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# 13 tips for building great ships

Award-winning modeler  
describes his techniques

BY AARON SKINNER  
MODEL BY KEVIN WENKER

Inspired by the 1953 movie, *The Cruel Sea*, about British convoy escorts during World War II, as well as a visit to the HMCS *Sackville* in Halifax, Nova Scotia, Canada, Kevin built the HMCS *Fennel*. The model is a conversion of Matchbox's 1/72 scale Flower-class corv-ette with photo-etched and white-metal details from David J. Parkins ([www.djparkins.com](http://www.djparkins.com)), as well as a lot of scratchbuilding. Not only is the model big — 34 inches long — it's packed with detail and realistically weathered.

**K**evin Wenker's HMCS *Fennel* attracted a lot of attention several years ago at an IPMS/USA national convention in Omaha, Neb., and collected its share of awards, including best ship and Popular People's Choice. Kevin started with Matchbox's 1/72 scale *Flower*-class corvette, converting it to the Canadian navy's *Fennel* with photo-etched (PE) metal and scratchbuilt parts. Along the way, he used several unique techniques that he happily shared with *FSM*.

### 1 Plan ahead

"I have learned the hard way to plan ahead in my shipbuilding," Kevin says. "It is easier to lay out a plan of action to account for the various features of a ship than to try and go back and correct them after the fact."

He also advises breaking such a large undertaking into small subassemblies to prevent confusion and frustration. It also provides a sense of accomplishment and an incentive to continue as you see progress being made, he says. He established daily goals, taking into account the various parts and subassemblies, so the project did not seem so overwhelming.

### 2 Strong hull construction

Kevin built the corvette's four-piece hull by filling the seams with Milliput

two-part epoxy putty smoothed with a damp towel. He reinforced the joins with 5-minute epoxy applied inside the hull.

### 3 Blocking see-through holes

After filling several portholes not on the *Fennel*, Kevin glued sheet styrene inside the remaining portholes. He later filled those portholes from the outside with 5-minute epoxy to represent glass, then painted them over per wartime practice. "The reason I filled them with epoxy was, even after painting, the sheen through the paint was slightly glossier compared to the hull," Kevin says.

He glued sheet styrene vertically between the hawse pipes so observers couldn't look through the bow.

### 4 Scale appearance

The keel, porthole eyebrows, and hull plate were out of scale, so Kevin thinned them with a hand-held orbital sander and progressively finer grits.

He replaced the kit braces and ladders with Plastruct styrene stock. "My experience in building ships has shown that the smaller the cross section or thickness of braces, masts, bulkheads, ladders, etc., the better and more to-scale the model looks,"

Kevin says. "I almost always build under-size by 10-20%, as it looks

more delicate. It also blends in better with photo-etched brass, which is seldom thicker than .010 inch."

### 5 Use white glue as filler

Kevin uses full-strength white glue (such as Elmer's) to fill gaps. He says it fills well, conforms to the area, and rarely needs sanding because you can smooth it with a damp finger. "I find it's really good for any gaps between horizontal and vertical parts," Kevin says.

### 6 Working with styrene

Scratchbuilding the superstructure with styrene corrected errors in the kit. Kevin used a tip gleaned from the late Ben King, a model railroader: Ben cut the styrene sheet to size after attaching it, making a perfect fit each time. "For example, I built the lower superstructure using two lengthwise pieces cut to shape for the curve of the deck and scribed for the plating," Kevin explains. "I then glued pieces of styrene sheet across the front and rear of the two long pieces, forming a rectangular box.

"Once the glue dried, I used a new single-edge razor blade — I have more control with this [than a long-handled hobby knife] — to trim those pieces to match the lengthwise pieces." Not only does this method allow Kevin to save time — no tedious and error-prone measuring and cutting and fitting — but also it is more accurate. After lightly sanding the edges, Kevin primed the bare styrene pieces with thin Mr. Surfacer.

