Shop

Plastics: beginning, advanced

Woodworking: beginning, advanced  
6½" pin-end, screw-type handle; adjustable to any angle; rigid frame.

**3850 Saw, Hack (hand)**

Auto and Power Mechanics: beginning, advanced

Electricity-Electronics: beginning, advanced

Elementary

General Shop

Metalworking: beginning, advanced

Plastics: beginning, advanced

Woodworking: beginning, advanced

Die cast metal handle aluminum alloy; tubular body adjustable to receive 9"-12" blade.

**3855 Saw, Hack, Close quarter**

General Shop

With very shallow depth, for limited clearance work.

**3860 Saw, Hack, Power**

General Shop

Metalworking: beginning, advanced

Plastics: advanced

Minimum capacity 6" x 6"; swivel, (adv.) vise; automatic stop; pressure feed control; automatic lift on reverse stroke, built-in coolant tank and pump; ½ HP motor; 220V; 3-phase; magnetic push button starter.

or: Minimum capacity 5" x 5" swivel vise; automatic stop; automatic lift on reverse stroke; 1/3 HP motor; 220V; 3-phase; magnetic push button starter.

**3865 Saw, Hand, Crosscut**

Electricity-Electronics: beginning, advanced

Elementary

General Shop

Plastics: beginning, advanced

Woodworking: beginning, advanced

22" 10 point; straight back, highly polished, taper ground.

**3870 Saw, Hand, Rip**

General Shop

Woodworking: beginning, advanced

26" 5½ point; straight back, highly polished, taper ground.

**3875 Saw, Jeweler's (4")**

General Shop

Metalworking: beginning, advanced

4"D; adjustable frame with tension screw

- 3880 Saw, Jeweler's (6")**  
 Metalworking: beginning, advanced  
 6"D; adjustable frame with tension screw.
- 3885 Saw, Jig (scroll)**  
 Elementary  
 General Shop  
 Plastics: beginning, advanced  
 Woodworking: beginning, advanced  
 24"; complete with metal stand; motor 1/3 HP, single-phase, 60-cycle, AC, 115V; equipped with starting switch, 3 conductor cord.
- 3887 Saw, Keyhole**  
 Woodworking: beginning, advanced  
 10" taper ground blade.
- 3890 Saw, Printer's trim**  
 Graphic Arts: beginning, advanced  
 Micrometer gauge capacity, 78 pieces capacity in front of saw blade 20", 24" by undercutting; clamp open capacity 7"; clamp hold as short as 8 points; saw blade diameter, 7"; overall table dimension 18 1/2" x 22 1/2"; 1/2 HP, 220 V, 60-cycle, 3-phase motor; micrometer gauge, chip truck; 7" diameter blade; 3 trimmer bits; standard safety guards.
- 3895 Saw, Radial-arm, Power**  
 General Shop  
 Woodworking: advanced  
 10" saw complete with stand, table extensions, floating saw guard, exhaust nozzle, safety return reel, anti-kickback attachment, bevel positive stops of 0°, 45°, and 90°, mitre positive stops of 0°, 45° right and left; motor totally enclosed and fan cooled, 2 HP, 60 cycles, 200V, 3-phase with magnetic switch and starter.
- 3900 Saw, Sabre (bayonet)**  
 Elementary  
 General Shop  
 Plastics: beginning, advanced  
 Woodworking: advanced  
 Portable; heavy duty; lightweight; aluminum housing; angle adjustment base; 115V, with cord and 3 conductor cord.
- 3905 Saw, Veneer**  
 Woodworking: advanced
- 3910 Sawhorse**  
 Elementary  
 Approximately 24"H x 48"L; flat top 2" x 8" or 2" x 10"; for clamping material when sawing with coping saw. (Usually homemade.)

- 3915 Sawjack**  
Elementary  
Wood; V-cut in end; approximately  $5\frac{1}{8}$ " x 5" x 10". (Homemade.)
- 3925 Scale, Architect's**  
Drafting: beginning, advanced  
General Shop  
12" triangular; boxwood; engine divided; graduations:  $\frac{3}{32}$ ,  $\frac{1}{8}$ ,  $\frac{3}{16}$ ,  $\frac{1}{4}$ ,  $\frac{3}{8}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$ , 1,  $1\frac{1}{2}$ , 3" each equalling 1'-0".
- 3930 Scale, Chalkboard (demonstration)**  
Drafting: beginning, advanced  
Minimum length 6' triangular; can be rotated; with mounting brackets.
- 3935 Scale, Decimal, Civil engineer's**  
Drafting: advanced  
General Shop  
12" triangular; boxwood; engine divided; graduations: 10, 20, 30, 40, 50, 60 parts to the inch.
- 3940 Scale, Household**  
Woodworking: advanced  
Accuracy to  $\frac{1}{4}$  ounce; capacity approximately 5 lbs.; dial adjustable to compensate for container weight.
- 3945 Scale, Laboratory**  
Ceramics: beginning, advanced  
Plastics: beginning, advanced  
Precision accuracy; reading is graduated in both avoirdupois and metric; will weigh 100 grams; pans are of acid-resistant aluminum.
- 3950 Scale, Mechanical engineer's**  
Drafting: beginning, advanced  
12" triangular; boxwood; engine divided; graduations:  $\frac{1}{2}$ " = 1'-0", 3" = 1'-0",  $4\frac{1}{2}$ " = 1'-0", 6" = 1'-0", 9" = 1'-0", full size, 1" = 1'-0".
- 3955 Scale, Metric**  
Drafting: advanced  
12" triangular; plastic; engine divided; graduations: 1 cm., 2 cm., 2.5 cm., 3 cm., 5 cm.
- 3960 Scale, Triple beam**  
Ceramics: beginning, advanced  
310 gram capacity; direct-reading dial—10 grams to .01 gram; with 6"D removable pan, 6"D non-removable flat platform, and 12" x 6" x  $2\frac{3}{4}$ " brass scoop.
- 3965 Scissors**  
Auto and Power Mechanics: beginning, advanced  
Drafting: beginning, advanced

Electricity-Electronics: beginning, advanced  
Elementary  
General Shop  
Graphic Arts: beginning, advanced  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
Woodworking: beginning, advanced  
8"; trimmer; paper shears.

- 3970 Scoop, Plaster**  
Plastics: beginning, advanced  
Household sugar scoop type.
- 3975 Scrape Granulator**  
Plastics: advanced  
Rotary knife type.
- 3980 Scraper, Cabinet**  
Elementary  
General Shop  
Plastics: beginning, advanced  
Woodworking: beginning, advanced  
Malleable iron frame with 2 $\frac{3}{4}$ " blade.
- 3985 Scraper, Carbon**  
Auto and Power Mechanics: beginning, advanced  
Wire blades; high quality spring steel; flexibility controlled by movable ferrule.
- 3990 Scraper, Flexible**  
Ceramics: beginning, advanced  
Spring steel in rectangle and half moon shapes; used for smoothing and trimming pottery shapes.
- 3995 Scraper, Hand**  
Elementary  
General Shop  
Plastics: beginning, advanced  
Woodworking: beginning, advanced  
Approximately 3" x 5" steel blade.
- 4000 Scraper, Rigid**  
Ceramics: beginning, advanced  
For smoothing or cutting clay and plaster surfaces; scraper plain or toothed.
- 4005 Screeding Wheel**  
Plastics: beginning, advanced

Shop made; none commercially available; hand operated turn table approximately 18" diameter; mounting for screeds above.

**Screen, Arc welding (see: Welding Screen, Portable #5205)**

**4010 Screen, Projection**

Auto and Power Mechanics: beginning, advanced

Ceramics: beginning, advanced

Drafting: beginning, advanced

Electricity-Electronics: beginning, advanced

Elementary

General Shop

Graphic Arts: beginning, advanced

Metalworking: beginning, advanced

Plastics: beginning, advanced

Woodworking: beginning, advanced

60" x 60"; vinyl mat-white; wall-mounted with brackets providing adjustment to correct for keystone effect.

**4015 Screens, Halftone, Contact**

Graphic Arts: beginning, advanced

Grey; magenta; pre-angled.

**4020 Screwdriver, Cabinet tip**

General Shop

4" and 6".

**4025 Screwdriver, Clutch-head (set)**

Auto and Power Mechanics: beginning, advanced

Plastic handles.

**4030 Screwdriver, Insulated (set)**

Electricity-Electronics: beginning, advanced

General Shop

Regular blades 3/16" and 9/32"; with 4", 6", and 8" shafts.

**4035 Screwdriver, Offset, Phillips (set)**

General Shop

Metalworking. advanced

**4040 Screwdriver, Offset ratchet**

Woodworking: beginning, advanced

**4045 Screwdriver, Offset, Straight slot (set)**

General Shop

Metalworking: beginning, advanced

Woodworking: beginning, advanced

Set with tips of 3/16", 9/32", and 11/32".

**4050 Screwdriver, Phillips (set)**

Auto and Power Mechanics: beginning, advanced

Drafting: beginning, advanced  
Electricity-Electronics: beginning, advanced  
General Shop  
Metalworking: beginning, advanced  
Woodworking: beginning, advanced  
Set with points #1, #2, #3.

- 4055 Screwdriver, Retaining type**  
Electricity-Electronics: beginning, advanced  
3/16" blade, 1/8" shaft, straight slot.
- 4060 Screwdriver, Spiral ratchet**  
Auto and Power Mechanics: advanced  
Woodworking: beginning, advanced  
With replaceable bits.
- 4065 Screwdriver, Standard bit (changeable blades) (set)**  
Elementary  
Set of 5; standard tips 4", 6"; cabinet tips 4", 6"; Phillips tip #1 size.
- 4070 Screwdriver, Standard bit (round blade) (set)**  
Drafting: beginning, advanced  
Elementary  
General Shop  
Graphic Arts: beginning, advanced  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
Woodworking: beginning, advanced  
Set of 5; blade widths of 3/16", 1/4", 5/16", 3/8", 1/2".
- 4075 Screwdriver, Standard bit (square blade) (4")**  
Auto and Power Mechanics: beginning, advanced  
Square shank; plastic handle.
- 4080 Screwdriver, Standard bit (square blade) (6")**  
Auto and Power Mechanics: beginning, advanced  
Drafting: beginning, advanced  
Square shank; plastic handle.
- 4085 Screwdriver, Standard bit (square blade) (8")**  
Auto and Power Mechanics: beginning, advanced  
Square shank; plastic handle.
- 4090 Screwdriver, Standard bit (square blade) (10")**  
Auto and Power Mechanics: beginning, advanced  
Square shank; plastic handle.

- 4095 Screwdriver, Standard bit (square blade) (12")**  
Auto and Power Mechanics: beginning, advanced  
Square shank; plastic handle.
- 4100 Screwdriver, Standard bit ("stubby")**  
Auto and Power Mechanics: beginning, advanced  
General Shop  
Square shank; plastic handle.
- 4105 Scriber**  
Auto and Power Mechanics: beginning, advanced  
General Shop  
Metalworking: beginning, advanced  
Complete with 3 points: 1 straight, 1 short bent, 1 long bent.
- 4110 Seamer, Handy**  
General Shop  
Metalworking: beginning, advanced
- 4115 Sieve, Test laboratory**  
Ceramics: beginning, advanced  
Made to exact standards of both U.S. Bureau of Standards and The National Bureau of Standards; solid polished brass or polished tinned steel; diameter 8"; mesh sizes 30 to 120.
- 4120 Setting Down Machine**  
Metalworking: advanced
- 4125 Sewing Machine**  
Elementary  
Portable or upright; used domestically for sewing coarse materials, light leathers, etc.
- 4130 Shaper, Metal**  
General Shop  
Metalworking: advanced  
12" to 15" stroke; specifications to be included according to need: cutting speeds, table travel—horizontal and vertical, tool head, drive unit, lubricating system, drive unit including motor and switches, cross feed—power and hand, vise, and shaper tools.
- 4135 Shaper, Spindle (floor model)**  
Woodworking: advanced  
Complete with interchangeable spindles 5/16", 1/2", 3/4", and 1"; adjustable fence, hold-down guides and fence guard assembly; motor: 1 HP, 60 cycles, 220V, 3-phase, including reversible switch and over-load protection.
- 4140 Shear, Leather**  
General Shop  
8".

- 4145 Shear, Ring and circle**  
 Metalworking: advanced  
 Minimum gauge: mild steel 20 ga.; minimum circle from square blanks 3½" to 24".
- 4150 Shear, Squaring foot**  
 Electricity-Electronics: beginning, advanced  
 General Shop  
 Metalworking: beginning, advanced  
 Plastics: beginning, advanced  
 Minimum capacity mild steel 16 gauge; minimum cutting length 36" anti-pinch and toe guard.
- 4155 Shearing and Forming Machine, Universal**  
 Plastics: advanced  
 Capacity 5/32" mild steel; throat 42"D; 1 HP, 220V, 3-phase motor; variety of cutting and forming tools.
- 4160 Sheet Metal Tool**  
 Elementary  
 Vise grip forming and bending tool, jaw width ¾"; throat depth 1¾"; length 8".
- 4165 Shield, Face**  
 Auto and Power Mechanics: beginning, advanced  
 Ceramics: beginning, advanced  
 Electricity-Electronics: beginning, advanced  
 Elementary  
 General Shop  
 Graphic Arts: beginning, advanced  
 Metalworking: beginning, advanced  
 Plastics: beginning, advanced  
 Woodworking: beginning, advanced  
 Shatterproof; 6" shield; adjustable headband; hinged visor. (Must conform to ASA 22.1-1959.)  
 Eye shield. (For grinders) Fits all grinders; steel frame; fitted with safety glass; adjustable up, down and to tilt. (For woodworking, spot welding, metal sawing, etc.) (Lightweight, cushioned headband; full vision visor gives essential and adequate protection to face and eyes against impact; visor may be raised to set position; .040" thick, 4", 6" or 8"L. (Approved and exceed ASA Spec Z2.1-1959.)
- 4170 Shovel, Square point**  
 General Shop  
 Metalworking: beginning, advanced  
 For foundry shoveling.
- 4175 Sifter**  
 Ceramics: beginning, advanced  
 General Shop

Light weight plastic; 80 mesh screen; wire permanently sealed to plastic; twisted wire handle; small size 1" diameter, large size 2" diameter.

