

# AMERICAN TRADERS

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## Canoe Materials & Construction

**Classic Cedar Canoes** – American Traders canoes are built using a variety of materials and techniques. The following information covers the major details of construction.

**Construction** – Using traditional techniques canoe hulls are formed over custom designed wood and steel molds. This ensures that each canoe is built to a uniform shape yet is individualized by the texture and patterns of the wood grain. White cedar ribs are steamed and bent over the form and then cedar planking is attached to the ribs with brass tacks that self clinch when they strike the metal bands on the mold, creating a very strong and lightweight fastening system. Planking is quarter-sawn red or white cedar that is butt jointed on the mold.

On canoes that are to be canvas-finished a little gap is left between planks to allow for slight contraction and expansion of the wood as humidity changes. The planking on epoxy-finished canoes is more tightly placed as the epoxy covering bonds to the planks and limits movement. It is quite normal to have small gaps between the planks that in no way affect the structural integrity or water-tightness of the canoes.

When the planking is complete a watertight covering of traditional canvas or epoxy is applied to the outside of the hull. Deck, seats and thwarts are installed and the interiors of all canoes and exterior of epoxy canoes are protected with multiple coats of a marine spar varnish.

**Red Cedar** – Western red cedar – or *Thuja-plicata*, from western Canada and United States is resistant to decay and is highly valued for boat building. The wood is used for planking and is colored from pale pink to chocolate brown. Typically quarter sawn with a pleasing even grain pattern

**White Cedar** – Eastern white cedar - or *Arbor-vitae*, is a conifer with scaly leaves that predominantly grows in the north east and is extremely decay-resistant. This wood is selected for building canoes because of its lightweight and resistance to decay. The wood is used for canoe ribs and planking and is light almost white in color.

**WC Wood-Canvas** - A traditional and beautiful hull finish. Time-tested cedar rib-plank construction is covered with a durable canvas that is stretched tightly over the hull. The canvas is then filled to create a smooth surface and painted with marine enamel paint.

**WE Wood-Epoxy** - Sometimes referred to as 'wood-glass' canoes, are built using the same methods as canvas covered canoes, however a clear bonded epoxy is used on the outside of the hull. An invisible layer of fiberglass cloth between the wood and the epoxy adds strength while allowing the natural beauty of the wood to show through.