### 7 Working with photo-etch metal

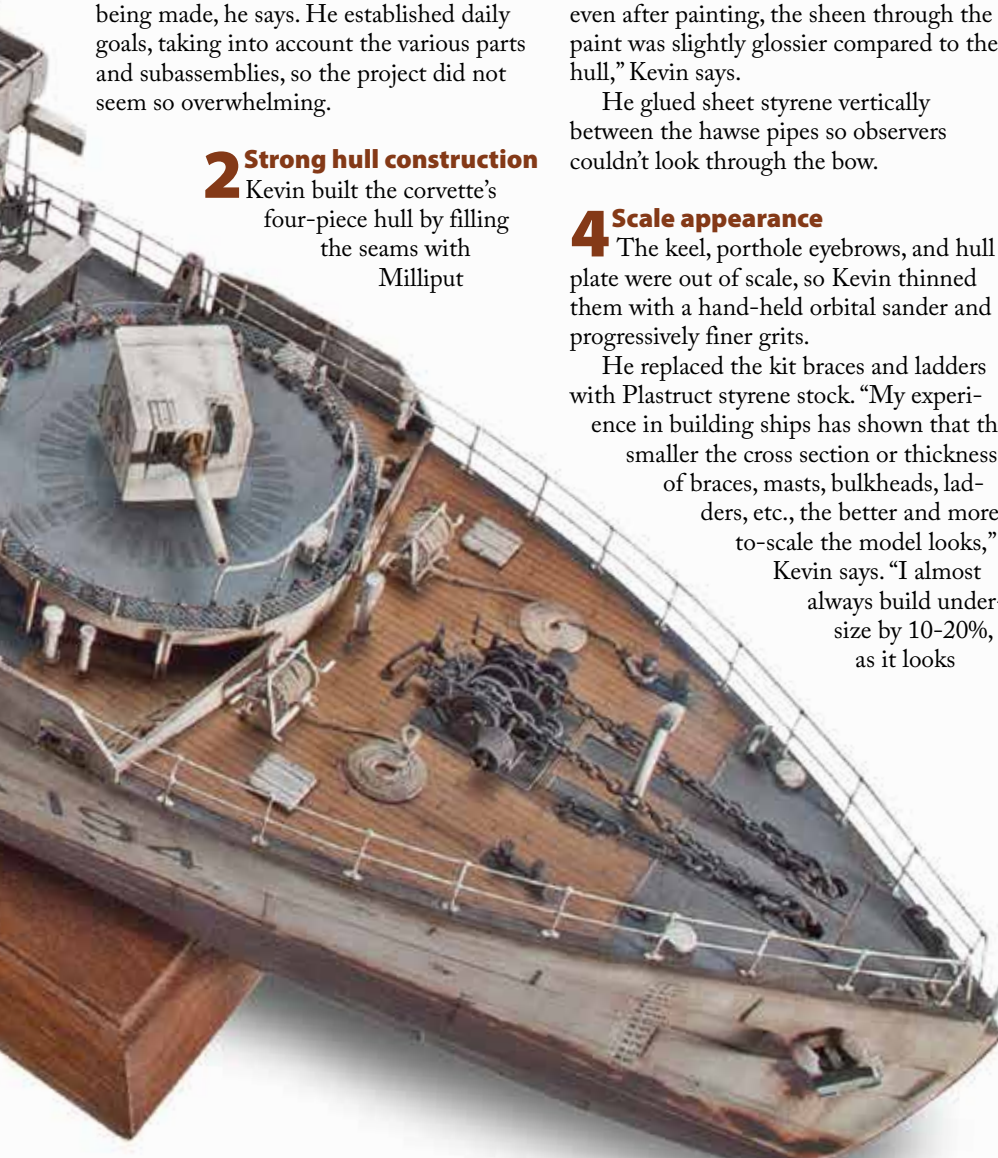
"I really like forming and assembling photoetched metal," Kevin says. "Using the right tools and methods helps immensely."

First, he washes the PE parts with soap and water while they are still attached to their sheets or frames. Then he rubs them with white vinegar, etching the metal slightly to aid paint adhesion.

He airbrushes the parts before attaching them to the model. By painting them before installation, the parts' small details and engraving are better preserved. Some of the paint will come off during bending, but it's easier to touch up the chips than painting the parts in place.

Kevin removes parts from their frets with fly-tying scissors, rather than a hobby knife. Knives often warp or kink metal parts and complicate bending or folding. The scissors also produce a square edge.

