

I. INTRODUCTION

The History of Catboats

The catboat is an American-designed sailboat that has been constructed by boat builders on the eastern seaboard since before the 1850's. This sailboat was originally designed for use as a commercial fishing vessel and elements of its design were geared towards stability and seaworthiness. By the 1870's, catboat designs had evolved to support use of these vessels as both pleasure and racing boats. Early catboats were mainly found in three areas on the eastern coast: the lower New York Bay and northern New Jersey seashore; the Narragansett Bay in Rhode Island; and the Massachusetts Bay and Cape Cod. In the present day, catboats are still prevalent in these areas but are also found extensively in other areas, including the Gulf of Mexico and the Seattle area.

Catboats generally range in length from twelve to thirty feet. However, catboats up to 42' have been built, including a cruising catboat designed by Charles Mower with a length of 40' on deck. Catboats have the distinguishing qualities of being shoal draft with a beam that is approximately half of the length, and have a single mast far forward with a boom that extends to the rudder to balance the boat. Most catboats have centerboards, yet keel designs do exist. The history of the catboat is an important part of the evolution of American yacht design, and modern catboat designs have not strayed far from the originals. For a comprehensive history of the catboat, please refer to *The Catboat Book*, edited by John M. Leavins and published for the Catboat Association by the International Marine Publishing company, Camden, Maine.

The Arey's Pond Catboat

The original Arey's Pond Catboat, the 14' "Cat", is based on a traditional wooden catboat that was very popular in the Narragansett Bay area in the early 1900's. One of the few remaining of these wooden boats was sailed in Pleasant Bay in the late 1960's. In 1971, Arey's Pond Boat Yard developed a mold similar in shape to the hull of that wooden catboat, but with alterations to shear, bow, and stern. In addition, new layouts for the deck and cockpit were devised. Arey's Pond Boat Yard also developed the 12' "Kitten", a fiberglass-hulled catboat similar in looks to the wooden "Beetle" built by Concordia. These custom designs combined the features of a low-maintenance fiberglass hull with the beauty of the traditional wooden mast, boom, gaff, and trim.

Other models include the 16' Lynx, which has a cuddy cabin with two 6' 2" berths and room for a porta-pottie. The Open 16' Lynx is a glorified 14' with room for six to sail comfortably. And we have designed a 20' Cruising Cat based on those seen in Nantucket at the turn of the century .

The first Arey's Pond Catboat was sold in 1972. During the interim, many modifications have been made. A second 14' hull mold was made in 1980 and a third mold was made in 1991 to maintain the high quality and integrity of each new catboat built by the yard. As of the beginning of 2002, Arey's Pond Boat Yard has proudly custom-built 211 "Cats", 32 "Kittens", and 22 "Lynxs".

Arey's Pond Boat Yard

Arey's Pond Boat Yard is located on Arey's Pond off of Little Pleasant Bay in South Orleans, Massachusetts. It has been a landing site for boats dating back to the 1600's. In December of 1626, the English ketch *Sparrowhawk* was headed for Virginia with passengers and their belongings when, in a winter storm, she floundered off Nauset Beach and was driven into Pleasant Bay. A volunteer party, led by Governor William Bradford of the Plymouth colony, sailed down the coast to Manskaket Creek and portaged the necessary supplies and repair equipment to the shores of what is now known as Arey's Pond. Local Native Americans aided the party as they proceeded, in dug-out canoes, across Arey's Pond, out the Namequoit River, and over to the beached ship. Some say that on a still winter night you can hear the ghosts of Governor Bradford and his relief party as they cross the pond on their way to the *Sparrowhawk*.

In 1945, James Kidd created Arey's Pond Boat Yard. He and his family operated the boat yard for more than twenty years until Brad and Elizabeth Fisk purchased it in 1969. The Fisks built the first Arey's Pond Catboat, and also made Arey's Pond Boat Yard into a leading dealer for the O'Day line of sailboats in the 1970' and 1980's. In September 1990, the yard was purchased by Tony and Robin Davis, becoming only the third owners in 45 years of the boat yard's existence.

Throughout the history of Arey's Pond Boat Yard, it has maintained its legacy as a traditional sailing center of Cape Cod. Under the management and leadership of the Davises, the tradition has continued, and has expanded to include a concern for the environment through planning and conservation efforts. Additionally, sailing enthusiasm is encouraged, in private and group lessons through Arey's Pond Boat Yard Sailing School .