**4180 Signal Generator**

Electricity-Electronics: advanced

General Shop

Sine Wave range 20-200,000 c.p.s.; Square Wave range 60-50,000 c.p.s. RF and AF.

**4185 Signal Tracer**

Electricity-Electronics: beginning, advanced

Wide range demodulator; AC supply only.

**4190 Sign-maker Set**

Drafting: advanced

Includes guide holder, assorted guides for capital and lower case letters and numerals, brush and felt pens, and ink supply.

**4195 Silk Screen Unit**

General Shop

Graphic Arts: beginning, advanced

Printing frames; #12 silk; squeegee; ink; film sheets; film-cutting knives; lettering brushes; ink mixing knives; frame tape and register guides.

**4200 Sinks, Developing**

Graphic Arts: beginning, advanced

Temperature controlled; accommodates 3 20" x 24" trays; washer viewer; 110V AC.

**4205 Sinks, Platemaking**

Graphic Arts: beginning, advanced

Inside dimension 29" x 40" x 8"D; built-in spray pipe full length of sink; all-purpose side tray.

**4210 Siphon, Photo**

Graphic Arts: beginning, advanced

**4215 Skife**

Elementary

A tool for skiving leather, uses a narrow razor blade in a special frame.

**4220 Slab, Inking**

Elementary

Plate glass; for block printing; approximately 6" x 6" x 1/4" T or heavier; ground and polished edges for safety.

**4222 Sleeves, Molder's**

Metalworking: beginning, advanced

- 4225 Slick and Oval (1")**  
Metalworking: beginning, advanced
- 4230 Slick and Oval (1 1/4")**  
Metalworking: beginning, advanced
- 4235 Slugs (6 point) (25 lb. pkg.)**  
General Shop
- 4240 Snap Fastener (set)**  
Elementary  
General Shop  
For beginning leatherwork; hexagonal setting tool; 4" flat anvil and two bodkins.
- 4250 Snip, Aviation (left)**  
Electricity-Electronics: beginning, advanced  
General Shop  
Metalworking: beginning, advanced  
10"L; compound leverage.
- 4255 Snip, Aviation (right)**  
Electricity-Electronics: beginning, advanced  
General Shop  
Metalworking: beginning, advanced  
10"L; compound leverage.
- 4260 Snip, Aviation (combination and straight)**  
Elementary  
General Shop  
Metalworking: beginning, advanced  
10"L; compound leverage.
- 4265 Snips, Hawksbill**  
General Shop  
Metalworking: beginning, advanced  
3" cut.
- 4270 Snips, Tin, Curved blade**  
General Shop  
Curved blade; 3".
- 4275 Snips, Tinner's, Straight (#8)**  
Auto and Power Mechanics: beginning, advanced  
Electricity-Electronics: beginning, advanced  
Elementary  
General Shop  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
Steel laid.

- 4280 Snips, Tinner's, Straight (#10)**  
Metalworking: beginning, advanced  
Steel laid.
- 4285 Socket, Deep spark plug (13/16")**  
General Shop  
3/8" drive.
- 4290 Socket, Deep spark plug (1 1/8")**  
General Shop  
3/8" drive.
- Socket Wrench (see: Wrench #5255-#5470)**
- 4295 Soldering Copper, Electric (60W)**  
Electricity-Electronics: beginning  
Elementary  
General Shop  
Metalworking: beginning, advanced  
Woodworking: beginning, advanced  
1/4" copper tip with stand.
- 4300 Soldering Copper, Electric (200W)**  
Metalworking: beginning, advanced
- 4305 Soldering Copper, Electric (300W)**  
Metalworking: advanced
- 4310 Soldering Copper, Electric pencil**  
Electricity-Electronics: beginning, advanced  
30W; tellurium tip; 7" slim handle.
- 4315 Soldering Copper (pair) (1/2 lb.)**  
Metalworking: beginning, advanced
- 4320 Soldering Copper (pair) (1 lb.)**  
Metalworking: beginning, advanced
- 4325 Soldering Copper (pair) (1 1/2 lb.)**  
Metalworking: beginning, advanced
- 4330 Soldering Copper (pair) (2 lb.)**  
Auto and Power Mechanics: beginning, advanced  
General Shop
- 4335 Soldering Gun, Electric**  
Auto and Power Mechanics: beginning, advanced  
Electricity-Electronics: beginning, advanced  
Elementary  
General Shop  
Dual-heat; spotlight; 240-325W.

**Soldering Iron (see: Soldering Copper #4295-#4330).**

- 4340 Spacer, Leather marker**  
General Shop  
Size 6.
- 4345 Spaces, Assorted fonts (6 point)**  
General Shop
- 4350 Spaces, Assorted fonts (8 point)**  
General Shop
- 4355 Spaces, Assorted fonts (10 point)**  
General Shop  
Graphic Arts: beginning, advanced
- 4360 Spaces, Assorted fonts (12 point)**  
General Shop  
Graphic Arts: beginning, advanced
- 4365 Spaces, Assorted fonts (14 point)**  
General Shop
- 4370 Spaces, Assorted fonts (18 point)**  
General Shop  
Graphic Arts: beginning, advanced
- 4375 Spaces, Assorted fonts (24 point)**  
General Shop
- 4380 Spaces, Assorted fonts (30 point)**  
General Shop
- 4385 Spaces, Assorted fonts (36 point)**  
General Shop
- 4390 Sparklighter**  
General Shop  
Metalworking: beginning, advanced
- 4395 Spatula**  
General Shop  
 $\frac{1}{2}$ " x 3" blade.
- 4400 Spokeshave, Convex bottom**  
Woodworking: beginning, advanced  
Malleable iron frame.
- 4405 Spokeshave, Straight**  
General Shop  
Woodworking: beginning, advanced  
Malleable iron frame.

- 4410 Sponge, Bulb**  
 General Shop  
 Rubber bulb; camel hair brush; 8 oz.
- 4415 Sponge, Elephant ear shape**  
 Ceramics: beginning, advanced  
 Elementary  
 Fine grain; for finishing clay forms. Highly absorbent; for finishing pottery;  $\frac{3}{8}$ " thick average.
- 4420 Sponge, Sheep wool**  
 Ceramics: beginning, advanced  
 Natural shaped Mediterranean; 4"-5" diameter average size; soft.
- 4425 Spoon and Gate Cutter**  
 General Shop  
 1" wide; molder's tool.
- 4430 Spoons, Measuring (set)**  
 Elementary
- 4435 Spout, Pouring, Oil can**  
 Auto and Power Mechanics. beginning, advanced  
 1 qt.; pierce type; heavy gauge steel; hardened steel cutter for piercing oil cans; nickel plated.
- 4440 Spray Booth, Ceramic**  
 Ceramics: advanced  
 24" x 24" x 28"; with 10" electric exhaust fan; glass wool filters; with stand. (Must conform to ASA standards.)
- 4445 Spray Booth, Dry**  
 Ceramics: beginning, advanced  
 Metalworking: advanced  
 Plastics: beginning, advanced  
 Woodworking: advanced  
 5'W, 7'H, 4' working depth, 6'8" overall depth; constructed of #18 ga. black iron panels, each panel formed with companion flanges punched on 10" centers for bolted assembly; will have fire deflector curtain; rear of booth will be provided with a bank of (12) 20" x 20" x 2" dry paper paint arrestor filter cells; each cell to contain (2) 20" x 20" x 1" filter pads with snap-in grids; to include: 1 24" diameter exhaust fan; one  $\frac{1}{2}$  HP, 220V, 60-cycle, 3-phase explosion-proof ball bearing motor; two 200W angle type explosion-proof reflectors and lamps; two light fixture mounting brackets; one 24" diameter manual damper; one 24" diameter 3'0" long exhaust stack with access door; one oil and water extractor and pressure regulator. (Must conform to ASA standards.)  
Ceramics: Bench type; 20 gauge sheet metal; bolts and flanges outside of booth for easy cleaning; equipped with distributing plate to

equalize flow of air; 3'6"W x 6'1"H; working depth 1'11"; bench height 2'7"; 1/4 HP fan motor required.

**4450 Spray Gun (all-materials)**

Plastics: beginning, advanced

Disposable container; (requires compressed air source).

**4455 Spray Gun Outfit**

Auto and Power Mechanics: advanced

General Shop

Metalworking: beginning, advanced

Woodworking: beginning, advanced

General purpose, removable spray head, external mix, with combination nozzle for general use, complete with cup for suction feed, hose, and fittings to complement available air supply.

**4460 Spray Gun, Touch-up**

Ceramics: beginning, advanced

Gun body of 1. piece aluminum; plated for surface protection; gun head of drop forged bronze; needle valve of hardened steel.

**4465 Spray Unit, Reinforced plastics**

Plastics: advanced

Integrated segmenter for glass rovings and nozzle system to spray chopped rovings, resins, and catalyst; boom for mounting equipment; tanks for resins and catalyst; suitable pressure regulators and controls.

**4475 Sprinkling Can**

General Shop

Galvanized steel.

**4480 Square, Combination**

Electricity-Electronics: beginning, advanced

General Shop

Metalworking: beginning, advanced

Plastics: beginning, advanced

Woodworking: beginning, advanced

12".

**4485 Square, Combination set (with protractor and center head)**

Drafting: advanced

General Shop

Metalworking: beginning, advanced

Plastics: beginning, advanced

12".

**4490 Square, Steel framing**

Electricity-Electronics: beginning, advanced

Elementary

- General Shop  
Graphic Arts: beginning, advanced  
Plastics: beginning, advanced  
Woodworking: beginning, advanced  
12" x 24".
- 4495 Square, Try (6")**  
Electricity-Electronics: advanced  
Elementary  
Woodworking: beginning, advanced
- 4500 Square, Try (8")**  
Elementary  
General Shop
- 4505 Square, Try (12")**  
Woodworking: beginning, advanced
- 4510 Stake, Beakhorn**  
General Shop  
Metalworking: beginning, advanced
- 4515 Stake, Bevel edge square**  
Metalworking: advanced
- 4520 Stake, Blowhorn**  
General Shop  
Metalworking: beginning, advanced
- 4525 Stake, Bottom**  
Metalworking: advanced
- 4530 Stake, Candle mold**  
General Shop  
Metalworking: beginning, advanced
- 4535 Stake, Conductor**  
Metalworking: advanced
- 4540 Stake, Coppersmith square**  
General Shop
- 4545 Stake, Double seaming**  
Metalworking: advanced
- 4550 Stake, Grooving**  
Metalworking: advanced
- 4555 Stake, Hatchet**  
General Shop  
Metalworking: beginning, advanced

- 4560 Stake, Hollow mandrel**  
 General Shop  
 Metalworking: beginning, advanced
- 4565 Stake, Needle case**  
 Metalworking: advanced
- 4570 Stake, Round head**  
 General Shop  
 Metalworking: advanced
- 4575 Stamp, Leather**  
 Elementary  
 General Shop  
 Following tools may be purchased singly or in sets:  
 Background tools (assorted)  
 Tap Bevelers  
 Pear Shaders  
 Turn Backs  
 Veiners, Barkers  
 Camouflage  
 Foxtail  
 Dotflare  
 Mulefoot  
 Stops  
 Seeder  
 Sun Burst  
 Basket Weave  
 Acorn
- Stamp, Leather; Number (see: Die, Letter #1250; Number #1255)**
- 4580 Stand, Auto safety (2 ton)**  
 Auto and Power Mechanics: beginning, advanced  
 2 ton capacity adjustable 15"-22"; with 10" base.
- 4585 Stand, Auto safety (7 ton)**  
 Auto and Power Mechanics: beginning, advanced  
 Adjustable 20"-30".
- 4590 Staple Remover**  
 General Shop
- 4595 Stapler, Hand**  
 Drafting: beginning, advanced  
 General Shop  
 Graphic Arts: beginning, advanced  
 8½"; throat depth 4"; staples; pins; tacks; desk model; open  
 channel load takes full strip of 210 standard staples.