To fold the parts, Kevin uses the Hold and Fold from The Small Shop and the Etch Mate from Mission Models. He also has a pair of flat-jaw pliers, which have



# How to build a **BATTLEWAGON**

Deepening the art of *Texas*

BY BILL PLUNK

Launched in 1912, the USS *Texas* was already a throwback by World War II. But the *Mighty T* shone big and bright in both the Atlantic and the Pacific, earning five battle stars.

Hailing from El Paso, Bill Plunk had to build Trumpeter's 1/350 scale kit.

**A**s World War II 60th anniversaries scroll up on the calendar, there has been an explosion of new kits of all kinds — especially ships in 1/350 scale.

Such is Trumpeter's kit of the *New York*-class battleship USS *Texas*, BB-35 (No. 05340). Being from the Lone Star State myself, this was a must build.

Even though the kit depicts features that date from October 1944, after a refit and subsequent transfer to the Pacific, I decided to depict *Texas* in the Measure 22 scheme she wore for most of the war while in the Atlantic Fleet. I grabbed an aftermarket set of Master turned-aluminum and brass barrels for *New York*-class ships, along with a copy of *Squadron at Sea: USS Texas*, by David Doyle, as my main reference.

I knew the Measure 22 scheme would complicate things. So, the first order of business was a careful study of the instruction sheet and planning for a "modular" approach to assembly, painting, and finishing. The 37 steps outlined in the instructions will get it all together, but I knew I

couldn't follow them blindly from start to finish and get the best results. Skipping around within the steps was essential, so I developed a checkoff system on the instruction sheet to avoid missing anything.

## Hull

The primary assembly module was the hull. Split in half lengthwise, it had over-scale molded weld lines. I sanded these down to make them more in-scale. Vertical lines lost in the sanding were rescribed using a metal ruler and a sharp pushpin to restore lost detail, **1**.

Getting a solid joint was a combi-

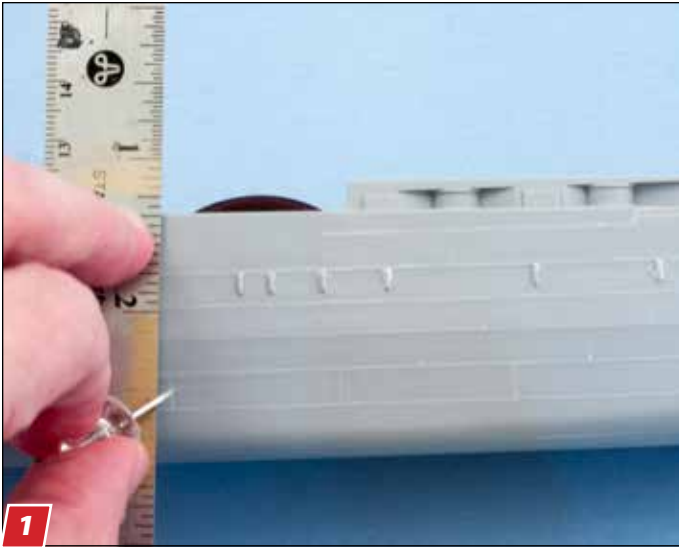
nation of the kit-supplied bulkheads, rubber bands, and bar clamps, along with a combination of tube and liquid glue in strategic spots. Left overnight in traction, the hull set nice and solid, **2**.

The stern details for the propulsion gear were added next. I replaced the kit's plastic

drive shafts with brass rod for greater strength and durability, **3**. The shafts and rudder were left removable to avoid damaging them during the rest of the build.

