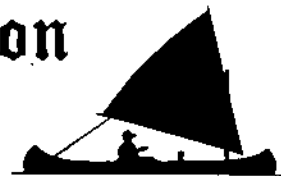




American Canoe Association

ACA CLASS OPEN SAILING CANOE



Sail - is a one-design sleeve type lateen sail of sturdy dacron material which may be purchased from the American Canoe Association National Sailing Committee.

The ACA Class rig is a sturdy, high performance, yet simple canoe sailing rig. When set up according to these instructions on any canoe with either a rudder or paddle for steering, it may be used by one or two persons for cruising or racing. If you intend to race, check the attached rules.

Mast, gaff and boom may be made of wood, preferably hollow. Glue two 1 1/2" by 3/4" fir or Sitka spruce strips together for gaff and boom and taper and round to dimensions shown. Taper 4 strips and glue in a box shape with hollow center and plugs in ends for best results on masts. Aluminum tubing to dimensions shown may be used with wood plugs in ends or Laser or Force Five caps on ends. Do not attach fittings for halyard or sheet line until you put the sail on the spars and fasten the gaff and boom together and measure where the holes are in the sail. The gaff and boom should be attached so they fold together with sail on for storage on the boat.

Gooseneck - To attach the boom to the mast, you can tie it on with a rope to try it out (or permanently) or you can attach a ring to the boom to slip over the mast. Best is a brass or wood gooseneck on the port side of the boom fastened about 10" back on boom, so that sail extends forward 8" in front of center of mast.

One long leeboard usually on port side is sufficient. Four 1" x 2 1/2" boards glued together provide maximum strength and resistance to warping. Finish to dimensions shown. Can be tapered below waterline to 1/2" thick at bottom. Face with glass on both sides where it attaches to the thwart.

Leeboard thwart may have an aluminum angle and carriage bolt or wood assembly with 1/2" brass bolt as shown. Face wood with fiberglass where it rubs against the leeboard.

Rudder blade is the same construction and shape as the leeboard. Stainless gudgeons and pintles can be purchased. The straight stick tiller shown with a hiking extension may be used or an extension may be run to a pivot behind the cockpit and a tiller attached to gain more leverage.

The mast thwart and mast step should be braced on most canoes to prevent twisting of the hull. Aluminum tube or plywood may be used.

Assembly of rig to the canoe begins by determining cockpit space and weight balance. For steering with a paddle the sailor must lie down in the canoe and needs a longer cockpit. This also helps with two people in the boat. The leeboard thwart should be approximately 26" forward of center and a back rest thwart 26" aft of center providing 48" cockpit. For steering with a paddle, the canoe should have a strong windward helm, therefore the distance from mast to leeboard is shorter than with a rudder which requires almost no windward helm. If you use a rudder, you sit on the gunwale just behind the leeboard so the leeboard thwart is placed 8" to 12" forward of the center of the boat. (Note A on drawing.)

Measure from the center of the boat forward to leeboard thwart. Then measure from center of leeboard to center mast (Note B on drawing), 24" for a long boat, 28" for a short boat. Put in the mast thwart and mast step. (If you desire to make this one or two inches farther forward because of the placement of seats or thwarts in your boat, you will only lose a little in performance.)

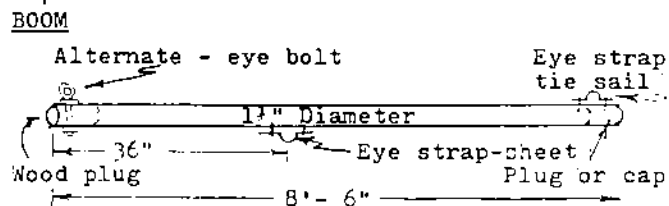
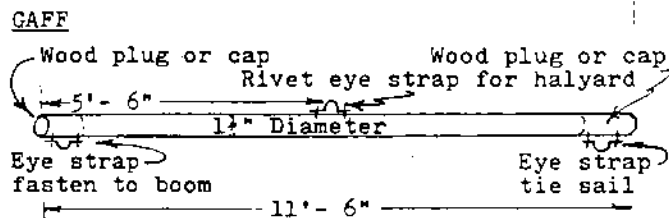
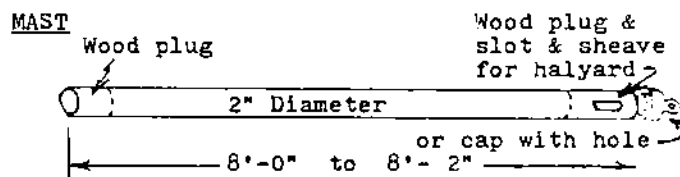
DO NOT fasten the leeboard thwart to the boat yet. Assemble the rest of the rig, clamp the leeboard thwart in place, sail the boat and adjust the leeboard back and forth one or two inches until you get the amount of windward helm you want. (We cannot give the exact location of the leeboard within 2 or 3 inches because of the variety of hull shapes and sizes and steering devices which will be used.)

