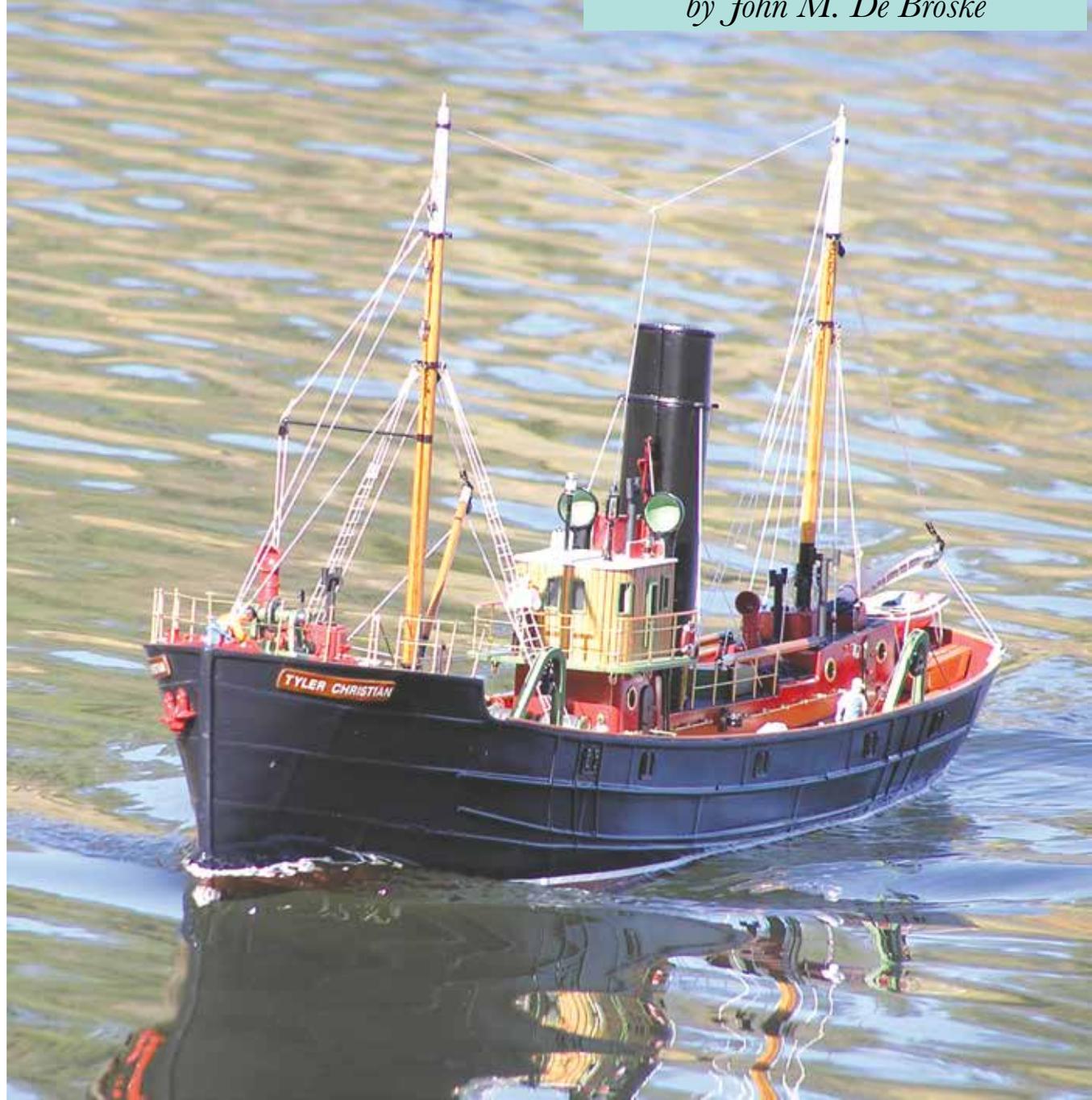


THE "MILFORD STAR"

alias "TYLER CHRISTIAN"

A CREATIVE APPROACH TO SCALE MARINE MODELING

by John M. De Broske



A creative approach to building a model is like turning lemons into lemonade. For example, take the object of this article, the CalderCraft "Milford Star" fishing trawler. The content of the kit is pretty complete but there are shortcomings and opportunities where the modeler has to or can be creative. This is NOT an indictment of model kit producers. They do an awesome job overall and I support their efforts whenever I can.