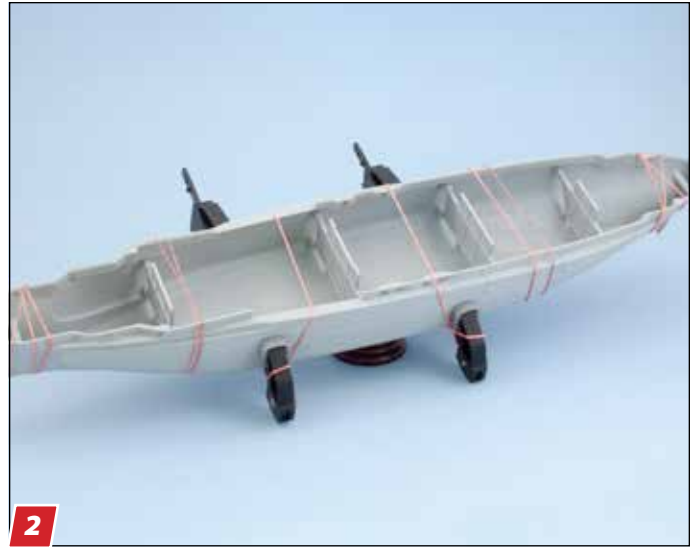
Test fits of the main

**2,800**  
Pounds of ordnance  
delivered by a two-gun  
salvo from one of  
*Texas*' 14-inch guns.



1

After sanding away overscale lines, Bill rescribes them. Though there are fancier tools, he gets it done with a pushpin and straightedge.



2

Persuasion, gentle and otherwise: Rubber bands help distribute the force of the clamps.



3

*Straighter and stronger* is the name of the game as brass rod replaces plastic propeller shafts.



4

Segments of sprue runners spread and strengthen the hull for a better fit with the deck.



5

After a flat black prime coat, Bill airbrushed insignia red for the antifouling red.



6

Masking the red and the proper amount of black, then airbrushing 5-N navy blue, masking again, and airbrushing 5-H haze gray at the top produced the boot stripe and upper-hull colors.

# A NIGHT to remember



April 15, 1912: Down at the bow, the Titanic's fate is clear – but earlier, many passengers had stayed with the ship rather than board lifeboats like the lightly loaded one in the foreground. Mike's shadow-box diorama features a forced perspective, with the 1/35 scale lifeboat making the 1/87 scale ship, figures, and attached lifeboat seem more distant.

## Forced perspective in a shadow box tells the tale of *Titanic*

BY MIKE MCFADDEN

Many people find the famous tragedy of the *Titanic* fascinating – and a few, like Mike McFadden, become obsessed with the story.

Mike writes: “When *Titanic* sailed in April 1912, she was the fashion statement of her day – luxurious, massive, and safe. Within a few days, the ship and much of what she stood for lay at the bottom of the Atlantic.

“The subject was just too enticing to pass up. Armed with Ken Marschall's book *The Art of the Titanic* – and my imagination – I decided to make a forced-perspective night scene of the sinking.”

A shadow-box diorama seemed the perfect medium. For the ship section that would be the endpoint in his perspective, Mike chose 1/87 scale – HO scale to model railroaders – for its wealth of period figures and accessories, from dapper businessmen to bushel baskets.

Building the hull and decks from sheet styrene, Mike showed about 150 scale feet of the doomed ocean liner. The layered construction allowed installation of and access to intricate interior lighting. Most of the 175 bulbs are dollhouse lights, with some Christmas stuff thrown in for good measure. If he had to do it over again, he would use more LEDs for ease



The ship's internal lighting is provided by a variety of light bulbs and power transformers. "A friend of mine said [the opened decks] looked like the inside of R2D2," Mike says.



Collapsible boat C is lowered over the side with a mix of first-, second- and third-class passengers. Mike cast the lifeboat in resin, making a master with planks of strip styrene glued to a vacuum-formed hull, then installed a tiller and benches made of styrene sheet and strip.

of maintenance, although he likes the old-time ambience of the yellow, incandescent glow. A felt backdrop hides external wiring and is perforated above by fiber-optic strands of various diameters to show the star-filled sky recalled by survivors of that frigid, moonless night.

To Mike, much of *Titanic's* tale was to be found on the boat deck and bridge, the area where the last remaining lifeboats were launched – "most infamously, collapsible boat C, which carried J. Bruce Ismay, head of the White Star Line," he says, pointing out the lifeboat hanging over the side. In

the boat are more than 40 figures representing passengers from first to third class. "Even in HO scale, I wanted to convey the emotions of that night," he says.

Many of the ship's fittings, as well as the collapsible lifeboat, were cast in resin from plastic masters. The davits comprise 25 pieces of resin: Each has three pulley mechanisms and a hand crank. Mike contoured curves with thick super glue to show the

Mike thermoformed two sheets of styrene around a dowel for the funnel, then used styrene-rod half-rounds and brass for details.