Fasten the halyard to the gaff, run it through the top of the mast to a block on the front of the boat or on the mast thwart back to the leeboard thwart and tie it with the sail down and stowed on the boat. Then it is long enough and sail can be quickly hoisted.

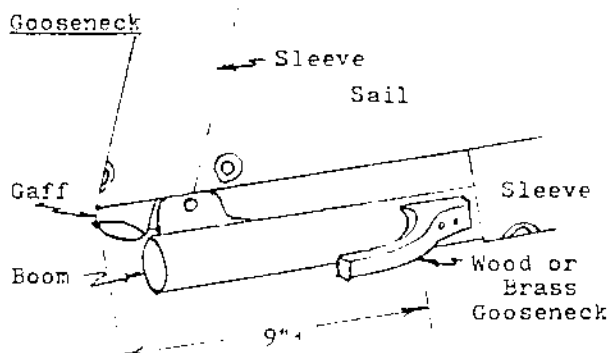
For paddle steering, attach the sheet line to a thwart or seat in the stern, run it through a block on the end of the boom, through a block on the center of the boom, through a block on the leeboard thwart and back to sailor's hand. It is safest not to cleat the sheet.

For rudder steering, attach the sheet line to the boom or a becket on a block on the boom and run through a double block on the leeboard thwart, back up through the block on the boom, back down through the double block on the thwart and to the sailor's hand.

ACA CLASS ALUMINUM SPARS



Note- Use 6061-T6 aluminum tube - 0.058 wall thickness. Marine stores have Laser or Force Five caps and fittings to fit.



Rigged for steering
with a paddle

All dimensions
recommended but
optional

Except for Racing

Max Sail Height 13'-6"

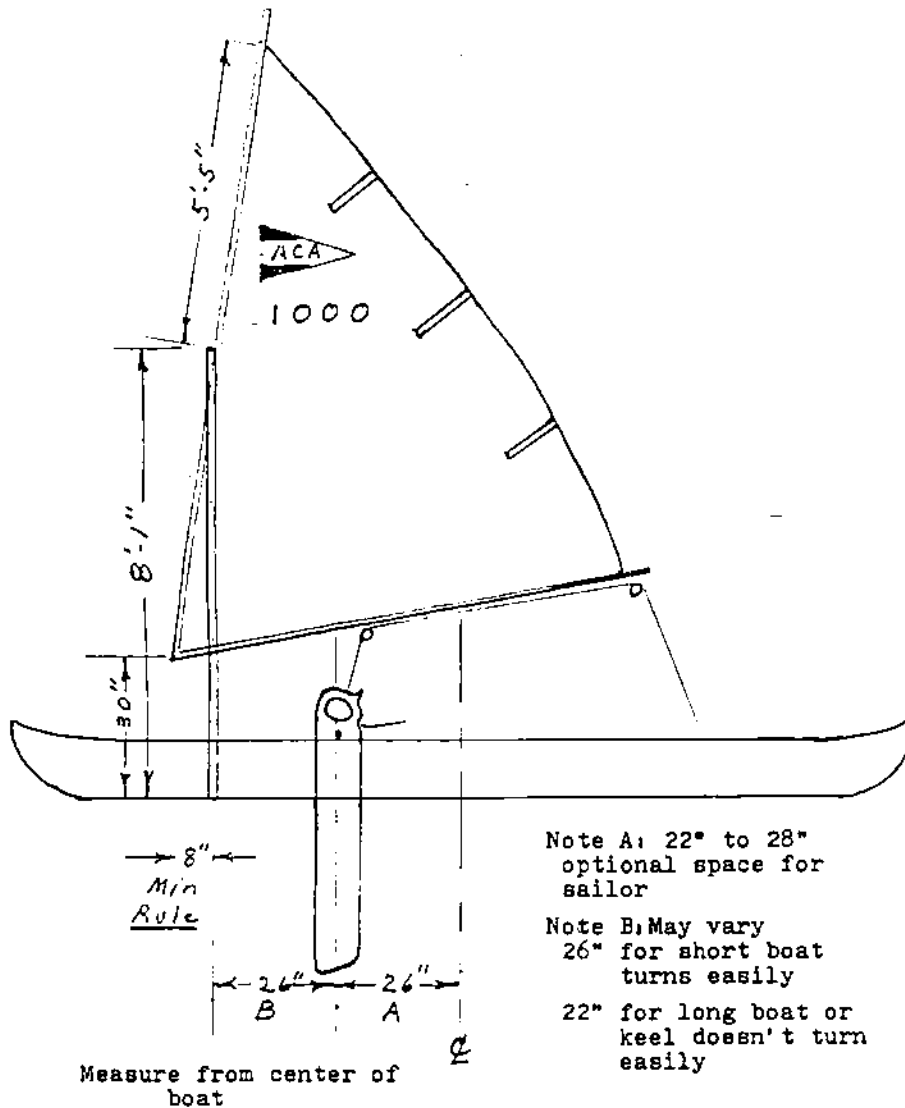
Center of mast to
front of sail min 8"