- But, for example:
- Of the 1000's of parts purported to be in this kit, some were deformed and/or some were completely missing.
 - Dimensions and measurements weren't always accurate.
 - Photos/diagrams didn't always show exactly what you need to know or do.
 - Step by step instructions were sometimes unclear or ambiguous.
 - Some processes simply didn't feel or look right.

This yarn is how I took these "lemons" and turned them into "lemonade". Before starting to build any kit model I create a personality and history for it which gives me great leeway in how I can interpret building and finishing. Thus, I don't feel constrained by prototype authenticity during construction. For me, progress from here goes like this. I spend considerable time looking through catalogs and surfing the net to choose a model kit I want to build. Usually, I like a model that already has some personality to begin with—such as a classic steam tugboat or a vintage yacht. I then consider size—the bigger the better. Radio controlled model boats that are less than thirty inches long just seem wimpy to me. I also look at what possibilities there are for enhancing a model's personality and history which I can incorporate into its fabrication. For example, does the model I'm considering lend itself to a unique paint scheme? Will the addition of such items like hand planked decking, cabin/cockpit customization or other component modification render the model more interesting regardless



The "MILFORD STAR" prototype from a vintage photo.



The "MILFORD STAR" alias "TYLER CHRISTIAN", as portrayed by Caldercraft on the kit box.



The "MILFORD STAR" alias "TYLER CHRISTIAN", as created from kit by "AZCAPTAIN BOATWORKS".

of authenticity? Can color scheme variations work? The question is not whether such adjustments are authentic to the prototype but rather will they look interesting and believable. For example, I restored an old Sterling Models “Chris Craft Motor Yacht” and decided it needed a flying bridge on the cockpit roof. I created such a flying bridge and this definitely added distinction to its personality. This model is unique and doesn’t look like any other one that I know of!

This approach to model boat building is not meant to minimize the effort or talent of purist modelers whose research, knowledge, skills and attention to authenticity must be respected. I am in awe of such artisans who can take raw materials like wood and brass and turn them into museum masterpieces. My approach is simply a way for me to avoid intimidation because my skills are limited in comparison. In summary, I enhance a model’s personality and history before construction, so during construction creative license is OK. I think my “purist” friends will understand and accept this approach.

The story I created to enhance the personality and history of the “Milford Star” goes like this. (Please note that some of what I write is fact, some is fiction.) “Once upon a time”, the “Milford Star”, was an attractively designed side trawler though poorly maintained during its commercial fishing life. This workboat looked very much like a number of other fishing vessels from Milford Haven, in the United Kingdom, during the 1930’s and 1940’s. In actuality, she was converted to a fishing craft from one of eight “Round Table Class”

English minesweepers sometime in the 1940’s. This occurred after its wartime services were no longer needed. The actual conversion was based on the hull lines of the “Star of Orkney”, a side trawler built in 1936. Before being converted from burning coal to oil in 1958, the “Milford Star” was named “Star of the East”. It was owned by the E.E. Carter Company and was a humble but productive fishing vessel for many years. For example, in 1961, her skipper and devoted crew brought in “43 kits of hake” and “101 of cod”—more than any other fishing trawler at that time. Curiously and according to records, the 65 year old master

skipper was also faulted and reprimanded in August, 1963 for running the “Milford Star” aground. Otherwise, no one took much notice of the “Milford Star” during its dangerous, back breaking; sweat laden, thirty plus years of service until rumor of scrapping surfaced.

Were it not for financier Alan R. Jones and entrepreneur David C. Burgess, the “Milford Star” would have been scrapped. These philanthropic gentlemen recognized an opportunity to preserve the war and peace history of this noble working class vessel for present and future generations. So, Jones and Burgess purchased the “Milford Star”, and had it rebuilt from the hull up. They partnered with the AZCAPTAIN BOATWORKS and created a plan for

FYI BOX #1: A MAJOR PROBLEM ALWAYS HAS A SOLUTION.

