

Federal Wage System Job Grading Standard For Wood Crafting, 4605

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WORK COVERED

This standard covers nonsupervisory work which involves making and repairing high-grade wooden items such as fine cabinetry and furniture. The work involves shaping and contouring surfaces; precise, intricate joining and decorating; skilled use of the full range of woodworking tools, machines, and techniques; and application of extensive knowledge of the appearance, durability, strength, and machining characteristics of a wide range of wood and wood substitutes.

WORK NOT COVERED

The following kinds of work are not covered by this standard:

- ! Constructing, altering, and repairing buildings and other structures including, for example, constructing and repairing frames, floors, walls, and shelves, and installing windows, doors, and completed or readymade cabinetry;
- ! Constructing, altering, or repairing furniture which does not require shaping and contouring surfaces, intricate joining and decorating (such as inlays, scrollwork, and friezes), and extensive knowledge of a wide range of wood and wood substitutes;
- ! Sanding, finishing or painting, or upholstering furniture;
- ! Operating one or several woodworking machines on a production basis to make items of limited variety and complexity;
- ! Making and repairing boxes and crates;
- ! Constructing and repairing wharves and staging;
- ! Making wooden production patterns for manufacturing metal or plastic items of complex design;
- ! Planning and laying out drydock cradles; and
- ! Assembling, repairing, or molding metal and plastic items.

TITLES

Jobs graded by this standard are to be titled *Wood Crafter*.

GRADE LEVELS

This standard describes only one wood crafter level. Jobs which differ substantially from the skill, knowledge, and other work requirements in the grade level described in this standard may be graded either above or below this grade. Because progression to the grade described in the standard is most frequently from intermediate wood crafter jobs, from formal apprentice training programs, or through other Woodworking Family occupations such as carpenter, a lower level has not been described.

HELPER AND INTERMEDIATE JOBS

Helper and intermediate wood crafter jobs are graded by the [Job Standards for Trades Helper](#) and the job grading standard for [Intermediate Jobs](#).

WOOD CRAFTER, GRADE 10

General: Grade 10 wood crafters make and repair high grade wooden items such as cabinetry, furniture, orthopedic devices, and decorative woodwork for use in homes, offices, planes, boats, ships, and for medical and other uses. These items have intricate, precise and fancy features and details such as curved and contoured surfaces, marquetry, book-matched panels, scrollwork, friezes, inlays, and complex joints. Grade 10 wood crafters plan and lay out their work from specifications, blueprints, sketches, and oral instructions. They select, cut, turn, shape, join, bond, fit, assemble, and decorate wooden materials and parts, using the full range of hand and power woodworking tools, machines, and techniques. They take into consideration the tooling, durability, cost, strength, and appearance characteristics of a variety of softwoods, hardwoods, plywood, veneers, and wood substitutes when planning and completing his projects.

Wood crafters work with little or no guidance after receiving an assignment. A supervisor reviews completed work for compliance with plans and specifications and for timeliness.

Skill and Knowledge: Grade 10 wood crafters must have the ability to make a wide variety of wooden items with unique and intricate shapes and designs, and with a number of interlocking parts which must precisely fit and join.

Grade 10 wood crafters must have considerable planning and layout ability. They must be able to interpret and check plans, blueprints, and sketches; visualize the item to be made; compute, check, and insure the consistency of the dimensions of a number of interlocking parts; make templates and patterns; select appropriate machines, tools, and techniques; and plan the

sequence of the work. Wood crafters must have knowledge of and skill in using a wide range of woodworking machining techniques to set up, adapt, and use appropriate machines, tools, and accessories to accomplish projects like those described above. They must be able to do precise, intricate work with power shapers, mortises, tenoners, jointers, routers, lathes, and various other woodworking tools, accessories, and machines. They must be able to devise fixtures, templates, and jigs to hold or guide items in woodworking machinery. They must be able to use machines to do work for which they may not have been specifically designed. They must be able to assemble or make patterns for nonstandard cutter edge shapes. Wood crafters must have skill in developing curved, contoured, and shaped surfaces and features such as inlays, scrollwork, marquetry, carving, miniature parts, friezes, matched panels, matched contours, and complex joints. They must have skill in laminating, veneering, plastic overlaying, steam bending, and grain matching. Wood crafters must have extensive knowledge of the various properties and characteristics of a wide variety of hardwoods, softwoods, plywood, veneers, wood substitutes, glueing and bonding agents, and other woodworking materials.

For example, they must know the appearance characteristics of woods and wood substitutes, including their grain, porosity, luster, tendency to warp, reaction to polishing and finishing. They must know the strength and durability of wood and wood substitutes, including their hardness, elasticity, ability to support weight, and their resistance to weather, water, vapors, and chemicals.

They must also know how strength is affected by various machining, bonding, and joining techniques and by defects in the wood. Crafters must know the machining properties of woods and wood substitutes such as their splitting, chipping, and splintering tendencies; the speed at which different materials and different grades of the same material can be machined and the smoothness that can be expected; and the degree of difficulty involved in machining small or unusual shapes from various materials. Based on their knowledge of woodworking materials, wood crafters must have the ability to select or recommend use of materials that will give the items to be made the required strength, durability, fit, match, and high-grade appearance.

Responsibility: Grade 10 wood crafters receive assignments through work orders, plans, specifications, sketches, and oral discussions. They lay out their work by interpreting plans and specifications or sketches; devising any needed plans and patterns; selecting appropriate combinations of materials, machines, accessories, processes, and techniques; and planning the complete sequence of work. When certain machines, materials, and equipment are not available or will not produce the desired results, they determine which others to use. They consult with their supervisor or the customer when they propose changes that will affect the item's strength, durability, appearance, or cost.

Grade 10 crafters are responsible for minimizing waste and cost when laying out patterns on materials, when selecting and substituting materials, and when planning or changing the sequence of his work to cut time. They advise customers on matters such as errors in their plans or dimensions, problems of fit or installation, and selection or substitution of materials.

Grade 10 wood crafters perform their work with little guidance or review. Their supervisor may occasionally observe the work in progress to insure timely accomplishment, and visually check completed work only for compliance with plans, specifications, and user needs.

Physical Effort: Grade 10 wood crafters work in tiring positions for prolonged periods. Their work requires frequent standing, bending, stooping, crouching, and arm movement. They sometimes do their work in cramped areas, on temporary platforms, and overhead. Wood crafters frequently lift and carry items weighing up to 20 kilograms (45 pounds). They may occasionally lift heavier items with assistance.

Working Conditions: Wood crafters usually work in woodworking machine shop areas or other enclosed areas which are sometimes unheated. They are frequently exposed to eye, skin, nose, and lung irritations from glue, bonding chemicals, vapors, splinters, and sawdust. They are also frequently exposed to the possibility of receiving cuts and serious injuries, such as loss of fingers, from accidents while operating woodworking machines.

To minimize or eliminate the effects of some of these conditions, wood crafters follow numerous safety practices and wear or use various protective devices.

For example:

- they may wear protective eyeglasses or a face mask to protect against flying wooden particles;
- they may wear protective ear devices to lower noise;
- they may wear a respirator to protect against sawdust and vapors;
- they use machine guards to protect against cuts and loss of fingers;
- they follow numerous safety practices in operating machines and using tools and equipment.

Some of the protective devices wood crafters use may be uncomfortable and may be worn for long periods.