ACA CLASS SAILING CANOE

44 Square Feet
Lateen Sleeve Sail

Nov. 3, 1981
Scale: 1 cm=1 ft.
L. Zuk
Page 2 of 3

Sail Height Max 13'-6"
Rule



Rigged for Steering
with a Rudder

All dimensions
recommended but
optional

Except for Racing

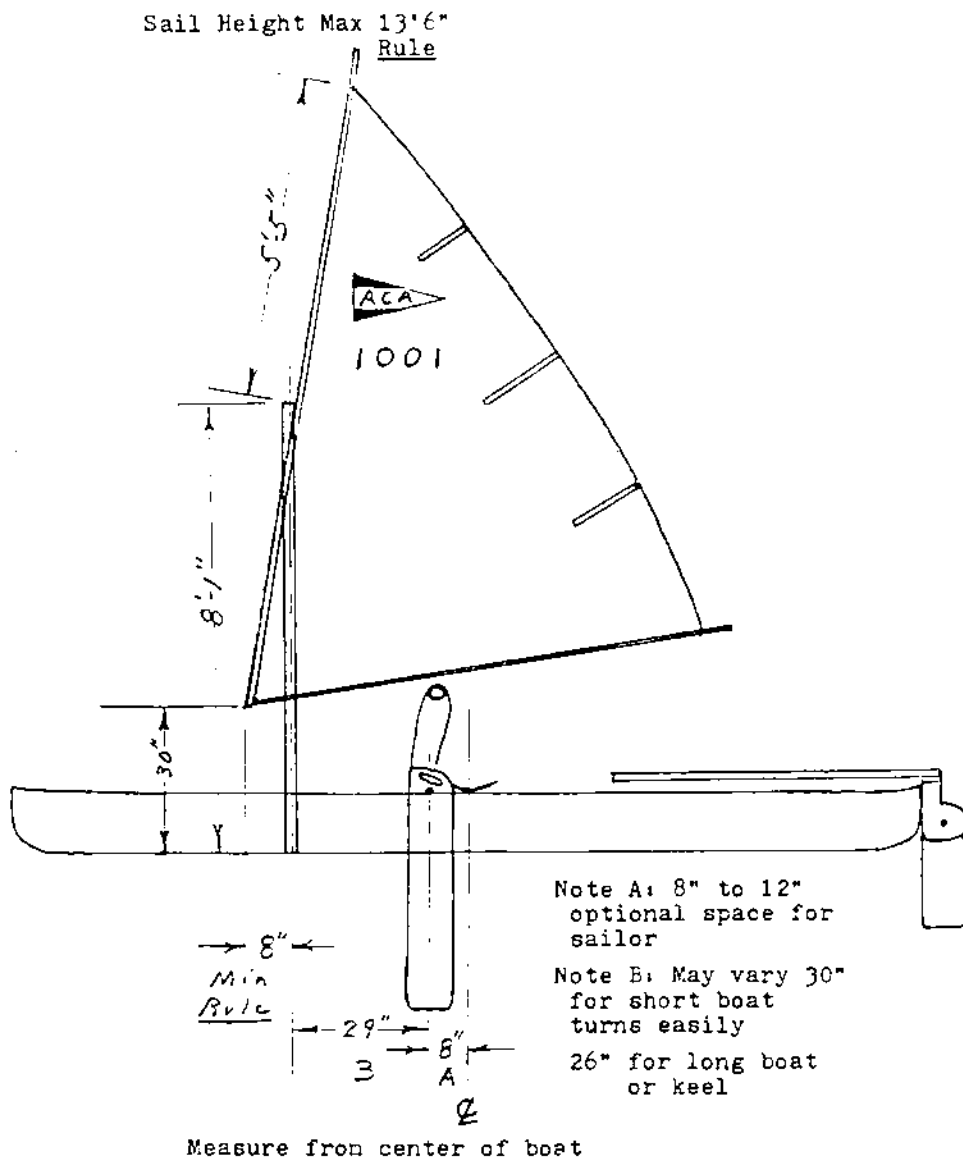
Max Sail Height 13'-6"