The KEY Drawing that came with this model was not full scale. This presented problems because this drawing was the only illustration in the kit to help determine where to position sub assemblies, masts, smoke stack, deck gear, etc. Therefore, I had to figure out a way to make accurate measurements. The length of the boat in the drawing was 27.5 inches long, when in actuality the model was 36 inches long. I realized if I added 31% to respective actual measurements in the drawing, the results would be in proportion to the model’s actual size of 36 inches. (27.5 inches X 131% = 36.025 inches, which was close enough for my purposes). So every time I needed to position an item I would plot its location on the KEY drawing and add 31% to the measurement. IT WORKED.



MANY OF THE SUB ASSEMBLIES THAT REQUIRED SEQUENCING AND FINISHING DECISIONS BEFORE CONSTRUCTION...

restoration. This plan was to enhance the original vessel but adhere to the most modern marine construction concepts. Upon completion, this “new” ship would be placed back in service as a functioning live museum and center for maritime heritage.

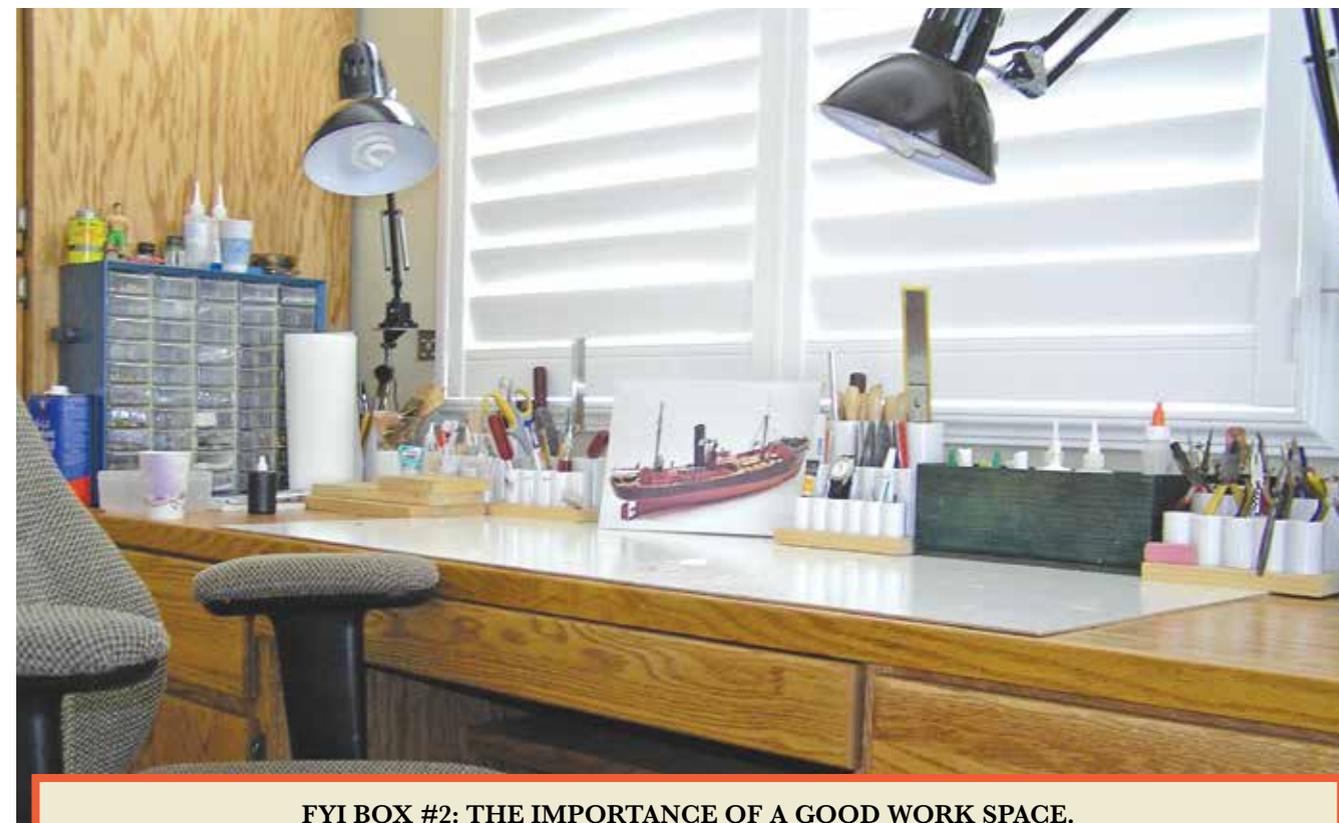
So for me the stage was set. I no longer had to be constrained by prototype authenticity. The “Milford Star” (kit) was to be completely built from the hull up. Construction began on December 14, 2006 at the AZCAPTAIN BOATWORKS, Prescott Valley, Arizona. It