- 4600 Stapler, Saddle**  
 General Shop  
 Graphic Arts: beginning, advanced  
 Throat depth 8"; handles full size 11" x 17" sheets; attaches to table or bench.
- 4605 Stilts, Kiln**  
 Elementary  
 For supporting pottery while firing and glazing; assortment #1, #2, #3, #4, #5.
- 4610 Stool, Instructor's**  
 Drafting: beginning, advanced  
 Swivel stool; with 17" x 16" thick foam rubber seat and adjustable, padded back rest; metal seat pan; with casters; height adjustable 28" to 34"; all welded, 1" tubular steel construction with chrome plated footring; (to be used with alternate teacher's desk, standing #1165).
- 4615 Stool, Student's, Adjustable**  
 Drafting: beginning, advanced  
 General Shop  
 Metalworking: beginning, advanced  
 14" square pressed-wooded seat with back; seat perforated for ventilation; stool is all welded non-breakable construction; legs taper out to insure against tripping; legs punched to permit 3" height adjustment; seat height without adjustment, 26"; (to be used with #4670).  
 or: 14" square pressed-wooded seat with back; seat perforated for ventilation; stool all welded, non-breakable construction; casters on legs; legs punched to permit 3" height adjustment; seat height without adjustment 18"; (to be used with alternate drafting table specifications #4670).
- 4620 Stop, Bench**  
 General Shop  
 To fit 3/4" hole.
- 4625 Storage Unit, Clay**  
 Ceramics: beginning, advanced  
 Portable; of birch plywood, lined with galvanized steel; hinged top; bottom fitted with heavy duty casters; outside dimensions 24" x 24" x 28 1/2"H.  
 Storage Unit, Sheet plastics (see: Cabinet, Sheet plastics storage #0610).
- 4635 Straight Edge, Parallel ruling**  
 Drafting: advanced  
 Transparent plastic edges.
- 4640 Strap, Battery**  
 Auto and Power Mechanics: beginning, advanced  
 12"L; heavy duty.

- 4650 String Holder, Cone**  
 Graphic Arts: beginning, advanced  
 2½ lb. cord.
- 4655 Strip heater**  
 Elementary  
 General Shop  
 Plastics: beginning, advanced  
 23" minimum length; 110V, 250 watts; switch and pilot light.
- 4660 Surfacer (single surface planer)**  
 General Shop  
 Woodworking: advanced  
 12" x 5" capacity; floor model; with enclosed metal base; with infeed and speed control; with clutch; motor driven; motor: 3 HP, 60 cycles, 220V, 3-phase; with switch and overload protection.  
 or: 18" or 20" capacity; floor model with enclosed metal base; with infeed and speed control with clutch and motor driven; and with sectional top infeed rolls and chip breaker; motor: 5 HP, 60 cycles, 220V, 3-phase with switch and overload protection.
- 4665 Table, Blueprint**  
 General Shop  
 24" x 60"; with drawer.
- 4670 Table, Drafting**  
 Drafting: beginning, advanced  
 General Shop  
 Metalworking: beginning, advanced  
 Woodworking: beginning, advanced  
 Overall size approximately 38" x 28" x 39"H; material either wood or metal; 4 post type; drafting surface maple top with zinc-plated steel end cleats, 28½" x 28½", adjustable height with fixed reference surface 10" x 28½". Board storage unit holds 6 boards up to 20" x 26", hardboard dividers, overall size approximately 11" x 28" x 23"; six-drawer storage unit for instruments and material storage, equipped with master-keyed locks, overall unit size approximately 11" x 28" x 23", all drawers 9"W x 3½"H x 17"L. (To be used with 4615).  
 or: Overall size approximately 37½" x 48" x 29"H; material of wood; 4 post type; drafting surface maple top with zinc-plated steel end cleats, size 36" x 48", adjustable height to 60°; six-drawer storage unit for instruments and material storage, equipped with master-keyed locks, overall unit size approximately 11" x 28" x 23", all drawers 9"W x 3½"H x 17"L; no board storage unit. (To be used with alternate 4615).
- 4675 Table, Finishing**  
 Woodworking: beginning, advanced

1 1/4" x 24" x 60" plywood top; covered with 22 gauge galvanized steel folded over and fastened underneath; heavy maple frame; 3/4" shelf with backstop.

**4680 Table, General purpose**

Graphic Arts: beginning, advanced

Table cabinet; heavy gauge steel; finished olive green or grey; hardwood top; sliding doors with nylon bearings and master-keyed cylinder lock; 30"D x 33"H in 5 or 6 foot lengths.

**4685 Table, Opaquing**

Graphic Arts: beginning, advanced

Beginning: adjustable light table; machine steel straight edges on 4 sides; non-glare glass; working area of 10" x 25".

Advanced: adjustable light table; 2 straight edges mounted on roller-bearing chains, right angles to each other; scales calibrated in 1/32"; 3-way fluorescent light system; working area 24" x 36".

**4690 Table, Overhead projector**

Auto and Power Mechanics: beginning, advanced

Ceramics: beginning, advanced

Drafting: beginning, advanced

Electricity-Electronics: beginning, advanced

Elementary

General Shop

Graphic Arts: beginning, advanced

Metalworking: beginning, advanced

Plastics: beginning, advanced

Woodworking: beginning, advanced

Portable; 26"H for stand-up height operation; 1 shelf near base; electrical accessory U.L. approved, 20', #16 3-wire cord with double receptacle; mounted on 4 casters, 2 with braking mechanism.

**4695 Table, Pilot press**

Graphic Arts: beginning, advanced

Holds press, type chases and supplies; top covered with stainproof micarta; 24" x 48" x 31".

**4700 Table, Planning**

Drafting: advanced

72" x 30" x 30"H; 1" OD cold rolled steel tubing legs with non-marring feet; steel locking device for each leg; laminated plastic top with aluminized plastic edge strip around perimeter of table top.

**4705 Table, Casting**

Ceramics: beginning, advanced

Top of 1" wood; crossmembers of aluminum; waste tray catches excess slip; removable for easy cleaning; welded angle-iron construction; 8' x 2' x 32"H.

- 4715 Table, Spraying**  
Woodworking: advanced  
Top constructed of 2" x 8" fir; glued and cut to 50" diameter; Lazy Susan bearing attached to underside; construct two stands, one 24"H and one 8"H.
- 4720 Table, Typewriter**  
Graphic Arts: beginning, advanced  
Heavy weight table; lever control retractable casters; non-skid top; spring action drop leaves; 48½" x 25" x 26".
- 4725 Tachometer**  
Auto and Power Mechanics: advanced  
Tach-dwell meter; 6-12-24V; 0-5000 RPM; 2 ranges; scales for 4, 6 and 8 cylinder engines.
- 4730 Tanks, Film development**  
Graphic Arts: beginning, advanced  
For roll film from 16mm to 120-620 size; reel adjustable for various sizes and with ratchet feature.
- 4735 Tank, Agitated storage**  
Ceramics: beginning, advanced  
Made of heavy carbon steel, porcelain lined; with agitator shaft and stirrers of stainless steel; tank size 42" x 42"; 50 RPM stirrer shaft; 1 HP motor; approximately 240 gal. capacity.
- 4740 Tank, Hot boiling**  
Auto and Power Mechanics: advanced
- 4745 Tank, Parts cleaning, Solvent**  
Auto and Power Mechanics: beginning, advanced  
Fusible link safety cover; flexible metal flush hose; 1/3 HP; pumping unit @ 65 gal./min.; oil filter; removable sludge trays off-on pilot light; casters; 40 gal. capacity.
- 4750 Tank, Storage, Slip**  
General Shop
- 4755 Tap and Die, Machine screw (set)**  
Metalworking: beginning, advanced  
Including the following sizes: 4 x 36, 6 x 32, 8 x 32, 10 x 24, 10 x 32, 12 x 24, ¼ x 20.
- 4760 Tap and Die, NC (U.S. standard) (set)**  
Auto and Power Mechanics: beginning, advanced  
Electricity-Electronics: beginning, advanced  
General Shop  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
1 each—taper, plug, and bottoming tap plus one die in following

sizes:  $\frac{1}{4}$ " x 20,  $\frac{5}{16}$ " x 18,  $\frac{3}{8}$ " x 16,  $\frac{7}{16}$ " x 14, and  $\frac{1}{2}$ " x 13;  
complete with die stock and tap wrench.

**4765 Tap and Die, NF (S.A.E.) (set)**

Auto and Power Mechanics: beginning, advanced

Electricity-Electronics: beginning, advanced

General Shop

Metalworking: beginning, advanced

Plastics: beginning, advanced

1 each—taper, plug, and bottoming tap plus one die in following  
sizes:  $\frac{1}{4}$ " x 28,  $\frac{5}{16}$ " x 24,  $\frac{3}{8}$ " x 24,  $\frac{7}{16}$ " x 20, and  $\frac{1}{2}$ " x 20;  
complete with die stock and tap wrench.

**4770 Tap and Die, Pipe (set)**

Auto and Power Mechanics: beginning, advanced

Electricity-Electronics: beginning, advanced

Metalworking: beginning, advanced

Tap, die, and reamer for following pipe sizes:  $\frac{1}{8}$ ",  $\frac{1}{2}$ ",  $\frac{3}{4}$ ", and 1".

**4775 T Bevel, Sliding**

Drafting: advanced

Elementary

Plastics: beginning, advanced

Woodworking: beginning, advanced

6"; iron handle.

**4780 Template, Architectural**

Drafting: advanced

House-plan and plumbing template; scale:  $\frac{1}{4}$ " = 1'0" and  $\frac{1}{8}$ " =  
1'0"; size 5" x 7" x .030; non-discoloring plastic.

**4785 Template, Electronic**

Drafting: advanced

NASA standard electrical drafting templates; size  $5\frac{1}{4}$ " x 8" x .060;  
non-discoloring plastic.

**4790 Template, Isometric circle**

Drafting: advanced

38 ellipses from  $\frac{1}{8}$ " to  $1\frac{9}{16}$ "; .040 thick; non-discoloring plastic.

**4795 Template, Isometric circle (large)**

Drafting: advanced

25 ellipses  $1\frac{1}{2}$ " to 2" in increments of  $\frac{1}{8}$ "; 2" to 7" in increments  
of  $\frac{1}{4}$ "; .080 thick; non-discoloring plastic.

**4800 Template, Large circle**

Drafting: advanced

Circle and radius master; 36 circles from  $\frac{3}{64}$ " to 1" in diameter;  
with 24 semi-circles ranging from 1" diameter to  $7\frac{1}{2}$ " diameter; size  
 $7\frac{1}{2}$ " x 10" x .080; non-discoloring plastic.

- 4805 Template, Nuts and bolts**  
 Drafting: advanced  
 Contains elevation views of socket head, flat head, and fillister head, cap screws, American standard hex head and bolts, and socket head stripper bolts including end screws; drill point and countersink cut out for angles of 82°, 90°, 100°, 118°, and 135°; size 5" x 10-7/16" x .030"; non-discoloring plastic.
- 4810 Tension Tester, Core**  
 Metalworking: advanced
- 4815 Tester, Battery cell**  
 Auto and Power Mechanics: beginning, advanced  
 (Battery-Starter Tester) ammeter range 0-400 Amps; 3 Voltmeter scales, 0-16, 0-8, 0-4 V; 6 and 12 V systems; with test leads and stand.
- 4820 Tester, Coil and condenser**  
 Auto and Power Mechanics: advanced  
 6-12-24 V; portable; fused.
- 4825 Tester, Distributor**  
 Auto and Power Mechanics: advanced  
 1/4 HP distributor drive operating from idle to 6000 RPM; 12" diameter strobe light rings graduated in divisions of 1°; precision meters (2% full deflection); tachometer 0-3000 distributor RPM; dwell meter 0-45° for 6 and 8 cylinder distributor, 0-90° for 4 cylinder distributors; vacuum pump (up to 21"H); condenser tester.
- 4830 Tester, Guided bend**  
 Plastics: advanced  
 Maximum rated ram force 10,000 lbs.; stroke 5"; capacity 3/8" x 2" cross section; ram radius 3/4" (cyanided); roller diameter 1 1/2" (cyanided).
- 4835 Tester, Hardness**  
 Metalworking: advanced  
 Plastics: advanced  
 Bench; Rockwell system of regular hardness tests 10 to 150 kg. and superficial tests 3 to 45 kg.  
 Plastics: requires M scale—1/4" ball, 10-100 kg loads; R scale, 1/2" ball, 10-60 kg loads.
- 4840 Tester, Neon lamp type**  
 General Shop  
 90-550V AC-DC.
- 4845 Tester, Radiator pressure**  
 Auto and Power Mechanics: beginning, advanced  
 Plugger action; to fit all cars; test radiator caps and cooling system;

heavy die cast body; steel latching gears; high quality pump; easy to read gauge.

**4850 Tester, Transistor**

Electricity-Electronics—beginning, advanced  
Short, leakage, and forward current tests.

**4855 Tester, Tube**

Electricity-Electronics: beginning, advanced  
General Shop  
Mutual conductance type.

**4860 Testing Machine, Tensile**

Plastics: advanced  
Maximum rated capacity 40,000 lbs.; stroke 4"; tow socket 1½"D x 1¾"W; handle 18"L toggle action.

**4865 Testing Machine, Universal**

Plastics: advanced  
Tests properties of tensile, compression, shear, transverse, hardness, and modulus of elasticity; materials: metal, wood, plastics, ceramics, cements, fasteners, and fabrics; 5" ram travel; 12" precision read-out gauge; overall 34"L x 12"W x 11"H; maximum rated capacity 40,000 lbs.; maximum specimen size (with standard jaws): 5/8" x 1½" x 10"; jaw socket 1½"D x 1¾"W at front 30° included angle x 3"L; maximum clearing width between jaws 6 5/8"; handle 18"L with toggle action; material of welded steel; self-containing hydraulic ram unit.

**4870 Thermoforming Press, Vacuum (large)**

Plastics: beginning, advanced  
Approximate maximum sheet size 24" x 36"; 220V, 3-phase heaters; vacuum pump and surge tank minimum capacity 5 gal.; automatic or semi-automatic cycles.

**4875 Thermoforming Press, Vacuum (medium)**

General Shop  
Plastics: advanced  
Approximate maximum sheet size 16" x 16"; 220V, single-phase heater; vacuum and pressure pump and tanks.

**4880 Thermoforming Press, Vacuum (small)**

Elementary  
Plastics: beginning, advanced  
Approximate maximum sheet size 8" x 8"; 110V heater; manual vacuum pump.