Center of mast to
front of sail-Min-8"

ACA CLASS SAILING CANOE

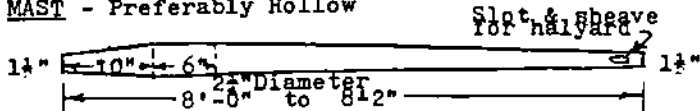
44 Square Feet
Lateen Sleeve Sail

Nov. 3, 1981
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L. Zuk
Page 3 of 3

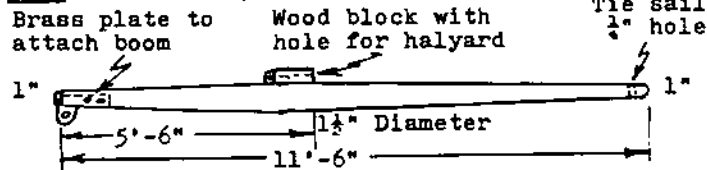


ACA CLASS WOOD SPARS

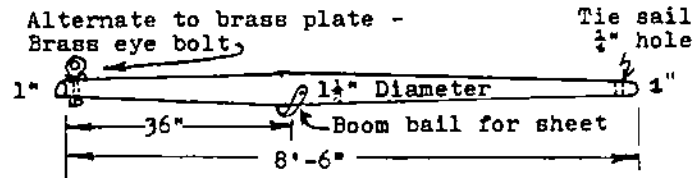
MAST - Preferably Hollow



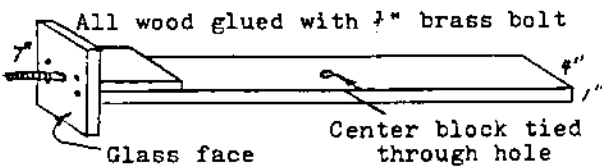
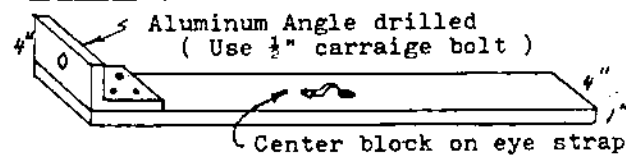
GAFF - Preferably Hollow



