

APPLICATION OF MODERN CARPENTRY TECHNOLOGIES IN THE EQUIPMENT OF PRIMARY TEXTILE TECHNIQUES

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The successful application of hand spinning and weaving in modern times can only be achieved by combining modern engineering techniques with optimally selected materials and in-depth materials science in carpentry. The basic principle for building a handloom follows the balance between durable construction, diverse weaving capabilities and overall ergonomics. The essential problem consists in finding an optimal combination between the carpentry materials and the assemblies of the working bodies. Modern carpentry equipment has two purposes:

- Production of spare parts for maintenance of hand tools in a training workshop for primary textile techniques;
- Production of additional devices for servicing the main equipment.

Made from selected wood materials, they have different shapes and sizes, which are grouped as machine elements: rods, axes and shafts with a circular cross-section, beams and consoles with straight axes and a levelled surface, holes and assemblies with different cross-section profiles.

Compact technological equipment for modern woodworking in this case includes multifunctional milling machines, compasses and similar machines.

The subject of the article is a list of carpentry machines and products for completing a textile training workshop.

The conceptual design of the loom is based on the modularly upgraded functional groups and capabilities of the loom.

Heavy woods with a high relative density and strength are used to make the chassis. They provide stability in operation and longevity of the loom.

Light woods are suitable for moving parts operated by the hand, such as the shuttle, for example. The bearing assemblies of the moving parts such as the main and the traction cross ensure the durability of the loom and reduced human effort when driving.

In addition, it is necessary to distinguish the different types of assemblies (fixed and movable) and select the appropriate machine elements.

The collected and arranged technological information leads to optimal constructive solutions.

The tasks are mainly related to the research and collection of technical data on the construction materials within the framework of the conceptual design and the applicable techniques for making and assembling the loom.

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