**4885 Thermometer, Photographic**

Graphic Arts: beginning, advanced  
Tank and tray thermometer; pivoted spring clip; scale from 30°F to 140°F, in 2 increments; 4 7/8"L.

- 4890 Threading Tool, Lathe**  
Metalworking: advanced  
For formed cutters; V-thread
- 4895 Throwing Ribs, Wood (set)**  
Ceramics: beginning, advanced  
Hand formed, rubbed walnut; with finger holes for easy handling;  
3 shapes.
- 4900 Timer, Interval**  
Plastics: beginning, advanced  
120 minute capacity by seconds.
- 4905 Timer, Photographic (electric)**  
Graphic Arts: beginning, advanced  
Luminous universal timer; marked with phosphorescent numbers;  
time from 1 sec. to 60 min.; automatically controls enlarger ex-  
posures; built-in electric buzzer; outlet receptacle is controlled by  
selector switch, makes or breaks circuit at zero. Properly grounded  
for safe use.
- 4910 Timer, Photographic (spring wound)**  
Graphic Arts: beginning, advanced  
30 minute photographic bell timer; times in minutes up to 30  
minutes.
- 4915 Tongs, Blacksmith, Curved lip**  
General Shop  
Metalworking: beginning, advanced  
To hold rounds. 20"L.
- 4920 Tongs, Crucible**  
General Shop  
17"L.
- 4925 Tongs, Pick-up**  
General Shop  
Metalworking: beginning, advanced  
Flat lips, 24"L.
- 4930 Tool, Drag link and shock arm**  
Auto and Power Mechanics: advanced
- 4935 Tool Holder, Lathe (left hand)**  
Auto and Power Mechanics: beginning, advanced  
Metalworking: beginning, advanced  
To fit tool post of lathe orderd.
- 4940 Tool Holder, Lathe (right hand)**  
Auto and Power Mechanics: beginning, advanced  
Metalworking: beginning, advanced  
To fit tool post of lathe ordered.

- 4945 Tool Holder, Lathe (straight)**  
 Auto and Power Mechanics: beginning, advanced  
 Metalworking: beginning, advanced  
 To fit tool post of lathe ordered.
- 4950 Torch, Gas**  
 General Shop  
 Metalworking: beginning, advanced  
 Natural gas and air. (Must conform to ASA standards.)
- 4955 Torch, Propane (kit)**  
 Auto and Power Mechanics: Advanced  
 General Shop  
 With assorted tips for heating and soldering.
- 4960 Tracer**  
 General Shop  
 Styus for leather.
- 4965 Trammel Points**  
 General Shop  
 Metalworking: beginning, advanced  
 Woodworking: beginning, advanced  
 Hardened points plus pencil holder to be attached to straight stick.
- 4970 Transformer, Bell**  
 General Shop  
 Primary: 110-115V AC; Secondary: 6, 12, and 18V.
- 4975 Transformer, Step-down**  
 Auto and Power Mechanics: advanced
- 4980 Transformer, Step-up**  
 Auto and Power Mechanics: advanced  
**Transmission Maintenance Set (See: Automatic Transmission Tool #0075).**
- 4985 Tray, Photographic**  
 Graphic Arts: beginning, advanced  
 Hard rubber; non-corrosive; slip-proof; specially reinforced rims and bottoms; used interchangeably for all photographic processes without danger to prints or negatives; 11" x 14".
- 4990 Triangle, 30°-60° (8")**  
 Drafting: beginning  
 General Shop  
 Graphic Arts: beginning, advanced  
 Woodworking: beginning, advanced  
 Acrylic plastic; .080" thick; with finger lifts.

- 4995 Triangles, 30°-60° (10" and 12")**  
 Drafting: advanced  
 One each 10" and 12"; acrylic plastic; .080" thick; with finger lifts.
- 5000 Triangle, 45° (6")**  
 Drafting: beginning  
 Graphic Arts: beginning, advanced  
Drafting: acrylic plastic; .080" thick; with finger lifts.  
Graphic Arts: stainless steel; solid center with lifting knob.
- 5005 Triangle, 45° (8")**  
 Drafting: advanced  
 General Shop  
 Woodworking: beginning, advanced  
 Acrylic plastic; .080" thick; with finger lifts.
- 5010 Triangle, 45° (12")**  
 Drafting: advanced  
 Acrylic plastic; .080" thick; with finger lifts.
- 5015 Triangle, Adjustable (10")**  
 Drafting: advanced  
 Transparent acrylic plastic; .100" thick; graduated to 1/2°; numbered every 10° from 0° to 45°; magnifier setting.
- 5020 Triangle, Chalkboard, 30°-60°**  
 Drafting: beginning, advanced  
 General Shop  
 24" hardwood; with magnets, holding knob and hanger hole.
- 5025 Triangle, Chalkboard, 45°**  
 Drafting: beginning, advanced  
 Hardwood; with magnets, holding knob and hanger hole.
- 5030 Triangle, Kiln**  
 Elementary  
 For supporting pottery when firing and glazing; assortment #1, #2, #3, #4, #5.
- 5035 Trimmer, Paper**  
 Graphic Arts: beginning, advanced  
 Guides adjust to any position; blade hook for safety; ruled in 1/2" squares; 24" x 24" table.
- 5040 Trivets**  
 Ceramics: beginning, advanced  
 General Shop  
 Heat resistant; stainless steel; two types: one complete in itself, other is bolted to firing rack.

- 5045 Trowel, Foundry**  
 General Shop  
 Metalworking: advanced
- 5050 Trowel, Square, Molder's**  
 General Shop
- 5055 Trowel, Taper (heart) and leaf, Molder's**  
 General Shop
- 5060 Truck, Bindery**  
 Graphic Arts: advanced  
 All metal; 4 pivoting shelves; ball bearing rubber wheels for complete maneuverability; 28" x 40".
- 5065 Truck, Welding cylinder**  
 Auto and Power Mechanics: advanced  
 General Shop  
 Metalworking: beginning, advanced  
 Plastics: advanced  
 Size appropriate to gas bottle size.
- 5070 T Square**  
 Drafting: beginning, advanced  
 General Shop  
 Graphic Arts: beginning, advanced  
 Woodworking: beginning, advanced  
 Fixed head; hardwood head and blade; with transparent plastic edges along upper and lower blade; with hang hole; minimum size 24".
- 5075 Tumbler, Lapidary**  
 Elementary  
 Steel drum; 25 lb. capacity; 1/4 HP motor; 115V AC, 60-cycle, single-phase; complete with cord and plug.  
 Turning Tool (set) (See: Wheel Turning Tool #5245)  
 Turning Tools, Metal lathe (set) (See: Tool Holder, Lathe #4935-#4945).
- 5080 Tweezers, Bevel point**  
 General Shop
- 5085 Tweezers, Type**  
 General Shop  
 Graphic Arts: beginning, advanced  
 4 1/2"; fine point; nickel plated.
- 5090 Type (assorted sizes and styles—see listing—next page)**  
 General Shop  
 Graphic Arts: beginning, advanced

**FONTS OF FOUNDRY TYPE, SPACES AND QUADS RECOMMENDED FOR GRAPHIC ARTS**

Size	Roman				Square Serif				Sans Serif				Spaces & Quads		
	Oldstyle	OS Italic	Mod.	Mod. It.	Text	Reg.	Italic	Reg.	Italic	Reg.	Italic	Script	Decorative	No. of Fonts	No. of Fonts
6 pt.	2	2	2	2		2	2	2	2	2	2			10	
8	2	2	2	2		2	2	2	2	2	2			10	
10	2	2	2	2		2	2	2	2	2	2			10	
12	2	2	2	2	2	2	2	2	2	2	2		2	10	
14	2	2	2	2	2	2	2	2	2	2	2		2	12	
18	2	2	2	2	2	2	2	2	2	2	2		2	12	
24	2	2	2	2	2	2	2	2	2	2	2		2	12	
30															
36	2	2	2	2	2	2	2	2	2	2	2		2	12	
48	2		2			2	2	2	2	2	2		2	10	
72	2		2			2	2	2	2	2	2		2	10	
Wood	2					2	2	2	2	2	2		2	10	
8 line	1					1									
10	1					1									
12	1					1									
15	1					1									

Plus 1 font per student of monotype, for basic instruction.

**FONTS OF FOUNDRY TYPE, SPACES AND QUADS RECOMMENDED FOR GENERAL SHOP**

Size	Roman				Square Serif				Sans Serif				Spaces & Quads		
	Oldstyle	OS Italic	Mod.	Mod. It.	Text	Reg.	Italic	Reg.	Italic	Reg.	Italic	Script	Decorative	No. of Fonts	No. of Fonts
10	1	1	1	1		1	1	1	1	1	1			10	

**5095 Typesetter, Linecasting**

Graphic Arts: advanced

Tape operated; single distribution; 3 main magazines; selectro-matic quadder, mold cooler and metal feeder; 220V AC.

**5100 Typesetter, Photo-headsetter**

Graphic Arts: advanced

Sets type and lettering to 175 point sizes; projection system permits 200% enlargement to 400% reduction from a single film font; develops inside the machine; condense, expand, blackslant or italicize to varying degrees; 2800 variations in sizes, slants, and proportions are possible from a single film font.

**5105 Typewriter, Electric**

Graphic Arts: advanced

Writing line 13"; paper width 15½"; suitable for all office and printing needs; stationary carriage and removable ball of type that moves across the page; selection of different type faces available.

**5110 Typewriter, Standard**

Graphic Arts: beginning

Standard keyboard; pica or elite type (school should specify size and type face); 12" carriage.

**Vacuum Forming Machine (See: Thermoforming Press, Vacuum (small) #4880).**

**5115 Vacuum Printing Frame**

Graphic Arts: advanced

17" x 21" working area; vacuum pump; 110V, 60-cycle motor; gauge; vacuum release valve.

**Valve Seat Grinder (See: Grinder, Valve #1995)**

**Valve Refacer (See: Refacer, Valve #3615)**

**5120 V Block and Clamps (set)**

Metalworking: beginning, advanced

Plastics: beginning, advanced

**5125 Veiner, Leather stamp**

Elementary

**5130 Vise, Angle, Drill**

Metalworking: beginning, advanced

Capacity of opening 2¼" (beginning); capacity of opening 3" (advanced).

**5135 Vise, Bench, Drill**

General Shop

Metalworking: beginning, advanced

Woodworking: beginning, advanced

Capacity of opening 3".

- 5140** **Vise, Machinist's bench**  
 Auto and Power Mechanics: beginning, advanced  
 General Shop  
 Metalworking: beginning, advanced  
 Swivel base; 3" jaw; 4 3/4" opening.
- 5145** **Vise, Mitre**  
 Woodworking: beginning, advanced
- 5150** **Vise, Pin (set)**  
 Metalworking: beginning, advanced  
 Range 0" to .125" minimum.
- 5152** **Vise, Pipe**  
 Metalworking: beginning, advanced
- 5155** **Vise, Sheet Metal**  
 General Shop  
 Smooth jaw; 3" opening.
- 5160** **Vise, Swivel**  
 General Shop  
 2" jaw; rapid positioning.
- 5165** **Vise, Woodworker's**  
 Elementary  
 General Shop  
 Portable; clamp-on type; for miscellaneous use other than regular work bench vise.
- 5170** **Ware Truck**  
 Ceramics: beginning, advanced  
 Welded angle-iron construction; rubber-tired swivel casters; 8 shelves  
 22" x 28".
- 5175** **Wedging Boards**  
 Ceramics: beginning  
 22" x 15" x 14"H; or 12" x 15" x 2"T hard plaster bat.
- 5180** **Wedging Table**  
 Ceramics: beginning, advanced  
 General Shop
- 5185** **Welder, Arc**  
 Auto and Power Mechanics: advanced  
 General Shop  
 Metalworking: beginning, advanced  
 Plastics: advanced  
 AC/DC. (Must conform to ASA standards.)

- 5190 Welder, MIG**  
Metalworking: advanced
- 5195 Welder, Spot**  
Electricity-Electronics: beginning, advanced  
Metalworking: beginning, advanced
- 5200 Welder, Spot (portable)**  
General Shop  
220V; 10' power cable; with standard tongs.
- 5205 Welder, TIG**  
Metalworking: advanced
- Welding Helmet (See: Helmet, Welding #2145)**
- 5220 Welding Outfit, Oxy-acetylene**  
Auto and Power Mechanics: advanced  
General Shop  
Metalworking: beginning, advanced  
Plastics: advanced  
Including regulators, torch, set of tips, cutting attachment and set of tips: twin hose.
- 5225 Welding Screen, Portable**  
Auto and Power Mechanics: advanced  
General Shop  
Back 6' x 6'; wings 3'. Tubular frame construction; replaceable fireproof curtains. Hinged wings.
- 5230 Welding Unit, Plastics**  
Plastics: beginning, advanced  
Hand welder and tacker; 110V; assorted tips; air regulator and pressure gauges; carrying case.
- 5235 Wheel Alignment Set**  
Auto and Power Mechanics: advanced  
Gauges for: all magnetic—*toe in*, *caster angle*, *camber angle*, *Easterking pin angle*; turntable set; trammel bar; tirescriber; etc.
- 5240 Wheel Balancer**  
Auto and Power Mechanics: advanced  
(On the car); 1¼ HP, 7500 RPM, 110V AC motor; spins wheel over 100 MPH; quick action brake; foot motor control; wheel adapter for 13"-16" wheels.
- Wheel Dresser (see: Dresser, Abrasive wheel #1320)**
- 5245 Wheel Turning Tool (set)**  
Ceramics: beginning, advanced  
Set of 6 different shapes for working on the potter's wheel for turning down plaster or clay pieces; length of tools 9¼".