II. SPECIFICATIONS FOR AREY'S POND CATBOATS

The Arey's Pond 14' Cat

LENGTH OVER ALL (L.O.A.): 14' 2"
BEAM: 7'
COCKPIT AREA:
DRAFT: 10"
CENTERBOARD DOWN: 3' 2"
HULL DISPLACEMENT: 700 LBS.
MAST L.O.A. and DIAMETER: 17' 6" x 4"
BOOM L.O.A. and DIAMETER: 15' 4" x 1-3/4" x 1-3/4"
GAFF L.O.A. and DIAMETER: 9' 6" x 1-3/4" x 1-1/2"
SAIL: 138 sq. feet.
BATTENS: 24", 30", 24"
MAST HOOPS: 5 OF 5" diameter with copper rivets.
REEF POINTS: one set 36" up from foot of sail.
RUNNING RIGGING LINE: 3/8" Dacron.
PAINT: Exterior fiberglass gel coat; interior and spar tips Petit Easyoxy
OIL ON TEAK: Sikkens Cetol
BOTTOM PAINT: Interlux ACT
VARNISH: Interlux Flagship Varnish #2015

The Arey's Pond 12' Kitten

L.O.A.: 12' 5"
BEAM: 6'
COCKPIT AREA: 4' 9" X 5'
DRAFT: 9"
CENTERBOARD DOWN: 3'
HULL DISPLACEMENT: 400 LBS.
SAIL: 119 sq. feet.
BATTENS:
MAST HOOPS: 5 of 4" diameter with copper rivets
REEF POINTS: none
RUNNING RIGGING LINE: 3/8" dacron
PAINT: All fiberglass gel coat; no interior paint, spar tips Petit Easyoxy
OIL ON TEAK: Sikkens Cetol
BOTTOM PAINT: Interlux ACT
VARNISH: Interlux Flagship Varnish #2015

The Arey's Pond 16' Lynx

L.O.A.: 16' 6"
BEAM: 7' 11"
COCKPIT AREA: 6' X 8'
DRAFT: 14"
CENTERBOARD DOWN: 4' 6"
HULL DISPLACEMENT: 1800 LBS.
MAST L.O.A. and DIAMETER: 21' x 5"
BOOM L.O.A. and DIAMETER: 17' 6" x 3"
GAFF L.O.A. and DIAMETER: 12' 8" x 2.5"
SAIL: 220 sq. feet.
BATTENS: 2 @ 36" 2 @ 30"
MAST HOOPS: 5 of 6" diameter with copper rivets
REEF POINTS: two sets
RUNNING RIGGING LINE: 3/8" dacron
PAINT: Exterior fiberglass gel coat; interior and spar tips Petit Easyoxy
OIL ON TEAK: Sikkens Cetol
BOTTOM PAINT: Interlux ACT
VARNISH: Interlux Flagship Varnish, #2015

III. CONSTRUCTION OF THE AREY'S POND CATBOAT

Fiberglass: *The hull, deck, seats are constructed of fiberglass, as described below.*

HULL: Prior to filling, the hull mold is cleaned and waxed. The desired gel coat color is then sprayed into the mold. Fiberglass cloth is hand-laid in a five-step schedule, creating a solid hull with no core. The transom is then laid in a similar fashion, with 3/4" plywood for strength. The overall process requires seven days. When the process is complete, the hull is carefully removed from the mold with a hoist.

DECK: The deck is laid by hand as described above with a Divinocell core applied where there is stress. Plywood pads are glassed in where deck fittings are located.

SEATS: The seats of the 14' Cat are glassed into the hull similarly to the above description. The 12' Kitten and 16' seats are fashioned differently (see **Wood** section, below).

CENTERBOARD: The centerboard is composed of solid P.V.C.. It is pinned with a 5/8" stainless steel bolt which is thread through a 1" bushing, rubber gaskets, and bedding compound.

Wood: *The spars, enclosures, seats, and trim are constructed with traditional wood, as described below.*

SPARS: The mast, gaff, and boom are solidly constructed of Sitka spruce.

CENTERBOARD ENCLOSURE: The centerboard enclosure of the 14' Cat and 16' Lynx is built using teak, imparting beauty and strength to the entire area. The 12' Kitten has no enclosure.

CUDDY ENCLOSURE (14' Cat): The cuddy enclosure is composed of 1/2" teak plywood with two openings cut out and replaced with solid teak doors. These doors permit securing of personal gear; without them the forward area is virtually wide open.

TRIM: The coaming, seat covers, and floorboards are solid teak constructed using high quality woodworking tools to perfect the joints. Generally, we seal the teak in 3 coats of a brand of oil selected by the prospective owner.

IV. RIGGING THE AREY'S POND CATBOAT

Stepping the Mast: *The heaviness of the mast makes handling difficult; care is required when stepping and unstepping. It is easiest to step the mast before launching the boat. The following is a list of directions for efficiently stepping the mast and attaching the boom, gaff, and sail.*

1. Lay the mast, with hoops attached, on the boat.
2. Position yourself on the foredeck and pick up the head of the mast.
3. While slowly raising the head of the mast to an upright position, walk the butt through the deck carefully. Whenever possible, have another person guide the mast butt onto the mast step.
4. Once the mast is stepped, connect the head stay.
5. Attach the boom to the gooseneck using the bronze bolt.
6. Install the gaff.
7. Attach the sail. The sail may be left on during the season, but it is important to use the cockpit cover to protect both the sail and the boat from weather. Wind, rain, and saltwater will shorten the life of the dacron sail material.