was re-named the “Tyler Christian” in honor of the Jones’ and Burgess’ sons as stipulated in their philanthropic contract and launched on October 25, 2007.

To begin construction I first spread out all of the kit’s components, parts, raw material stock and the close to 1,000 soft metal cast fittings. The printed instructions and guides consisted of an array of somewhat cryptic Xerox sheet instructions, one starboard side photo on the box cover and a mechanical drawing that wasn’t to scale.

I was frightened, challenged and excited—all at the same time. I thought the build could be fun but was I capable? Then I said to myself, “hey, wait a minute, you’ve built several

Dumas and Midwest kits, so this is the logical next step in the continuum of challenge.” The panic was over, and I dug in. I first concentrated on developing a logical sequence for constructing the multitude of sub assemblies. I had to make decisions about what was to be built first, second, third. When should one item or another be painted and/or installed? If I placed sub assembly A in first would sub assembly B fit afterwards? Would creative and practical modifications fit? Once I mentally orchestrated the whole build, which would be open to change along the way, I gave consideration to what I wanted the completed model to look like. What colors would dominate? What colors should I paint fittings and deck equipment? Would I replace the screen painted deck sheet with hand laid wood planking? I decided I liked the colors used on the model pictured on the kit box which was a combination of black, rusty red, depot green and metallic copper. I departed from the original scheme though, by using more of the red and green to brighten up the final look of the model. If you look at PHOTO 02, you will see that I dramatically departed from the box photo of the CalderCraft model of “Milford Star” which suited my desire to present a livelier end result.



FYI BOX #2: THE IMPORTANCE OF A GOOD WORK SPACE.

You will see my workspace in the photo above. I cannot emphasize too strongly the importance of having a workspace that is dedicated to building a complex kit. You must not have to share this space or clean it up (but keep orderly) after each working session. To do so would disrupt a complex process AND offer an opportunity to loose, misplace, break parts or otherwise compromise critical mental and practical sequencing of building. Note that I used short lengths of PVC pipe glued to pine as tool holders. This simple device works exceptionally well, because they can be moved around at will to where they are needed.



Then, I categorized the construction process among the following clusters. As the reader will see, construction of certain groups had to be integrated while others could be done in isolation. As a case in point, some sub-assemblies like the life boat could be fabricated whenever the spirit moved me.

Construction clusters:

1. The hull and main decking.
2. The main deckhouse and wheelhouse.
3. Misc. wood sub assemblies
4. Fine detailing of deck fittings, railings, masts, rigging, portholes, etc.
5. Painting.
6. Propulsion, electronics and lighting.

I tackled the hull, main deck, propulsion and electronics all at once. I discovered that even though the motor, ESC, RC receiver and rudder assembly would be accessible through hatches upon completion of this craft, installing them before the main deck was secured in place would be easier. There would be little room for maneuvering big hands in a limited space if I waited until after the deck was secured. I divided the bilge area into three segments. Platforms for the operating gear were installed using thirty minute, two-part epoxy. The rudder components went together without a problem and a motor mount from scrap was created and installed similarly.

I prepared the interior and exterior of the fiberglass hull to receive decking and paint. I faired all uneven edges and sanded or filled



Various locations for electronics can be seen below deck.