- 5250 Wire Cutter and Stripper**  
General Shop
- 5255 Wrench, Adjustable end (6")**  
Auto and Power Mechanics: beginning, advanced  
Electricity-Electronics: beginning, advanced  
General Shop  
Graphic Arts: beginning, advanced  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
 $\frac{3}{4}$ " maximum opening; forged steel; satin-chrome finish.
- 5260 Wrench, Adjustable end (8")**  
Auto and Power Mechanics: beginning, advanced  
Elementary  
General Shop  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
Woodworking: beginning  
 $\frac{15}{16}$ " maximum opening; forged steel; satin-chrome finish.
- 5265 Wrench, Adjustable end (10")**  
Auto and Power Mechanics: beginning, advanced  
General Shop  
Metalworking: advanced  
Plastics: beginning, advanced  
 $1\frac{1}{8}$ " maximum opening; forged steel; satin-chrome finish.
- 5270 Wrench, Adjustable end (12")**  
Auto and Power Mechanics: beginning, advanced  
General Shop  
Metalworking: advanced  
Plastics: beginning, advanced  
 $1\frac{5}{16}$ " maximum opening; forged steel; satin-chrome finish.
- 5275 Wrench, Adjustable end (monkey)**  
Auto and Power Mechanics: beginning, advanced
- 5280 Wrench, Allen key (hex) (set)**  
Auto and Power Mechanics: beginning, advanced  
Electricity-Electronics: beginning, advanced  
General Shop  
Metalworking: beginning, advanced  
Plastics: beginning, advanced  
Woodworking: beginning, advanced  
Set including 11 standard sizes, #1 $\frac{1}{2}$ -#12.

- 5285 Wrench, Box (set)**  
 Metalworking: beginning, advanced  
 Range of openings:  $\frac{3}{8}$ "-1"; satin-chrome finish.
- 5290 Wrench, Combination box and open end (set)**  
 Auto and Power Mechanics: beginning, advanced  
 General Shop  
 Range of openings:  $\frac{3}{8}$ "-1"; satin-chrome finish.
- 5295 Wrench, Combination box and open end (metric) (set)**  
 Auto and Power Mechanics: beginning, advanced  
 Set of 10; sizes: 6, 8, 9, 10, 12, 13, 14, 15, 17, 19mm; 12 point box-end opening; for foreign cars; satin-chrome finish.
- 5300 Wrench, Deep socket ( $\frac{3}{8}$ " drive) (set)**  
 Auto and Power Mechanics: beginning, advanced  
 8-6 point sockets; sizes  $\frac{3}{8}$ "- $\frac{9}{16}$ " are  $1\frac{3}{4}$ "L; sizes  $\frac{5}{8}$ "- $\frac{13}{16}$ " are  $2\frac{1}{2}$ "L; incremented by 16ths; satin-chrome finish.
- 5305 Wrench, Deep socket ( $\frac{1}{2}$ " drive) (set)**  
 Auto and Power Mechanics: beginning, advanced  
 8-12 point sockets;  $3\frac{1}{4}$ "L; sizes  $\frac{1}{2}$ "- $\frac{15}{16}$ "; incremented by 16ths; satin-chrome finish.
- 5310 Wrench, Drain plug**  
 Auto and Power Mechanics: beginning, advanced  
 Contains common male and female plug sizes for crankcase, transmission, and differential; satin-chrome finish.
- 5315 Wrench, Flare nut (set)**  
 Auto and Power Mechanics: advanced  
 Combination open end and hex flare nut wrenches; sizes:  $\frac{3}{8}$ ",  $\frac{7}{16}$ ",  $\frac{1}{2}$ ",  $\frac{9}{16}$ ",  $\frac{5}{8}$ "; satin-chrome finish.
- 5320 Wrench, Ignition (set)**  
 Auto and Power Mechanics: beginning, advanced  
 General Shop  
 6 open end wrenches; sizes:  $\frac{15}{64}$ ",  $\frac{1}{4}$ ",  $\frac{9}{32}$ ",  $\frac{5}{16}$ ",  $\frac{11}{32}$ ",  $\frac{3}{8}$ "; with kit bag.
- 5325 Wrench, Lug**  
 Auto and Power Mechanics: beginning, advanced
- Wrench, Monkey (see: Wrench, Adjustable end (monkey) #5275)**
- 5330 Wrench, Nutdriver (set)**  
 Electricity-Electronics: beginning, advanced  
 General Shop  
 Set of 8 drivers; sizes:  $\frac{3}{16}$ ",  $\frac{1}{4}$ ",  $\frac{9}{32}$ ",  $\frac{5}{16}$ ",  $\frac{11}{32}$ ",  $\frac{3}{8}$ ",  $\frac{7}{16}$ ",  $\frac{1}{2}$ "; color coded handles.
- 5335 Wrench, Open end (set)**  
 Electricity-Electronics: beginning, advanced

**General Shop**

**Metalworking: beginning, advanced**

**Woodworking: beginning, advanced**

**Double end wrenches; sizes: 1/4"-1"; satin-chrome finish.**

**5340 Wrench, Pipe (10")**

**Auto and Power Mechanics: beginning, advanced**

**General Shop**

**Metalworking: beginning, advanced**

**Heavy duty malleable frame; steel alloy jaws.**

**5345 Wrench, Pipe (14")**

**Metalworking: advanced**

**Heavy duty malleable frame; steel alloy jaws.**

**5350 Wrench, Pipe (18")**

**Auto and Power Mechanics: advanced**

**General Shop**

**Metalworking: advanced**

**Heavy duty malleable frame; steel alloy jaws.**

**5355 Wrench, Socket (1/4" drive) (set)**

**Auto and Power Mechanics: beginning, advanced**

**9-6 point standard sockets, sizes: 3/16"-1/2" by 32nds; 2-8 point standard sockets, 1/4" and 5/16"; 1 spinner handle; 2 extensions, 2" and 6"; 1 ratchet handle; 1 universal joint; satin-chrome finish.**

**5360 Wrench, Socket (3/8" drive) (set)**

**Auto and Power Mechanics: beginning, advanced**

**Electricity-Electronics: beginning, advanced**

**General Shop**

**Graphic Arts: beginning, advanced**

**Metalworking: beginning, advanced**

**Plastics: beginning, advanced**

**Woodworking: beginning, advanced**

**10 piece set; 7 standard sockets, sizes: 3/8"-3/4" by 16ths; 1 flex handle 8 1/2"L; 1 extension 3"L; 1 reversible ratchet handle 7"L; with metal box; satin-chrome finish.**

**5365 Wrench, Socket (1/2" drive) (set)**

**Auto and Power Mechanics: beginning, advanced**

**General Shop**

**Graphic Arts: beginning, advanced**

**Metalworking: beginning, advanced**

**9 piece set; 7 standard sockets, sizes: 3/8"-3/4" by 16ths; 1 extension 5"L; 1 reversible ratchet handle 10 1/4"L; with metal box; satin-chrome finish.**

- 5370 Wrench, Socket (metric) (set)**  
 Auto and Power Mechanics: advanced  
 1/2" drive for foreign cars; 9-12 point sockets, sizes: 9mm to 22mm;  
 2 extensions, 6" and 10"; 1 speeder handle 18"L; 1 flex handle  
 15"L; 1 crossbar; 1 ratchet handle 9 3/4"L; satin-chrome finish.
- 5375 Wrench, Socket, Flex handle (3/8" drive)**  
 Auto and Power Mechanics: advanced  
 7 1/2"L; for use with 3/8" drive socket wrench set; satin-chrome finish.
- 5380 Wrench, Socket, Flex handle (1/2" drive)**  
 Auto and Power Mechanics: advanced  
 16"L; for use with 1/2" drive socket wrench set; satin-chrome finish.
- 5385 Wrench, Socket, Handle extension (3/8" drive) (4")**  
 Auto and Power Mechanics: beginning, advanced  
 For use with 3/8" drive socket wrench set; satin-chrome finish.
- 5390 Wrench, Socket, Handle extension (3/8" drive) (8")**  
 Auto and Power Mechanics: beginning, advanced  
 For use with 3/8" drive socket wrench set; satin-chrome finish.
- 5395 Wrench, Socket, Handle extension (3/8" drive) (set)**  
 Auto and Power Mechanics: beginning, advanced  
 Set of 4; sizes: 3", 6", 10", 20"; for use with 3/8" drive socket wrench  
 set; satin-chrome finish.
- 5400 Wrench, Socket, Handle extension (1/2" drive) (3")**  
 Auto and Power Mechanics: beginning, advanced  
 For use with 1/2" drive socket wrench set; satin-chrome finish.
- 5405 Wrench, Socket, Handle extension (1/2" drive) (8")**  
 Auto and Power Mechanics: beginning, advanced  
 For use with 1/2" drive socket wrench set; satin-chrome finish.
- 5410 Wrench, Socket, Handle extension (1/2" drive) (set)**  
 Auto and Power Mechanics: beginning, advanced  
 Set of 4; sizes: 3", 6", 10", 20"; for use with 1/2" drive socket wrench  
 set; satin-chrome finish.
- 5415 Wrench, Socket, Reversible ratchet handle (1/4" drive)**  
 Auto and Power Mechanics: beginning, advanced  
 Included in Wrench, Socket (1/4" drive) (set) #5360. May be ordered  
 separately; satin-chrome finish.
- 5420 Wrench, Socket, Reversible ratchet handle (3/8" drive)**  
 Auto and Power Mechanics: beginning, advanced  
 General Shop  
 Included in Wrench, Socket (3/8" drive) (set) #5365. May be ordered  
 separately; satin-chrome finish.

- 5425 Wrench, Socket, Reversible ratchet handle (1/2" drive)**  
 Auto and Power Mechanics: beginning, advanced  
 General Shop  
 Included in Wrench, Socket (1/2" drive) (set) #5370. May be ordered separately; satin-chrome finish.
- 5430 Wrench, Socket, Speed handle (1/4" drive)**  
 Auto and Power Mechanics: beginning, advanced  
 16"L; for use with 1/4" drive socket wrench set; satin-chrome finish.
- 5435 Wrench, Socket, Speed handle (3/8" drive)**  
 Auto and Power Mechanics: beginning, advanced  
 16 7/8"L; for use with 3/8" drive socket wrench set; satin-chrome finish.
- 5440 Wrench, Socket, Speed handle (1/2" drive)**  
 Auto and Power Mechanics: beginning, advanced  
 18"L; for use with 1/2" drive socket wrench set; satin-chrome finish.
- 5445 Wrench, Socket, Universal joint attachment (1/4" drive) (set)**  
 Auto and Power Mechanics: advanced  
 For use with 1/4" drive socket wrench set; satin-chrome finish.
- 5450 Wrench, Socket, Universal joint attachment (3/8" drive) (set)**  
 Auto and Power Mechanics: beginning, advanced  
 For use with 3/8" drive socket wrench set; 1 7/8"L; satin-chrome finish.
- 5455 Wrench, Socket, Universal joint attachment (1/2" drive) (set)**  
 Auto and Power Mechanics: beginning, advanced  
 For use with 1/2" drive socket wrench set; 2-5/16"L; satin-chrome finish.
- 5460 Wrench, Tappet (set)**  
 Auto and Power Mechanics: beginning, advanced  
 Set includes 2 each: 7/16" and 1/2", 12" and 9/16", 5/8" and 11/16".
- 5465 Wrench, Torque (3/8" drive)**  
 Auto and Power Mechanics: beginning, advanced  
 General Shop  
 Flexible beam; job molded aluminum handle; easy to read scale; measures foot-pounds or inch-pounds in either direction; 150 ft.-lbs. range in 10 ft.-lbs. divisions or 150 in.-lbs. range in 5 in.-lbs. divisions.
- 5470 Wrench, Torque (1/2" drive)**  
 Auto and Power Mechanics: beginning, advanced  
 Flexible beam; job molded aluminum handle; easy to read scale; measures foot-pounds in either direction; 200 ft.-lbs. range in 10 ft.-lbs. divisions.
- Wrench, Vise-grip (see: Pliers, Vise-grip #3170)**

## AMERICAN STANDARDS FOR SAFETY

(These standards are also included in the preceding general list)

(Special price of complete set, \$190.00)