New Mast Options for the 14' Cat and 16' Lynx: *In light of the scarcity of moorings in coastal waters, new options allowing for trailering of the Arey's Pond Catboat have been developed.*

CARBON-FIBER MAST: The 14' Cat can be fitted or retrofitted with an extremely lightweight mast fabricated from carbon fibers. This mast is also free of stays.

BRONZE TABERNACLE: The 16' Lynx can be fitted or retrofitted with a custom-cast bronze tabernacle, allowing for easier one-person mast-stepping and maneuvering under bridges.

V. MAINTENANCE OF THE AREY'S POND CATBOAT

The following list is designed to serve as a guideline for maintenance of Arey's Pond Catboats. We recommend these tasks be performed in the Spring approximately two weeks prior to launching.

SPAR VARNISHING: Sand the boom, gaff, and lower two-thirds of the mast with 220 grit sandpaper. Bronze hardware can be taped to prevent scratching. Sanded areas should be wiped with mineral spirits prior to varnishing. Varnishing should be performed outdoors when possible. Ideal conditions would be air temperature of 70 degrees, no wind, and little or no chance of precipitation. We recommend Interlux Flagship Varnish #2015, applied with a 2" foam brush. It is best to pour the varnish into a separate container prior to applying.

MAST-TIP PAINTING: The painted top third of the mast should be sanded with 180 grit sandpaper, wiped with a clean rag soaked with thinner, and painted with an oil-based semi-gloss paint. We recommend Petit Easy epoxy White.

TEAK OILING: Teak areas which are oil-finished should be scrubbed with a teak cleaner. If the teak is in good shape, only a light scrubbing is necessary. Once dry, apply the teak oil of your choice using a 2" foam brush. We recommend Sikken's Cetol, which requires sanding between coats.

BOTTOM PAINTING: The hull and rudder blade should be sanded up to the waterline with 60 grit sandpaper. If the boat is to be moored in saltwater, the centerboard should also be dropped and sanded. If the boat has not been sanded previously, apply a fiberglass primer. We recommend Petit 6999. Then paint the bottom, rudder blade, centerboard, and centerboard well (to the extent possible) with anti fouling paint. We recommend Interlux ACT.

COMPOUNDING AND WAXING: The hull should be compounded every other year and waxed every year. We recommend Simoniz Royal Marine wax.

RIGGING: Periodically inspect all mast hoops to determine structural integrity and oil as necessary. Also inspect all running rigging, the head stay, and fittings for wear and damage, and repair or replace if needed.

SAIL AND COVER: These should be inspected for wear, repaired when needed, and stored in a clean, dry environment. We recommend professional cleaning at least every other year.

VI. SETTING SAIL IN YOUR AREY'S POND CATBOAT

Raising the Sail: *The following is a brief outline of the general steps involved in setting sail.*

1. Drop the centerboard.
2. Release the mainsheet and assure it can run free.
3. Remove the boom from the boom crutch; place the crutch in the cockpit.
4. With the boat pointing ***into the wind***:
 - a. Take two pulls on the peak halyard to slightly raise the gaff.
 - b. Pull evenly on the throat and peak halyards.
 - c. Once the gaff is all the way up, secure the throat halyard to the cleat.
 - d. Tighten the peak halyard until the sail is flat and without wrinkles.
 - e. Secure the peak halyard to the cleat.
5. Loosen the topping lift so that it will not cause a crease in the sail.
6. Store and secure the boom crutch.

Centerboard Adjustment: *The following pointers are provided to enhance your sailing.*

1. When sailing ***into the wind***, the centerboard must be ***down*** all the way to avoid sideslipping of the boat.
2. When sailing on a ***beam reach***, adjust the centerboard (***raise it***) so that it is approximately only two-thirds of the way down.
3. When sailing in light winds with the wind directly astern (***running in light winds***) the centerboard may be ***raised completely*** to reduce resistance and increase speed.

Reefing: *It is not cowardly to reef the sails of a catboat. WHEN IN DOUBT, REEF!*

Three Points to Remember: *There are three constantly adjustable elements affecting the speed of your boat, as follows.*

1. Centerboard height
2. Trim of the mainsheet
3. The balance of the crew's weight

IN CONCLUSION

We at Arey's Pond Boat Yard wish you many happy years of sailing in your Arey's Pond Catboat. We have taken great pride in building each one. Please let us know of any suggestions you have to make this manual more useful or more comprehensive.

We highly recommend that owners of Arey's Pond Catboats join the Catboat Association. This organization can provide information that will assure you optimal enjoyment and utilization of your boat. For membership information, please contact: John Green at P.O. Box 246, Cataumet, Massachusetts 02534, or at (508) 563-3715.