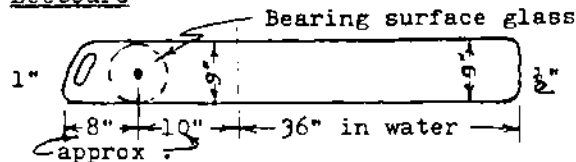
BOOM - Preferably Hollow



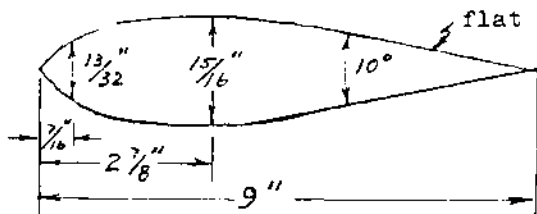
Leeboard Thwart



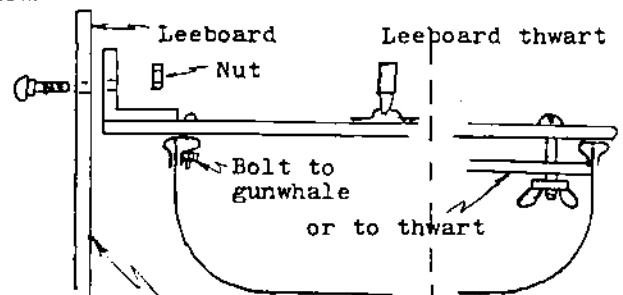
Leeboard



Cross Section at Waterline

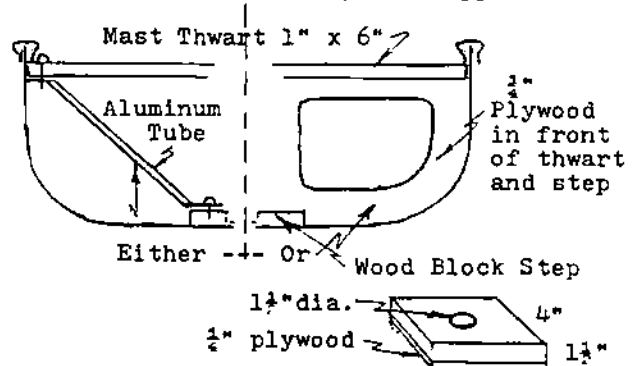


Leeboard Mounting

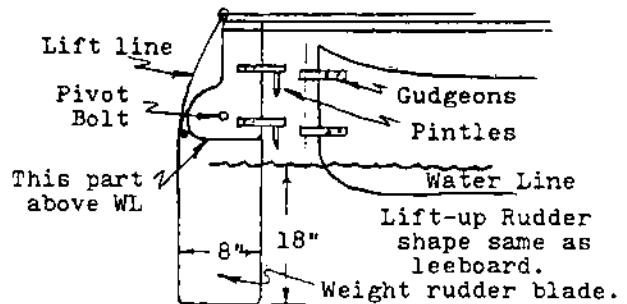


Mast Thwart and Step

Aluminum Tube or Plywood Support



Rudder



Note- Put sail on spars and measure before attaching halyard and sheet fittings.

REGISTRATION FORM

ACA Class Open Sailing Canoe

Name _____

ACA Class Sail No. _____

Address _____

Telephone No. _____

Name of Canoe _____

Manufacturer _____

Length _____ Max. Beam _____

Model _____

Max. Beam at 4" Water Line _____

Deck Length: Bow _____ Stern _____

Steering: Rudder _____ Paddle _____

Shape: Sym. _____ Asym. _____

Remarks: _____

Return this form to: Chairman, National Sailing Committee
American Canoe Association, MARILYN VOGEL
2210 Finland Road, Green Lane, PA 18054

Optional - attach a downhaul to the bottom of the boom at the after part of the gooseneck and/or a vang at the center cut on the boom and run through blocks attached to a ring at the bottom of the mast.

This is the recommended rigging for this sail. Modifications are permitted. If you wish to race, check the rules. There are two measurements on the rigging: (1) maximum sail height 13'6", and (2) sail extends 8" or more in front of centerline of mast. There are a few restrictions on the hull and decking.

ACA Class Open Sailing Canoe Racing Rules

11-3-81

The ACA Class Open Sailing Canoe is a simple sleeve lateen sailing rig suitable for cruising or racing. It is based upon a one-design sail which must be purchased from the National Sailing Committee of the American Canoe Association and manufactured by licensed sailmakers.

No modifications to the sail are permitted nor any changes or additions to the sailing rig permitted unless stipulated in these rules.

The Canoe Hull and Permanent Attachments

1. The canoe must be single-hulled, pointed at both ends and symmetrical from side to side but not necessarily symmetrical from end to end. Any length is permitted.
2. The canoe shall be 30 inches or wider at the 4-inch waterline at some location.
3. The canoe with rigging shall float when submerged.
4. The canoe shall not be decked for more than two thirds of its length. Deck coamings or splashboards shall not be more than 2 in. high.
5. Permanent bulkheads are limited to the area under the decks.
6. Flotation is encouraged and may be added, but no flotation shall be installed so that it acts as additional decking or gunwales and impedes the flow of water into the boat.
7. Gunwales shall not be greater than $\frac{1}{4}$ inches wide including the hull of the boat,
8. Any type of bailing device is permitted, *except a power pump.*
9. Hiking straps are permitted.
10. Keels are optional and shall not exceed $1\frac{1}{2}$ inches in depth.