A2.1-1956 Fire Tests of Building Construction and Materials, Methods of (ASTM E119-55; NFPA 251-1955) .....	1.00
A2.2-1960 Fire Tests of Door Assemblies, Methods of (ASTM E152-58; NFPA 252-1958) .....	1.00
A2.5-1963 Surface Burning Characteristics of Building Materials, Method of Test for (ASTM E84-61; UL 723-1960; NFPA 255-61) .....	1.00
A2.6-1963 Fire Tests of Window Assemblies, Methods of (ASTM E163-60T; UL 9-62)	1.00
A10.1-1951 Manual of Accident Prevention in Construction .....	Out of Print
A10.2-1944 †Building Construction, Safety Code for (Partially revised by A10.4-1963) .....	3.50
A10.4-1963 †Workmen's Hoists, Safety Requirements for (Revision of Section 10, Part XI of A10.2-1944) .....	2.00
★A11.1-1965 Industrial Lighting, Practice for (IES RP 7-1965) .....	.80
A12-1932 †Floor and Wall Openings, Railings, and Toe Boards, Safety Code for .....	2.00
A13.1-1956 Identification of Piping Systems, Scheme for the .....	1.50
A14.1-1959 †Portable Wood Ladders, Safety Code for .....	2.50
A14.2-1956 †Portable Metal Ladders, Safety Code for .....	2.00
A14.3-1956 †Fixed Ladders, Safety Code for .....	2.00
★A17.1-1965 Elevators, Dumbwaiters, and Moving Walks, Safety Code for (Revision and Consolidation of A17.1-1960, A17.1a-1963, and A17.1.13-1962) .....	6.50
A17.2-1960 Elevators, Practice for the inspection of (Inspectors' Manual) .....	4.00
★A17.2a-1965 Addenda to A17.2-1960, sold separately .....	.50
A23.1-1962 School Lighting, Guide for (IES RP3-1962) .....	.50
A39.1-1959 †Window Cleaning, Safety Code for .....	2.00
A85.1-1956 Protective Lighting, Practice for (IES RP10-1956) .....	.50
A90.1-1949 (R1956) Manlifts, Safety Code for .....	1.50
★A113.1-1964 Mechanized Parking Garage Equipment, Safety Code for .....	3.75
A117.1-1961 †Making Buildings and Facilities Accessible to, and Usable by, the Physically Handicapped, Specifications for .....	2.00
A119.1-1963 Plumbing, Heating, and Electrical Systems in Mobile Homes, Installation of .....	1.00
A119.2-1963, Plumbing, Heating, and Electrical Systems in Travel Trailers, Installation of .....	1.00
•	
B7.1-1964 Use, Care, and Protection of Abrasive Wheels, Safety Code for the ...	1.00
B9.1-1964 Mechanical Refrigeration, Safety Code for (ASRE 15-63) .....	3.50
B11.1-1960 †Power Presses, Safety Code for .....	4.00
B15.1-1953 (R1958) Mechanical Power-Transmission Apparatus, Safety Code for ...	3.00
B19-1938 Compressed Air Machinery and Equipment, Safety Code for .....	Out of Print
B20.1-1957 Conveyors, Cableways, and Related Equipment, Safety Code for .....	2.50
B24.1-1963 †Forging and Hot Metal Stamping, Safety Code for .....	2.50
B28.1-1949 (R1959) †Mills and Calenders in the Rubber Industry, Safety Code for	3.00
B30.1-1943 (R1952) Jacks, Safety Code for .....	1.50
B30.2-1943 (R1952) Cranes, Derricks, and Hoists, Safety Code for .....	4.00
B31.1-1955 Pressure Piping, Code for, with addenda B31.1a-1965 (Current except for Sections on Refinery, Oil Transportation, and Refrigeration Piping which are listed below) .....	4.00
★B31.1a-1965 Addenda to B31.1-1955, sold separately .....	.50
B31.3-1962 Petroleum Refinery Piping, with addenda B31.3a-1964 .....	4.00
★B31.3a-1964 Addenda to B31.3-1962, sold separately .....	.50
B31.4-1959 Oil Transportation Piping, with addenda B31.4a-1965 .....	4.00

▲, not yet available; †, quantity prices apply; ★, approved since last price list; R, reaffirmed

ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE

★B31.4a-1965 Addenda to B31.4-1959, sold separately .....	.50	
B31.5-1962 Refrigeration Piping, with addenda B31.5a-1965 .....		4.00
★B31.5a-1965 Addenda to B31.5-1962, sold separately .....	.50	
B31.8-1963 Gas Transmission and Distribution Piping Systems, with addenda B31.8a-1965 .....		4.00
★B31.8a-1965 Addenda to B31.8-1963, sold separately .....	.50	
B56.1-1959 Powered Industrial Trucks, Safety Code for .....		2.00
★B57.1-1965 Compressed Gas Cylinder Valve Outlet and Inlet Connections (CGA V-1-1965) [Agrees with ISO R407] .....		3.00
B65.1-1954 †Controls and Signaling Devices for Graphic Arts Presses, Safety Code for .....		2.00
B71.1-1964 †Power Lawn Mowers, Safety Specifications for .....		2.00
B77.1-1960 †Aerial Passenger Tramways, Safety Code for, with addenda B77.1a- 1963 and B77.1b-1965 .....		4.50
B77.1a-1963 †Addenda to B77.1-1960, sold separately .....	1.00	
★B77.1b-1965 †Addenda to B77.1-1960, sold separately .....	1.00	
B97.1-1963 Household Refrigerators and Freezers, Safety for (UL 250-April, 1963)		.60
●		
★C1-1965 National Electrical Code (NFPA 70-1965) .....		1.00
● C2 — National Electrical Safety Code (NBS Handbook H30):		
C2.1-1941 (R1947) Installation and Maintenance of Electrical Supply Stations, Safety Rules for the (NBS Handbook H31-1940) .....		2.25
C2.2-1941 (R1947)—Revised and replaced by C2.2-1960 .....		
C2.3-1941 (R1947) Installation and Maintenance of Electric Utilization Equipment, Safety Rules for the (NBS Handbook H33-1940) .....		
C2.4-1939 (R1947) Operation of Electric Equipment and Lines, Safety Rules for the (NBS Handbook H34-1938) .....		
C2.5-1940 (R1947) Radio Installations, Safety Rules for (NBS Handbook H35-1939)		
C2.2-1960 Installation and Maintenance of Electric Supply and Communication Lines, Safety Rules for the (NBS H81-1961), including C2.2a-1965, sold separately .....		1.90
★C2.2a-1965 Supplement No. 1 to C2.2-1960, sold separately .....	.15	
★C5.1-1965 Lightning Protection Code (NFPA No. 78-1965) .....		.75
●		
C33.1-1957 Flexible Cord and Fixture Wire, Safety Standard for (UL 62-March- 1957) .....		Out of Print
C33.2-1956 Transformer-Type Arc-Welding Machines, Safety Standard for (UL 551- October-1952) .....		.75
C33.3-1957 Cord Sets and Power-Supply Cords, Safety Standard for (UL 817- December-1955) .....		Out of Print
C33.4-1958 Specialty Transformers, Safety Standard for (UL 506-October-1952).....		.75
C33.5-1956 Wire Connectors and Soldering Lugs, Safety Standard for (UL 486- February-1953) .....		.75
C33.6-1957 Rubber-Covered Wires and Cables, Safety Standard for (UL 44-April- 1956) .....		Out of Print
C33.7-1957 Electrically Heated Pads and Bedding, Safety Standard for (UL 130- December-1954) .....		.75
C33.8-1957 Grounding and Bonding Equipment, Safety Standard for (UL 467-April- 1957) .....		.50
C33.9-1959 Armored Cable, Safety Standards for (UL 4-March-1959) .....		Out of Print
C33.10-1961 Fuseholders, Safety Standards for (UL 512-May-1961) .....		.75
C33.11-1964 Electric Heating Appliances, Safety Standard for (UL 499-June-1962)		.75
C33.12-1964 Electric Space-Heating Equipment, Safety Requirements for (UL 573- December-1962) .....		1.00
★C33.13-1965 Home-Laundry Equipment, Safety Requirements for (UL 560-May- 1963) .....		.80
★C33.14-1965 Room Air Conditioners, Safety Requirements for (UL 484-December- 1961) .....		.60
★C33.15-1965 Flexible Nonmetallic Tubing, Requirements for (UL 3 April-1964) .....		▲
★C33.17-1965 Edison-Base Lampholders, Requirements for (UL 496 May 1964) .....		▲
★C33.18-1965 Cord Reels, Requirements for (UL 355 April-1964) .....		▲
★C33.19-1965 Electrically Illuminated Frames (UL 368 February-1957) .....		▲

★C33.20-1965 Rosettes, Requirements for (UL 351 October-1952) .....	▲
★C33.21-1965 Porcelain Cleats, Knobs, and Tubes, Requirements for (UL 511 October-1946) .....	▲
★C33.22-1965 Protectors for Communication Circuits, Requirements for (UL 491 November-1961) .....	▲
C37.19-1963 †Low-Voltage AC Power Circuit Breakers and Switchgear Assemblies, Safety Requirements for .....	2.00
★C39.5-1964 †Electrical Measuring and Controlling Instrumentation, Electrical Safety Requirements for .....	2.00
●	
D6.1-1961 Manual on Uniform Traffic Control Devices for Streets and Highways ....	2.00
D7.1-1963 †Inspection Requirements for Motor Vehicles, Trailers and Semi-Trailers Operated on Public Highways (Partial revision of D7.1-1956) .....	2.50
D7.2-1963 †Station Requirements for Inspection of Motor Vehicles, Trailers, and Semi-Trailers in Stations Owned and Operated by Regulatory Authority (Partial revision of D7.1-1956) .....	1.50
D7.3-1963 †Station Requirements for Inspection of Motor Vehicles, Trailers, and Semi-Trailers in Stations Appointed and Licensed by Regulatory Authority (Partial Revision of D7.1-1956) .....	1.50
D8.1-1956 Railroad Highway Grade Crossing Protection (AAR Bulletin 5) .....	Out of Print
D10.1-1958 Adjustable Face Traffic Control Signal Head Standards (ITE Technical Report 1-1958) .....	Out of Print
D11.1-1958 Pre-Timed, Fixed Cycle, Traffic Signal Controllers (ITE Technical Report 2-1958) .....	.50
D12.1-1963 Roadway Lighting, Practice for (IES RP 8-1963) .....	1.00
D13.1-1958 Traffic-Actuated Traffic Signal Controllers and Detectors, Specifications for (ITE Technical Report 3-1958) .....	.50
D15.1-1960 †Recording and Measuring Motor Vehicle Fleet Accident Experience, Method of .....	2.00
D15.2-1960 †Recording and Measuring Motor Vehicle Fleet and Passenger Accident Experience, Method of .....	2.00
D16.1-1962 Classification of Motor-Vehicle Traffic Accidents, Manual on .....	1.00
● J6 — Specifications for Rubber Protective Equipment for Electrical Workers:	
J6.1-1950 (R1962) Rubber Insulating Line Hose (ASTM D1050-59) .....	} 1.00
J6.2-1950 (R1952) Rubber Insulator Hoods (ASTM D1049-59) .....	
J6.4-1950 (R1962) Rubber Insulating Blankets (ASTM D1048-59) .....	
J6.5-1962 Rubber Insulating Sleeves (ASTM D1051-59) .....	
J6.6-1964 Rubber Insulating Gloves, Specifications for (ASTM D120-63) (Revision and Consolidation of J6.6-1962 (ASTM D120-59T) and J6.8-1962 (ASTM D1700-59)) .....	
J6.7-1935 (R1962) Rubber Matting (reaffirmation and redesignation of C59.4-1935) (ASTM D178-24) .....	
J6.8-1962 Revised and Consolidated with J6.6-1964 (ASTM D120-63) .....	
●	
K13.1-1961 †Identification of Gas-Mask Canisters, Safety Code for the .....	1.50
K61.1-1960 Storage and Handling of Anhydrous Ammonia, Safety Requirements for the (CGA G-2.1-1960) .....	1.00
●	
L1.1-1956 (R1964) †Textile Safety Code .....	2.00
L14.69-1963 Flammability of Clothing Textiles, Test Method for (AATCC 33-1957; ASTM D1230-61) .....	1.00
● L18 — Specifications for Protective Occupational (Safety) Clothing (American War Standards):	
L18.1-1944 †Leather Aprons .....	Out of Print
L18.2-1944 †Cape Sleeves and Bibs .....	Out of Print
L18.3-1944 †Knee-Length Leggings .....	Out of Print
L18.4-1944 †Leather Coats .....	Out of Print
L18.5-1944 †Leather Overalls .....	Out of Print
L18.6-1944 †Leather Sleeves .....	Out of Print
L18.7-1944 †Welders' Leather Gauntlet Gloves .....	Out of Print
L18.8-1944 †Protective Leather Gloves, Steel-Stapled .....	Out of Print
L18.9-1944 †Asbestos Gloves .....	Out of Print

L18.10-1944 †Asbestos Gloves, Leather Reinforced .....	Out of Print
L18.11-1944 †Asbestos Mittens .....	Out of Print
L18.12-1944 †Asbestos Mittens, Leather Reinforced .....	Out of Print
L18.14-1944 †Asbestos Aprons (Bib Type) .....	Out of Print
L18.15-1944 †Asbestos Cape Sleeves and Bibs .....	Out of Print
L18.16-1944 †Asbestos Leggings (Knee and Hip Length) .....	Out of Print
L18.17-1944 †Asbestos Coats .....	Out of Print
L18.18-1945 †Leather One-Finger Mittens .....	Out of Print
L18.19-1945 †Leather Mittens .....	Out of Print
L18.20-1945 †Asbestos One-Finger Mittens .....	Out of Print
L18.21-1945 †Flame-Resistant Fabric Aprons (Bib Type) .....	Out of Print
L18.22-1945 †Flame-Resistant Fabric Leggings (Knee and Hip Length) .....	Out of Print
L18.23-1945 †Flame-Resistant Fabric Coats .....	Out of Print
L18.24-1945 †Flame-Resistant Fabric Pants .....	Out of Print
L18.25-1945 †Flame-Resistant Fabric Coveralls .....	Out of Print
L18.26-1945 †Flame-Resistant Fabric Spats .....	Out of Print
L18.27-1945 †Leather Spats .....	Out of Print
L18.28-1945 †Asbestos Spats .....	Out of Print
L18.29-1945 †Chemical-Resistant Gloves .....	Out of Print
•	
M2.1-1963 Installing and Using Electrical Equipment in and about Coal Mines, Safety Rules for (BMIC 8227) .....	.25
M11.1-1960 †Wire Ropes for Mines, Specifications for and Use of .....	3.50
M12.1-1946 (R1958) †Construction and Maintenance of Ladders and Stairs for Mines .....	1.50
M13.1-1960 Rock-Dusting Underground Bituminous-Coal and Lignite Mines to Prevent Coal-Dust Explosions, Practice for (BMIC 8001) .....	.50
M24-1932 †Installing and Using Electrical Equipment in Metal Mines, Safety Rules for .....	Out of Print
M28.1-1955 †Safety Procedures for Quarries .....	3.50
•	
N2.1-1960 Radiation Symbol .....	.60
N7.1-1960 †Radiation Protection in Uranium Mines and Mills (Concentrators) .....	3.00
N7.2-1963 †Radiation Protection in Nuclear Fuel Fabrication Plants .....	3.00
•	
O1.1-1954 (R1961) †Woodworking Machinery, Safety Code for .....	2.50
•	
P1.1-1963 †Pulp and Paper Mills, for Safety in .....	2.00
•	

**S3-W-39 †The Effects of Shock and Vibration on Man ..... \$3.50**

This report, a review of the effects of shock and vibration on man, covers a very broad scope. It deals with three problems: (1) the determination of the structure and properties of the human body considered as a mechanical as well as a biological system; (2) the effects of shock and vibration forces on this system; and (3) the protection required by the system under various exposure conditions and the means by which this protection is to be achieved. ASA Sectional Committee on Bioacoustics, S3, recommends dissemination of the report as pertinent background and reference material on human vibration research, until such time as more definitive guidance on permissible vibration exposures can be provided through a standard. Fifty-six pages, 8½ x 11 in., 44 figures, 5 tables, paper cover.