Each sub-deck support had to be carefully located and conform to the entire forward to aft curve of the hull. Measured from the top edge of the hull after it was faired. 6 Minute, 2 part epoxy was used.

all minor defects inside and outside of the fiberglass hull. I used instant cyanoacrylate to seal hairline cracks in the fiberglass hull. I also used appropriate grit sandpaper, sanding

blocks, steel wool, and “Squadron Putty”. Then I washed the hull with soap and water and rubbed it down with alcohol to remove any mold wax. I can’t emphasize too much, the importance of

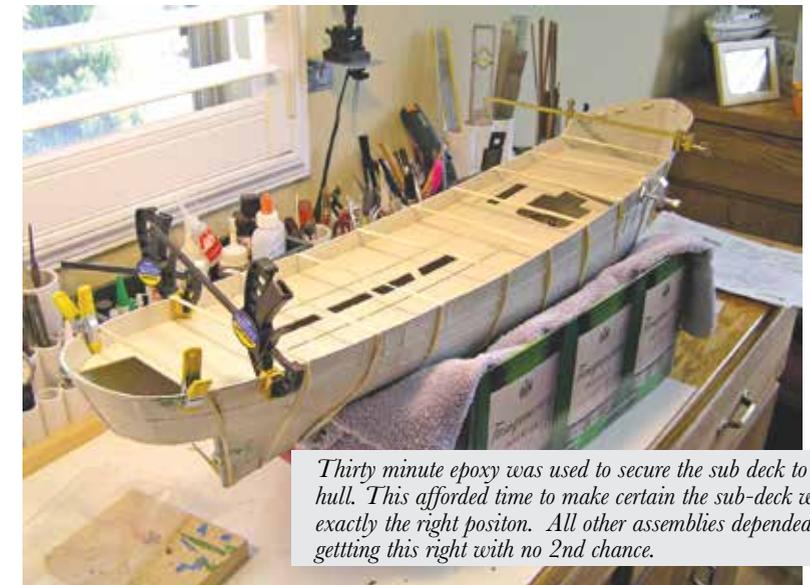
getting the hull into perfect condition early in the project.

Measuring and locating each main sub-deck support was tricky and critical in that it had to follow the sloping curve of the hull at the upper edge from stem to stern. The fit of every sub assembly of this model depended on the exact positioning of this component. The process of fitting this thin plywood sub deck into the hull required frequent sand and fit exercises. This was a challenge because the decking piece didn’t quite match the dimensions of the hull space. In fact the hull itself wasn’t dimensionally correct. This defect was probably caused by the fiberglass warping after being removed from a mold or curing after mold removal. After reconciling the problem I installed the sub deck without removing the laser cut interior access hatches. I did this to maintain the structural integrity of the thin sub-deck plywood. I used model airplane power rubber bands and clamps for support until the glue dried overnight. Incidentally, I used cyanoacrylate and 2 part epoxy for this sequence and for constructing most of the model.

A critical timing point during construction came here, after I had firmly fastened the sub deck in place. I realized the sub deck and the deck side of the hull had to be painted rust stop red before installing the stained and polyurethaned, simulated deck planking. In the process I had to ensure there would be no paint overruns, especially into the hold where propulsion and electronics would not take kindly to be sprinkled with aerosol paint. This was accomplished by completely masking out all access hatches.

The next logical step for me was construction of the deck house. This is an example of how I applied creative license to add personality but not authenticity to this project. I chose the rusty red color for the exterior—a brighter color than I am certain the

prototype “Milford Star” did not sport. This color would become a dominant feature throughout the model as you can see from photos. Then I chose to add real machined brass portholes, stanchions and railings—again adding eye catching appeal to this marine replica. Unseen, I added a three volt buss wiring system around the interior for planned future lighting. I’ll talk more about that later. The major challenge during this part of assembly was keeping the structure true in terms of horizontal, vertical and sloping angles related to the fluid bow to stern curve of the ship’s hull. I also wanted to be sure it would be stable but removable for access to propulsion and electronic components below. This important step didn’t get much attention in kit instructions. I also want to note here that the deck cabin, wheelhouse and smokestack became a single removable but top heavy unit. I was afraid it would roll into the water when “sailing the ocean blue”. To resolve the issue I used magnets along the bottom edge of the assembly aligned with magnets around the receiving deck opening.



Thirty minute epoxy was used to secure the sub deck to the hull. This afforded time to make certain the sub-deck was in exactly the right position. All other assemblies depended on getting this right with no 2nd chance.



Sub deck ready for paint. Note that scrap wood is temporarily glued in place to protect electronics below.

Be sure to read Part 2 of “The Milford Star” in the next edition of Boating on the Hudson and Beyond.