The Attached Sailing Rigging

If the canoe is rigged as per instructions, it will conform to 1991 rules. Any construction material may be used.

1. The sail must be an official ACA sail purchased from the National Sailing Committee. No alterations to the sail are permitted. The sail may not be sailed loose-footed. *Window is optional.*
2. The rigging shall be attached so that the gaff, boom and sail can be lowered and stowed on the canoe while underway.
3. The sail shall be installed using the openings provided in the sleeves for fittings such that the top of the sail is no higher than 13 feet 6 inches above the inside of the bottom of the hull measured vertically from the head of the sail with the canoe level.
4. The sail shall be installed so that the foremost part of the sail at the tack shall be no less than 8 inches in front of the center of the mast measured horizontally.
5. The mast shall be a straight single mast and the boom and gaff shall be straight. All spars are allowed a one-(1)-inch bend as measured from end to end along the center line for a manufacturing tolerance or set caused by use. The mast without fittings shall fit through a 3" diameter circle.
6. A rudder or paddle which may be attached to the canoe may be used for steering.
7. One or more leeboards may be used. Centerboards or skegs are not permitted.
8. A sprayboard at the leeboard(s) is permitted which shall not be longer than 6 inches forward nor 3 inches aft of the leeboard when the leeboard is in a vertical position.
9. No seat shall extend outboard of the gunwale. Seats are permitted only under the gunwale.
10. Downhauls and vangs are permitted. Adjustable outhauls or adjustable travellers are not permitted.



1880-1980

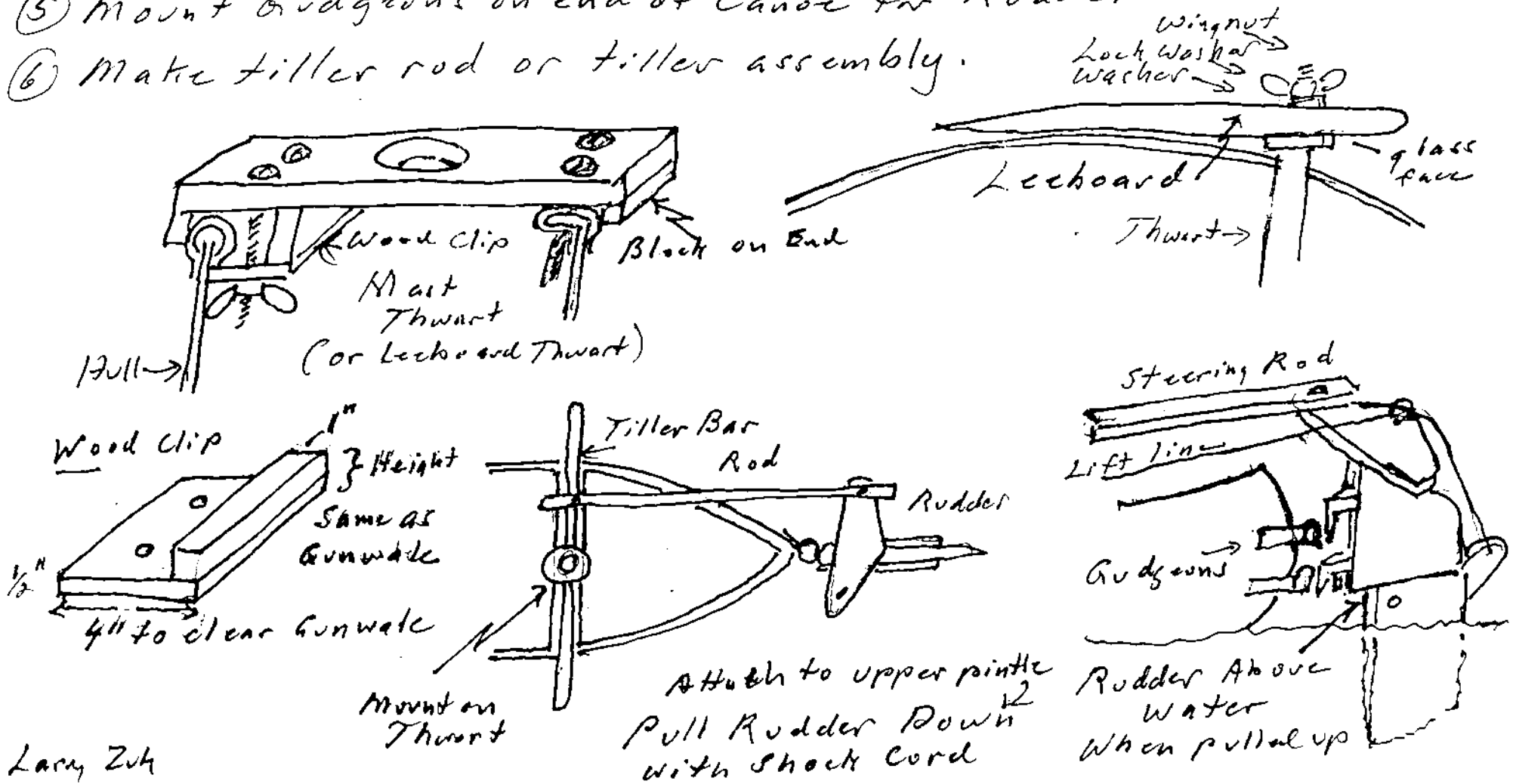
AMERICAN CANOE ASSOCIATION, INC.