X2.5.17-1954 †Maximum Electrical Leakage of Dictating Machines .....	1.00
•	
Z2.1-1959 †Head, Eye, and Respiratory Protection, Safety Code for .....	3.50

**Z2 Report—The Spectral-Transmissive Properties of Plastics for Use in Eye Protection ..... \$3.50**

48-page, 8½ x 11 inch, 106 charts, 4 tables, heavy paper cover. This report was prepared by a subcommittee on Transmissive Properties of Plastics, and contains ultraviolet, luminous and infrared spectral-transmissive properties and other characteristic data on many of the presently available types of plastics suitable for use in protecting the eyes in industrial and certain other operations.

Z4.1-1955 †Sanitation in Places of Employment, Minimum Requirements for .....	2.00
Z4.2-1942 †Drinking Fountains, Specifications for .....	1.00
Z4.3-1935 Sanitary Privy (Supplement 108 to the Public Health Reports) .....	Out of Print
Z8.1-1961 †Laundry Machinery and Operations, Safety Code for .....	2.00
Z9.1-1951 †Ventilation and Operation of Open-Surface Tanks, Safety Code for .....	2.50
Z9.2-1960 †Design and Operation of Local Exhaust Systems, Fundamentals Governing the .....	5.00
Z9.3-1964 †Design, Construction, and Ventilation of Spray Finishing Operations, Safety Code for the .....	3.00
● <b>Z12 — Dust Explosions:</b>	
Z12.1-1961 Installation and Operation of Pulverized-Fuel Systems, Standard for the (NFPA No. 60-May-1961) .....	.60
Z12.2-1962 Starch Factories, Code for the Prevention of Dust Explosions in (NFPA No. 61A-May-1962) .....	.50
Z12.3-1962 Flour and Feed Mills, Code for the Prevention of Dust Explosions in (NFPA No. 61C-May-1962) .....	.60
Z12.4-1959 Terminal Grain Elevators, Code for the Prevention of Dust Explosions in (NFPA No. 61B-June-1959) .....	.50
Z12.6-1959 (2nd ed) Pulverized Sugar and Cocoa, Standard for the Prevention of Dust Explosions in (NFPA No. 62-June-1959) .....	.40
Z12.7-1959 (2nd ed) Coal Preparation Plants, Standard for the Prevention of Dust Explosions in (NFPA No. 653-June-1959) .....	.50
Z12.9-1959 Spice Grinding Plants, Code for the Prevention of Dust Ignitions in (NFPA No. 656-June-1959) .....	.40
Z12.11-1963 Manufacture of Aluminum Powder, Code for the Prevention of Dust Explosions in the (NFPA No. 651-June-1963) .....	.50
Z12.12-1959 Sulfur Fires and Explosions, Standard for Prevention of (NFPA No. 655-June-1959) .....	.50
Z12.13-1959 Country Grain Elevators, Code for the Prevention of Dust Ignitions in (NFPA No. 64-June-1959) .....	.40
Z12.14-1943 Grain Elevators and Storage Units, Suggested Good Practices for the Application of Suction and Venting for the Control of Dust in (NFPA No. 661-1942) .....	.25
Z12.15-1959 Magnesium Powder or Dust, Code for Explosion and Fire Protection in Plants Producing or Handling (NFPA No. 652-June-1959) .....	.40
Z12.16-1963 Plastic Industry, Code for the Prevention of Dust Explosions in the (NFPA No. 654-June-1963) .....	.75
Z12.18-1959 Confectionery Manufacturing Plants, Code for the Prevention of Dust Explosions in (NFPA No. 657-June-1959) .....	.40
Z12.19-1963 Aluminum, Code for the Processing and Finishing of (NFPA No. 65-June-1963) .....	.50
Z12.20-1962 Woodworking and Wood Flour Manufacturing Plants, Code for the Prevention of (NFPA No. 664-May-1962) .....	.60
★Z12.21-1964 Prevention of Dust Explosions in industrial Plants, Fundamental Principles for the (NFPA No. 63-1964) .....	.50
★Z12.22-1964 Pneumatic Conveying Systems for Handling Feed, Flour, Grain and Other Agricultural Products (NFPA No. 66-1964) .....	.60

Z16.1-1954 (R1959) †Recording and Measuring Work Injury Experience, Method of	2.00
Z16.2-1962 †Method of Recording Basic Facts Relating to Nature and Occurrence of Work Injuries	4.00
Z20.3-1957 Places of Outdoor Assembly, Grandstands and Tents (NFPA No. 102-May-1957)	.50
Z21.30-1964 Gas Appliances and Gas Piping, Installation Requirements for (NFPA 54-1964)	.75
Z24.22-1957 †Measurement of Real-Ear Attenuation of Ear Protectors at Threshold, Method for	2.00

**Z24-X2 †The Relations of Hearing Loss to Noise Exposure ..... \$3.50**

64 pp. 8½ x 11 in., 18 figures, 8 tables, paper cover. This report by Exploratory Subcommittee Z24-X-2 of Sectional Committee Z24 on Acoustics, Vibration, and Mechanical Shock analyzes the noise problem. Representing one of the most comprehensive surveys ever made, it tells what factors enter into the industrial loss of hearing; how much certain types of noise affect hearing; what allowance to make for recovery of hearing after noise exposure; what loss of hearing to expect of different age groups.

Z26.1-1950 †Safety Glazing Materials for Glazing Motor Vehicles Operating on Land Highways, Safety Code for, with Addenda Z26.1a-1964	3.00
★Z26.1a-1964 †Addenda to Z26.1-1950, sold separately	1.00
Z33.1-1961 Installation of Blower and Exhaust Systems for Dust, Stock, and Vapor Removal or Conveying (NFPA 91-1961; NBFU 91-1961)	.50
Z35.1-1959 †Industrial Accident Prevention Signs, Specifications for	2.00
• Z37 — Allowable Concentration of Toxic Dusts and Gases:	
Z37.1-1941 †Carbon Monoxide, Allowable Concentration of	1.50
Z37.2-1941 †Hydrogen Sulfide, Allowable Concentration of	1.50
Z37.3-1941 †Carbon Disulfide, Allowable Concentration of	1.50
Z37.4-1960 †Benzene, Maximal Acceptable Concentration of	2.00
Z37.6-1948 †Manganese, Allowable Concentration of	1.50
Z37.7-1943 †Chromic Acid and Chromates, Allowable Concentration of	1.50
Z37.8-1943 †Mercury, Allowable Concentration of	1.50
Z37.10-1960 †Xylene, Maximal Acceptable Concentration of	2.00
Z37.11-1943 †Lead and Certain of Its Inorganic Compounds, Allowable Concentration of	1.50
Z37.12-1960 †Toluene, Maximal Acceptable Concentration of	2.00
Z37.13-1962 †Nitrogen Dioxide, Maximal Acceptable Concentration of	2.00
Z37.14-1944 †Methanol, Allowable Concentration of	1.50
Z37.16-1944 †Formaldehyde, Allowable Concentration of	Out of Print
Z37.17-1957 †Maximum Acceptable Concentration of Carbon Tetrachloride	1.50
Z37.18-1949 †Methyl Chloride, Allowable Concentration of	Out of Print
Z37.19-1946 †Trichlorethylene, Allowable Concentration of	Out of Print
Z37.23-1962 †Methylene Chloride, Maximal Acceptable Concentration of	2.00
Z37.27-1961 †p-Dichlorobenzene, Maximal Acceptable Concentration of	2.00
• Z41 — Specifications for Protective Occupational Footwear (American War Standards):	
Z41.1-1944 †Men's Safety-Toe Shoes	} 2.50
Z41.3-1944 †Men's Conductive Shoes	
Z41.4-1944 †Men's Explosives-Operations (Non-sparking) Shoes	
Z41.5-1944 †Men's Electrical-Hazard Shoes	
Z41.6-1944 †Men's Foundry (Molder's) Shoes	
Z41.2-1944 †Women's Safety-Toe (Oxford) Shoes	Out of Print
Z41.7-1944 †Women's Safety-Toe (High) Shoes	Out of Print
Z41.8-1944 †Women's Explosives-Operations (Non-sparking) Shoes	Out of Print
Z41.9-1944 †Women's Conductive Shoes	Out of Print
•	
Z43-1941 †Grinding, Polishing, and Buffing Equipment Sanitation	2.50

Z48.1-1954 Portable Compressed Gas Containers to Identify the Material Contained, Method for Marking .....	.25
Z49.1-1958 Welding and Cutting, Safety in .....	2.00
Z50.1-1947 †Bakery Equipment, Safety Code for .....	3.00
Z53.1-1953 †Marking Physical Hazards and the Identification of Certain Equipment, Safety Color Code for .....	2.00
•	
Z54.1-1963 Non-Medical X-Ray and Sealed Gamma-Ray Sources, Safety Standard for, Part 1—General (NBS Handbook H93) .....	.30
Z54.2-1958 Industrial Beta-Ray Sources, Safe Design and Use of (NBS Handbook 66-1958) .....	.20
Z66.1-1964 †Minimize Hazards to Children from Residual Surface Coating Materials, Specifications to .....	1.50
Z95.1-1963 Oil Burning Equipment, Installation of (NFPA No. 31-1963) .....	.75
Z96.1-1963 Oil-Fired Central Furnaces, Standards for Safety (UL 727 August-1961, 3rd ed) .....	1.25
★Z106.1-1965 Liquefied Petroleum Gases, Storage and Handling of (NFPA 58-1965) .....	.75
•	
★Z112.1-1965 Portable Fire Extinguishers, Installation of (NFPA No. 10-1965) (Partial revision of Z112.1-1964) .....	.60
★Z112.2-1965 Maintenance and Use of Portable Fire Extinguishers, Practice for the (NFPA No. 10A-1965) (Partial revision of Z112.1-1964) .....	.60

## AMERICAN STANDARDS ON CONSUMER GOODS

(These standards are also included in the preceding general list)

(Special price of complete set, \$100.00)

A14.1-1959 †Portable Wood Ladders, Safety Code for .....	2.50
A14.2-1956 †Portable Metal Ladders, Safety Code for .....	2.00
A119.1-1963 Plumbing, Heating and Electrical Systems in Mobile Homes, Installation of .....	1.00
A119.2-1963 Plumbing, Heating and Electrical Systems in Travel Trailers, Installation of .....	1.00
•	
B38.1-1955 †Food-Storage Volume and Shelf Area of Automatic Household Refrigerators, Method of Computing (NEMA HRF 1-1953) .....	1.50
B38.2-1956 †Household Electric Refrigerators (Mechanically Operated), Test Procedures for (NEMA HRF 2-1955) .....	2.00
B38.3-1955 Methods of Rating and Testing Home Freezers (NEMA FH1-55; ASHRAE 13-1955) .....	1.50
B71.1-1964 †Power Lawn Mowers, Safety Specifications for .....	2.00
B97.1-1963 Household Refrigerators and Freezers, Safety for (UL 250-April, 1963) .....	.60
•	
★C1-1965 National Electrical Code (NFPA 70-1965) .....	1.00
★C5.1-1965 Lightning Protection Code (NFPA No. 78-1965) .....	.75
★C18.1-1965 †Dry Cells and Batteries, Specifications for [IEC 86-1, 86-2, and 86-3] .....	3.00
C33.1-1957 Flexible Cord and Fixture Wire, Safety Standard for (UL 62-March-1957) .....	Out of Print
C33.7-1957 Electrically Heated Pads and Bedding, Safety Standard for (UL 130-December-1954) .....	.75
C33.11-1964 Electric Heating Appliances, Safety Standard for (UL 499 June-1962) .....	.75
C33.12-1964 Electric Space-Heating Equipment, Safety Requirements for (UL 573 December-1962) .....	1.00
★C33.13-1965 Home-Laundry Equipment, Safety Requirements for (UL 560 May-1963) .....	.80
★C33.14-1965 Room Air Conditioners, Safety Requirements for (UL 484 December-1961) .....	.60

