

MACHINING - 057

Shaping parts by any combination of the following work fields: Abrading (051), Boring (053), Chipping (052), Milling-Turning-Planing (055), Sawing (056), and Shearing (054).

Methods Verbs

Forming

Machines	Tools	Equipment	Work Aids
Collet Making Machine Multiple-Spindle Screw Machine Turret Lathe	Machinist Handtools		Blueprints Holding Fixtures Job Orders Micrometers Tooling Instructions Vernier Calipers

Operates three stage machine to cut and chamfer outside diameters of watch collets, face them to specified thickness, drill hairspring holes, and saw slots in collets.

Inserts section of wire into machine and starts machine that turns head and shank of wire to form screw, threads, and cuts screw to specified length, and slots head.

Constructs model fo multielement lens, using optical grinders, lappers, polishers, edgers, centerers, and threaders on plane, curved, and edged surfaces of glass.

Supervises and coordinates activities of workers engaged in setting up and operating gear hobbing machines to machine splines or gear teeth on metal blanks.

Sets up and operates turret lathe to perform series of machining operations, such as turning, facing, boring, and tapping, on metal workpiece, such as machine, tool, or die part.

Typical Occupations: Shop Machinist; Tool-and-Die Maker; Shop Supervisor; Job Setter.

CHAPTER 4

WORK FIELDS

Work Fields, a component of Work Performed, are categories of technologies that reflect how work gets done and what gets done as a result of the work activities of a job: the purpose of the job. There are 96 Work Fields identified for use by the USES for classification of all jobs in the economy in terms of what gets done on the job.

Work Fields range from the specific to the general and are organized into homogeneous groups, based on related technologies or objectives, such as the movement of materials, the fabrication of products, the use of data, and the provision of services. Each Work Field is identified by a three-digit code, a brief descriptive title, and a definition. In many cases, a comment is included which enlarges upon the definition and limits or extends the application of the Work Field. Also, cross-references are frequently included which distinguish one Work Field from other related Work Fields.

Following the definition is a list of methods verbs which illustrate the application of the Work Field. This list is not intended to be exhaustive, but merely representative, of the ways in which the objective of the Work Field can be accomplished. Note that the methods verbs listed as examples do not include those appearing in the title or definition for that Work Field, inasmuch as they are implicit in the Work Field. Some methods verbs are used as illustrative examples in more than one Work Field; however, their meanings may differ in the various listings.

It is important to understand that the concept of Work Fields involves consideration not only of the overall objective or purpose of a job, but also how the objective is attained; that is, the means by which the objective of the job is met. MTEWA are instruments and devices used by the worker to achieve the objective of the job. MTEWA are directly related to, and help describe, specific methods verbs.

The job of a worker who performs in a first-line supervisory or helper capacity is assigned the same Work Field(s) as that of the jobs of the workers supervised or helped, because the technological objectives are the same as those of the workers supervised or helped. It is incorrect to assign Work Field 295-Administering to such supervisory jobs; or 011-Material Moving to helper jobs. For Things jobs that are machine-related, the Work Field is based upon what the machine does. For example, the job of a worker who tends a machine that smooths and polishes bores of shotgun barrels is assigned Work Field 051-Abrading. Prefixes, such as **un** or **re**, are implicit in the definition of a Work Field. For example, **Material Moving** includes unloading and removing; **Filling-Packing-Wrapping** includes unpacking, unwrapping, etc.

COMBINATION WORK FIELDS

Combination Work Fields are general categories of Work Fields that contain combinations of Work Fields to cover jobs involving various technologies. For example, Structural Fabricating-Installing-Repairing includes combinations of such specific Work Fields as Abrading, Nailing, Riveting, and Welding. However, in some situations, the analyst may elect to assign the specific Work Fields, rather than a combination Work Field, to express the overall objective of a job.

PROCEDURE FOR ASSIGNING WORK FIELDS

The core of the procedure for assigning Work Fields is the sentence analysis technique. The object of such assignment is to formulate sentences containing words illustrative of the Work Field(s). The resulting sentence must provide an integrated picture that answers the "how" and "why" sufficiently for classification purposes. The sentence analysis technique is outlined in Chapter 6.

Experienced analysts have found the following steps to be helpful in assigning Work Fields.

- Step 1. Study the job-worker situation to determine the method(s) specific to the accomplishment of the overall job objective. As has been pointed out in this section, many verbs are used to signify specific methods which relate to quite different objectives. Thus it is essential to check the particular use of the verb against the definition of the Work Field which is supposed to include it. The listing of methods verbs accompanying each Work Field definition is by no means exhaustive, and it is entirely possible that the analyst will use others. However, make certain that they have methodological value in a particular context and are not simply explanatory or reflective of the end results of the job. The analyst must always keep in mind that Work Fields are broader in scope than the intermediate objectives reflected in individual work element statements in a description of a job. The total of all the intermediate objectives contained in the Description of Tasks should lead to an understanding of the assigned Work Field(s).
- Step 2. Select the Work Field that most adequately encompasses the specific methodology of the job-worker situation. Although it is possible to select more than one Work Field for almost any job-worker situation (e.g., nearly all job-worker situations involving Things require Material Moving in addition to whatever else is done), this will not be necessary if the primary Work Field is adequately comprehensive. However, there will be instances where it is necessary to assign more than one Work Field. When a combination Work Field best reflects the overall objective of the job, specific Work Fields encompassed by the Combination Work Field are not assigned.
- Step 3. Record in Item 8 of the JAR the code number(s) and title(s) of the Work Field(s) selected that reflect(s) the analysis of the data.