Suite B-226
7432 Alban Station Blvd
Springfield, VA 22150

ACA Class Rig - Rob Howard

1995

- ① Glue two piece 94 ft together - epoxy best - or 3 b.lts
- ② Glue mast step onto bottom of canoe - epoxy best
- ③ Mount Mast Thwart - Bolt through gunwale or
Make removable with clips.
- ④ Mount Leeboard Thwart - on left side (glass face on board.)
- ⑤ Mount Gudgeons on end of Canoe for Rudder
- ⑥ Make tiller rod or tiller assembly.



Larry Zuh

ACA Class Sail Assembly

April 1995

1. Glue the gaff together with epoxy glue.
2. Insert gaff and boom into sail sleeves - open side in.
3. Bolt the two brass plates together with a $\frac{1}{4}$ x $\frac{3}{4}$ bolt & wing nut
4. Attach $\frac{1}{8}$ " nylon or dacron line at 3 corners of sail.
5. Pull sail down at the tack so it is parallel to the boom and tie.
6. Pull sail up very tightly at the head and tie it.
7. Pull sail out loosely at clew as far as cloth goes without stretching.
Tighter in heavier wind - put on tension.
Looser in light wind - $\frac{1}{2}$ ".
8. Boom and gaff go on left side of mast. Put gooseneck on mast up where the mast is thin and slide it down . This holds gooseneck on mast when sail luffs. Mast is set with sheave sideways. Block on mast is on left and block on gaff goes against it. Thus, sail does not rub against mast.
9. Tie loops of $\frac{1}{8}$ " nylon cord around boom to fasten sheet line at cut out in boom. Do not put any holes or bolts in boom. It weakens it.
10. Use $\frac{1}{4}$ " Dacron yacht braid line for Halyard and sheetline. (About 45 ft.)
11. Put Halyard through the hole in wood block on the gaff and tie a knot in the line. (Not around the gaff.) Put the long end of the line through the top of the mast. With the sail lying on the canoe in the position you would stow it for paddling, put the halyard through the mast, down the mast around the mast thwart and back to the leeboard and tie it. Then cut off the excess line. The halyard is then handy to haul up the sail while you are sitting in the boat underway.
12. Assemble the sheet line. Tie the single block with the becket (extra loop) onto the boom. Tie the double block with swivel onto the leeboard thwart. (I use little shackles so I can take the sheetline off and put it away separately.)
13. Tie one end of the sheetline to the becket on the boom with a bowline knot. put the line through the doule block on the thwart, back through the block on the boom, down through th block on the thwart and back to your hand.
14. Put the boom out at an angle of 80 degrees (which is the furthest it should be let out), put the sheetline twice around your hand on the gunwale(which is the way it should be held while sailing) and cut it off.
Do not have extra sheetline in the canoe to sit on or get tangled.
Do not tie a knot at the end or cleat the sheetline. Be able to loosen it in the puffs.