★C33.18-1965 Cord Reels, Requirements for (UL 355 April-1964) .....	▲
★C33.19-1965 Electrically Illuminated Frames (UL 368 February-1957) .....	▲
C70.1-1953 Household Automatic Electric Flatirons, Standard for (NEMA DA 1-1954) .....	1.00
C71.1-1964 Household Electric Ranges, Standard for (NEMA ER1-1962) .....	1.00
C72.1-1949 Household Automatic Electric Storage Type Water Heaters, Standard for (NEMA WH1-1949) .....	.90
C91.1-1958 Residential Wiring, Requirements for .....	.50
●	
● L12 — Definitions (Including Tolerances) for Filling Materials for Bedding and Upholstery:	
L12.1-1946 †Cotton .....	} 2.00
L12.2-1946 †Wool .....	
L12.4-1946 †Miscellaneous .....	
●	
★L14.12-1965 Terms Relating to Textile Materials, Definition of (ASTM D123-65) .....	1.00
● L22 — Textile Fabrics, Performance Requirements:	
†Volume I (1960 Edition) .....	Out of Print, Under Revision
Included:	
Women's and Girls' Textile Fabrics	
Men's and Boys' Textile Fabrics	
Home Furnishing Fabrics	
Performance Requirements for Special Characteristics and Finishes	
Permanent Labels, Detachable Tags, and Certification of Fabrics or Products	
Definition of Terms	
†Volume II (1960 Edition) .....	Out of Print, Under Revision
Test Methods to be Used with the L22 Standards	
● L24 — Institutional Textiles, Performance Requirements for:	
(Part VIII, Test Methods, is a necessary companion volume to any or all of the fol- lowing L24 Parts, except Part V and Part VI. Part VIII therefore must be purchased with any or all of the following L24 Parts, except Part V and Part VI.) (Special price of complete L24-1963 series, \$10.00)	
L24.1.1-through L24.1.9-1963 †Part I, Institutional Furnishing Fabrics .....	2.00
L24.2.1-through L24.2.12-1963 †Part II, Utility Textiles .....	2.50
L24.3.1-through L24.3.8-1963 †Part III, Uniform Fabrics .....	2.00
L24.4.1-through L24.4.11-1963 †Part IV, Work Clothes Fabrics .....	2.50
L24.5.1-1963 †Part V, Permanent Labels, Detachable Tags and Certification of Fabrics or Products .....	1.50
L24.6.1-1963 †Part VI, Definitions of Textile Terms for Institutional Textiles .....	1.50
L24.7.1-1963 †Part VII, Special Characteristics and Finishes for Institutional Textiles	1.50
†Part VIII, Test Methods to be Used with Parts I, III, IV, and VII .....	1.50
● Photography:	
PH1.28-1957 †Photographic Films for Permanent Records, Specifications for .....	2.00
★PH1.31-1965 †Brittleness of Photographic Film, Method for Determining the .....	2.00
PH2.7-1955 †Photographic Exposure Computer .....	2.00
PH2.12-1961 †General-Purpose Photographic Exposure Meters (Photoelectric Type)	2.50
PH2.15-1964 †Automatic Exposure Controls for Cameras .....	2.00
PH2.20-1960 †Sensitometric Exposure of Artificial-Light-Type Color Films, Method for the .....	2.00
PH2.22-1961 †Safety Time of Photographic Darkroom Illumination, Procedure for Determining the (Revision of Z38.8.13-1950) .....	1.00
PH3.13-1958 †Focal Length Marking of Lenses .....	1.00
PH3.27-1949 (R1957) †Lantern Slide Projectors, Specifications for .....	1.00
PH3.28-1945 (R1957) †Slidefilm Projectors, Specifications for .....	1.00
PH3.29-1958 †Apertures and Related Quantities Pertaining to Photographic Lenses, Methods of Designating and Measuring .....	1.00
PH3.31-1958 †Photographic Enlargers, Methods for Testing .....	1.50
PH3.32-1959 †Exposure-Time Markings for Shutters Used in Still Cameras .....	1.00
PH3.33-1959 †Aperture Markings for Still Camera Lenses .....	1.00
PH3.34-1959 †Projectors for Opaque Materials, Specifications for .....	1.00
★PH3.41-1965 †Slide and Slidefilm Projection, Practice for .....	2.00
PH4.1-1962 †Manual Processing of Black-and-White Photographic Films and Plates, Methods for .....	2.00

PH4.6-1961 †Converting Weights and Measures for Photographic Use, Method for ....	1.00
PH4.7-1958 †Thermometers for Photographic Processing, Specifications for .....	1.00
PH4.25-1958 †Photographic Laboratory Spring-Driven Timers, Specification for .....	1.00
PH4.28-1961 †Total Hardness of Water for Photographic Processing, Method for Determining the .....	1.00
PH4.29-1962 †Manual Processing of Black-and-White Photographic Paper, Methods for (Revision of Z38.8.6-1949) .....	1.50
PH4.30-1962 †Residual Thiosulfate and Thionates in Processed Photographic Papers, Method for Determining (Revision of Z38.8.25-1950) .....	1.50
PH5.1-1959 †Microfilm Readers for 16mm and 35mm Film on Reels, Specifica- tions for .....	1.00
PH5.5-1961 †Micro-Opaques, Specifications for [ISO R60] .....	2.00
PH5.7-1964 †Micro-Opaque Readers, Specifications for .....	1.00
Z38.7.5-1948 †Printing and Projection Equipment, Methods of Testing .....	1.00
●	
X2.1.1-1951 †Desks and Tables for General Office Use, Dimensions of .....	1.00
X2.1.4-1954 †Posture Chair, Definition of .....	1.00
X2.2.1-1955 (R1964) Redesignated and Reaffirmed as X4.4-1955 .....	
X2.4.1-1951 (R1964) Redesignated and Reaffirmed as X4.3-1951 .....	
X2.4.2-1954 †Non-Carbonized, Single-Ply, Adding-Machine Paper Rolls, Specifica- tions for .....	1.00
X2.4.3-1956 Ring, Memo and Post Binder Sheet Sizes and Ring and Post Data .....	.50
X2.5.20-1960 †Office-Type Dictating Equipment, Minimum Requirements for .....	1.00
X4.3-1951 (R1964) †Index Cards and Record-Keeping Cards, Size Designation for (Redesignation of X2.4.1-1951) .....	1.00
X4.4-1955 (R1964) Basic Sheet Sizes and Standard Stock Sizes for Bond Papers and Index Bristols (Redesignation of X2.2.1-1955) .....	.50
●	
● Z21 — Gas-Burning Appliances:	
● Domestic Gas Ranges:	
Z21.1.1-1964 Free Standing Units, Volume I, Approval Requirements for, with Addenda Z21.1.1a-1965 .....	2.45
★Z21.1.1a-1965 Addenda to Z21.1.1-1964, sold separately .....	.45
Z21.1.2-1964 Built-in Domestic Cooking Units, Volume II, Approval Requirements for, with Addenda Z21.1.2a-1965 .....	2.50
★Z21.1.2a-1965 Addenda to Z21.1.2-1964, sold separately .....	.50
●	
Z21.2-1949 (R1962) Gas Hose for Portable Gas Appliances, Listing Requirements on	1.00
Z21.5.1-1962 Type I Clothes Dryers, Volume I, Approval Requirements for, with Addenda Z21.5.1a-1965 .....	2.20
★Z21.5.1a-1965 Addenda to Z21.5.1-1962, sold separately .....	.20
Z21.6-1962 Domestic Gas-Fired Incinerators, Approval Requirements for, with Addenda Z21.6a-1963 and Addenda Z21.6b-1965 .....	2.55
Z21.6a-1963 Addenda to Z21.6-1962, sold separately .....	.30
★Z21.6b-1965 Addenda to Z21.6-1962 and Z21.6a-1963, sold separately .....	.25
★Z21.8-1965 Domestic Gas Conversion Burners, Requirements for Installation of .....	.75
Z21.9-1962 Hot Plates and Laundry Stoves, Approval Requirements for .....	2.00
★Z21.11.1-1965 Vented Room Heaters, Approval Requirements for Gas-Fired Room Heaters, Volume I .....	2.00
Z21.11.2-1962 Unvented Room Heaters, Approval Requirements for Gas-Fired Room Heaters, Volume II, with Addenda Z21.11.2a-1964 and Addenda Z21.11.2b- 1965 .....	2.65
Z21.11.2a-1964 Addenda to Z21.11.2-1962, sold separately .....	.40
★Z21.11.2b-1965 Addenda to Z21.11.2-1962 and Addenda Z21.11.2a-1964, sold sepa- rately .....	.25
Z21.12-1937 (R1963) Draft Hoods, Listing Requirements for .....	.50
Z21.13-1964 Gas-Fired Steam and Hot Water Boilers, Approval Requirements for, with Addenda Z21.13a-1965 .....	2.30
★Z21.13a-1965 Addenda to Z21.13-1964, sold separately .....	.30
Z21.16-1964 Gas Unit Heaters, Approval Requirements for, with Addenda Z21.16a- 1965 .....	2.30
★Z21.16a-1965 Addenda to Z21.16-1964, sold separately .....	.30

Z21.17-1962 Domestic Gas Conversion Burners, Listing Requirements for, with Addenda Z21.17a-1964 and Addenda Z21.17b-1964 .....	2.75
Z21.17a-1964 Addenda to Z21.17-1962, sold separately .....	.50
★Z21.17b-1965 Addenda to Z21.17-1962, and Addenda Z21.17a-1964, sold separately .....	.25
★Z21.19-1965 Refrigerators Using Gas Fuel, Approval Requirements for .....	2.00
Z21.24-1963 Metal Connectors for Gas Appliances, Listing Requirements for, with Addenda Z21.24a-1965 .....	1.25
★Z21.24a-1965 Addenda to Z21.24-1963, sold separately .....	.25
★Z21.28-1965 Portable Gas Baking and Roasting Ovens, Approval Requirements for .....	2.00
Z21.30-1964 Gas Appliances and Gas Piping, Installation Requirements for (NFPA No. 54-1964) .....	.75
Z21.38-1957 (R1962) Installation of Gas Conversion Burners in Domestic Ranges, Requirements for .....	.25
Z21.39-1957 (R1962) Gas Conversion Burners for Domestic Ranges, Listing Requirements for .....	2.00
Z21.42-1963 Gas-Fired Illuminating Appliances, Approval Requirements for .....	1.50
Z21.43-1963 Unvented Gas-Fired Infrared Radiant Heaters, Approval Requirements for, with Addenda Z21.43a-1964 and Addenda Z21.43b-1965 .....	2.40
Z21.43a-1964 Addenda to Z21.43-1963, sold separately .....	.10
★Z21.43b-1965 Addenda to Z21.43-1963 and Z21.43a-1964, sold separately .....	.30
Z21.44-1963 Gas-Fired Gravity and Fan Type Sealed Combustion System Wall Furnaces, Approval Requirements for, with Addenda Z21.44a-1964 and Addenda Z21.44b-1965 .....	2.60
Z21.44a-1964 Addenda to Z21.44-1963, sold separately .....	.25
★Z21.44b-1965 Addenda to Z21.44-1963 and Z21.44a-1964, sold separately .....	.35
Z21.45-1964 Flexible Connectors of Other Than All-Metal Construction for Gas Appliances, Listing Requirements for, with Addenda Z21.45a-1965 .....	1.60
★Z21.45a-1965 Addenda to Z21.45-1964, sold separately .....	.10
Z21.46-1964 Gas-Fired Kettles, Steam Cookers and Steam Generators, Approval Requirements for, with Addenda Z21.46a-1965 .....	2.10
★Z21.46a-1965 Addenda to Z21.46-1964, sold separately .....	.10
Z21.47-1964 Gas-Fired Gravity and Forced Air Central Furnaces, Approval Requirements for, with Addenda Z21.47a-1965 .....	2.25
★Z21.47a-1965 Addenda to Z21.47-1964, sold separately .....	.25
Z21.48-1964 Gas-Fired Gravity and Fan Type Floor Furnaces, Approval Requirements for, with Addenda Z21.48a-1965 .....	2.25
★Z21.48a-1965 Addenda to Z21.48-1964, sold separately .....	.25
Z21.49-1964 Gas-Fired Gravity and Fan Type Vented Wall Furnaces, Approval Requirements for, with Addenda Z21.49a-1965 .....	2.35
★Z21.49a-1965 Addenda to Z21.49-1964, sold separately .....	.35
Z21.50-1964 Vented Decorative Gas Appliances, Approval Requirements for, with Addenda Z21.50a-1965 .....	2.20
★Z21.50a-1965 Addenda to Z21.50-1964, sold separately .....	.20
•	
Z26.1-1950 †Safety Glazing Materials for Motor Vehicles Operating on Land Highways, Safety Code for, with Addenda Z26.1a-1964 .....	3.00
Z26.1a-1964 †Addenda to Z26.1-1950, sold separately .....	1.00
Z60.1-1959 Nursery Stock .....	.50
Z61.1-1963 †Home Cooking and Baking Utensils, Dimensions, Tolerances, and Terminology for .....	2.00
Z66.1-1964 †Minimize Hazards to Children from Residual Surface Coating Materials, Specifications to .....	1.50
Z80.1-1964 †First Quality Glass Ophthalmic Lenses, Prescription Requirements for .....	2.00
Z96.1-1963 Oil-Fired Central Furnaces, Standards for Safety (UL 727 August-1961, 3rd ed) .....	1.25
★Z112.1-1965 Portable Fire Extinguishers, Installation of (NFPA No. 10-1965) (Partial revision of Z112.1-1964) .....	.60
★Z112.2-1965 Maintenance and Use of Portable Fire Extinguishers, Practice for the (NFPA No. 10A-1965) (Partial revision of Z112.1-1964) .....	.60