

Additional Details on History of the Haskell Canoe

I have been doing some research on the Haskell canoe, and have found some information beyond that presented in Tom McCloud's excellent article in *The Wooden Canoe*," and the WCHA Manufacturer Database. Instead of Haskell Boat Company making a single model of 17' canoe from 1917 to around 1934, the story is a little more complex.

The first Haskell canoe was a 16-footer called the "V"neer Canoe" manufactured by the Haskell Manufacturing Company in 1917, possibly in an attempt to get various governments interested in the waterproof glue they had developed. This glue was derived from albumin from the blood of slaughterhouse animals, in preference to egg albumin (because the former was more widely available at considerably less cost), and for this reason was referred to as "blood-albumin" glue.

The war effort rapidly took the entire attention of the Haskell Manufacturing Company, and I suspect that in enlarging the company for wartime production, Haskell lost controlling interest to a group of investors, with the company becoming the Haskelite Manufacturing Corporation. After the war, Haskell regained control of the original canoe molds, but decided to expand them to a 17' model because of market demand. His new company, the Haskell Boat Company, produced the 17' canoe exclusively from 1922 to 1934.

Evidence for these claims and identifying characteristics of the two Haskell canoes are summarized below:

1. Ad in "Forest and Stream" Volume 87, July 1917, page 328, (also volume 70, pg 711 of "Outing") for the "V-neer" canoe 16' long by 32" beam, by the Haskell Manufacturing Company.
2. Article in February 10, 1917, issue of the "Hardwood Record" includes an illustration of the canoe which seems to show (1) little to no tumble-home, (2) the top end of the stem seems to be at a 30 degree or more angle to the horizontal, (3) a "perforated" seat (as mentioned in the article text), and (4) a simple arch of the deck edge.
3. Around 600 canoes were sold in 1917 before production was cut short in order to address the demand for plywood for the war effort. ("Yachting Items From Near and Far", *The Rudder*, Vol 38, No. 5, May 1922, pg 50.)
4. Article in *Ludington Daily News*, October 17, 1921, quoted Henry L. Haskell about his plans to renew manufacture of canoes: "I must first lengthen my molds. Formerly I turned a 16-foot canoe. The demand is for one of 17 feet. It will be perhaps two months before I resume production in a small way."
5. The new canoe from the Haskell Boat Company is described in sales literature – "The HASKELL Canoe ... pride of the wilderness guides" – as being 17' in length.
6. A single sheet ad/brochure from the Haskell Boat Company showing the canoe and the "Redskin Paddle" shows several points of contrast to the "V-neer" canoe: (1) there is visible tumble-home, (2) the stem curves back almost horizontally as it joins the deck peak, (3) though not visible in the illustration, later canoes (at least) had no perforations in the seats, and (4) the deck edge is like the "bracket," "brace," or "curly brace" used in mathematical set notation.

7. One final difference is that the beam of the 17-footers is closer to 35 inches, as measured off my Haskell.

In tabular form:	“V-neeer” canoe	later canoe
Production dates	1917	1922 — 1934
Length	16’	17’
Beam	32”	35”
Tumble-home	little to none	noticeable
Stem angle	around 30 deg	around 0 deg
Seats	perforated	intact

I think it important to stress that the Haskell canoes were neither "hot molded" nor "cold molded" in the current use of the terms.

Here I am using "cold molded" to describe the familiar process of placing veneer strips over a mold with an adhesive that does not require the application of additional heat to set, as in vacuum bagging with epoxy. "Hot molded" is a process like the Duramold process which uses veneer strips coated with phenolic glues placed into or onto a mold which is then subjected to heat and pressure to set the glue. The Hughes Sportster dinghy was constructed in this manner, as I suspect were the hulls supplied by US Molded Shapes and other 1940s through 1960s molded plywood boats and canoes.

Haskell's process was fundamentally different from either of these in that the plywood sheet was fully formed flat, and is perhaps more properly referred to as "hot formed" or "hot pressed." As noted in Tom McCloud's article, the "butterfly" shape corresponding to the expanded surface of the canoe was cut out, and this was the boiled for three or four hours before being placed in a heated press and bent into the shape of a canoe.

This was a rather remarkable process, considering that the expanded profile of the shear on the flat was considerably longer than the final length of the shear in three dimensions, so the plywood along this edge had to compress lengthwise. Besides having a glue that could withstand the boiling, this compression was the primary challenge Haskell faced in making his canoes. In fact, Haskell's earliest attempts wrinkled badly along the gunwale, where compression was highest. To address this, Haskell cut out the wrinkled section and replaced it with a new panel, or alternatively cut small gussets into the edge, as seen in his US patent #1,298,042 filed October 13, 1917 and awarded March 25, 1919.

His ultimate solution was to form the shear edge of the "butterfly" into a temporary curve with its axis parallel to the centerline. This curve served to keep the edge from wrinkling as the sheet was pressed into the mold. This and a lot more information on the technical side of Henry Haskell's explorations into waterproof glues and plywoods, and the problems he encountered in the early stages of manufacturing are found in an extensive article in the August 1919 issue of "The Vehicle Monthly," beginning on page 19.

Because the Haskell canoe was formed from a single sheet, there is no lengthwise component visible on the inside of the canoe, and only an optional keel on the outside. The "Algonquin" canoe, by US Molded Shapes, for example, has a shallow keelson strip clearly visible inside. It also has lovely laminated curve cross-members on its seats, approximating the shapes found in many aluminum canoes.

A final note: certified aircraft plywood is subjected to a boiling test, which may be a descendant of Haskell's efforts to prove his waterproof plywood worthy.

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