ALPHABETICAL LISTING OF WORK FIELDS

051	Abrading	272	Litigating
291	Accommodating	004	Logging
295	Administering	057	Lubricating
298	Advising-Counseling	033	Machining*
002	Animal Propagating	091	Masoning
211	Appraising	011	Material Moving
262	Artistic Painting-Drawing	121	Mechanical Fabricating
141	Baking-Drying	131	Melting
071	Bolting-Screwing	292	Merchandising-Sales
053	Boring	055	Milling-Turning-Planing
153	Brushing-Spraying	005	Mining-Quarrying-Earth Boring
034	Butchering-Meat Cutting	143	Mixing
094	Caulking	136	Molding
132	Casting	072	Nailing
052	Chipping	232	Numerical Recording-Recordkeeping
031	Cleaning	095	Paving
161	Combing-Napping	201	Photographing
263	Composing-Choreographing	003	Plant Cultivating
146	Cooking-Food Preparing	134	Pressing-Forging
142	Crushing-Grinding	191	Printing
233	Data Processing	147	Processing-Compounding*
135	Die Sizing	293	Protecting
202	Developing-Printing	014	Pumping
144	Distilling	251	Researching
242	Drafting	073	Riveting
111	Electrical-Electronic Fabricating-Installing Repairing*	152	Saturating
154	Electroplating	056	Sawing
244	Engineering	145	Separating
183	Engraving	171	Sewing-Tailoring
297	Entertaining	054	Shearing-Shaving
182	Etching	083	Soldering-Brazing
007	Excavating-Clearing-Foundation Building	162	Spinning
062	Fastening	021	Stationary Engineering
041	Filling-Packing-Wrapping	221	Stock Checking
061	Fitting-Folding	102	Structural Fabricating-Installing-Repairing*
089	Flame Cutting-Arc Cutting-Beam Cutting	264	Styling
063	Gluing-Laminating	032	Surface Finishing
294	Health Caring-Medical	243	Surveying
133	Heat Conditioning	281	System Communicating
001	Hunting-Fishing	296	Teaching
151	Immersing-Coating	013	Transporting
192	Imprinting	166	Tufting
282	Information Giving	101	Upholstering*
212	Inspecting-Measuring-Testing	231	Verbal Recording-Record Keeping
271	Investigating	164	Weaving
165	Knitting	081	Welding
092	Laying-Covering	163	Winding
241	Laying Out	261	Writing

* Combination Work Fields

MPSMS GROUPS

MATERIALS AND PRODUCTS

- 300 PLANT FARM CROPS
- 310 HORTICULTURAL SPECIALTIES, FOREST TREES, AND FOREST PRODUCTS
- 320 ANIMALS
- 330 MARINE LIFE
- 340 RAW FUELS AND NONMETALLIC MINERALS
- 350 RAW METALLIC MINERALS
- 360 STRUCTURES
- 370 ORDNANCE
- 380 FOOD STAPLES AND RELATED
- 390 FOOD SPECIALTIES
- 400 TOBACCO PRODUCTS
- 410 TEXTILE FIBERS AND RELATED
- 420 FABRICS AND RELATED
- 430 TEXTILE PRODUCTS
- 440 APPAREL
- 450 LUMBER AND WOOD PRODUCTS
- 460 FURNITURE AND FIXTURES
- 470 PAPER AND ALLIED PRODUCTS
- 480 PRINTED AND PUBLISHED PRODUCTS
- 490 CHEMICAL AND ALLIED PRODUCTS
- 500 PETROLEUM AND RELATED PRODUCTS
- 510 RUBBER AND MISCELLANEOUS PLASTIC PRODUCTS
- 520 LEATHER AND LEATHER PRODUCTS
- 530 STONE, CLAY, AND GLASS PRODUCTS
- 540 METAL, FERROUS AND NONFERROUS
- 550 FABRICATED METAL PRODUCTS, EXCEPT ORDNANCE, MACHINERY, AND
TRANSPORTATION EQUIPMENT
- 560 MACHINERY AND EQUIPMENT, EXCEPT ELECTRICAL
- 580 ELECTRICAL AND ELECTRONIC MACHINERY, EQUIPMENT, AND SUPPLIES
- 590 TRANSPORTATION EQUIPMENT
- 600 MEASURING, ANALYZING, AND CONTROLLING INSTRUMENTS: PHOTOGRAPHIC,
MEDICAL, AND OPTICAL GOODS; AND WATCHES AND CLOCKS
- 610 MISCELLANEOUS FABRICATED PRODUCTS

SUBJECT MATTER

- 700 ARCHITECTURE AND ENGINEERING
- 720 MATHEMATICS AND PHYSICAL SCIENCES
- 730 LIFE SCIENCES
- 740 SOCIAL SCIENCES
- 750 ARTS AND LITERATURE

SERVICES

- 850 TRANSPORTATION SERVICES
- 860 COMMUNICATION SERVICES
- 870 ELECTRIC, GAS, AND SANITARY SERVICES
- 880 MERCHANDISING SERVICES
- 890 GENERAL BUSINESS, FINANCE, INSURANCE, AND REAL ESTATE SERVICES
- 900 DOMESTIC, BUILDING, AND PERSONAL SERVICES
- 910 AMUSEMENT AND RECREATION SERVICES
- 920 MEDICAL AND OTHER HEALTH SERVICES
- 930 EDUCATIONAL, LEGAL, MUSEUM, LIBRARY, AND ARCHIVAL SERVICES
- 940 SOCIAL, EMPLOYMENT, AND SPIRITUAL SERVICES
- 950 REGULATION, PROTECTION, AND RELATED GOVERNMENT SERVICES
- 960 MISCELLANEOUS SERVICES