

Building the MC in Zenda, Wisconsin
August 24, 2000

Eric Hood was kind enough to give me a tour through the Melges Boat Works to show how the MC is constructed. I had my camera handy and thought I would share some of the sights I experienced during this visit.

It was a very busy place with lots of boats in various stages of construction -- MCs, Melges24, Es, X boats.

We even found the 'father' of the MC, Buddy Melges, installing hardware on an MC.



The MC mold consists of two halves that are bolted together prior to laying down the gelcoat. As you can see, the color is a dark red so that any blemishes on the mold can be more readily identified and corrected prior to starting the building process.

The MC hull is built from the outside in. First, a layer of gelcoat is sprayed into the mold and allowed to dry. This is followed by a polyester-resin impregnated layer of fiberglass, a core in selected areas (e.g., the floor), and then another layer of fiberglass on top of the core.

We didn't have an MC in the process of being glassed, but found a crew performing that task on the deck of a Melges24. Note that they are rolling the top layer of fiberglass over the core sections.



Once the layers are in place, the entire unit is placed inside a plastic bag with hoses attached to it. Vacuum pumps are attached to these lines and evacuate all air from the bag, including any air bubbles that may have been left during the manual process of laying and rolling the fiberglass cloth.



The MC strongback is fabricated in its own mold and all lines are installed before the strongback is epoxied into the hull. The next few pictures provide additional details in case you wonder how and where they attached lines and blocks.

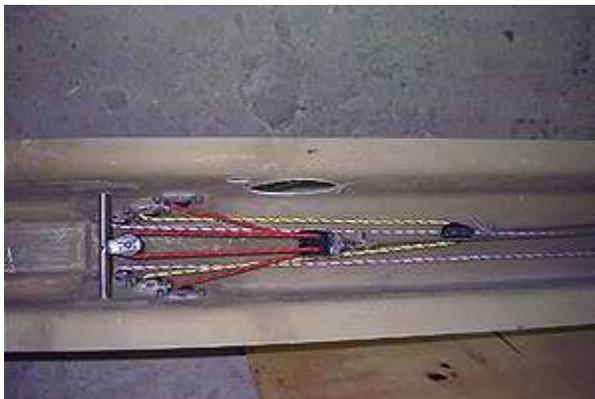
Front: Underneath the mast step showing access hole on starboard side.



Front: Hiking strap reinforcement plate.



Center: Mainsheet block backing plate and 4:1 vang purchase (red line). Double block 'floats' on line going back up to deck. Single block is fixed.



Center: Another shot of the center backing plate and the 4:1 vang purchase arrangement (red line).



Rear: Hiking strap and lifting bridle support plate.

After the MC is removed from the mold, it is placed in a special cradle that properly supports the shell for the next steps in the process.

This MC has had the strongback, bilgeboard boxes, and front bulkhead panels installed. Note the 'rolled edge' to which the deck will be glued later in the process.



This shows the front bulkhead attachments.



Note the reinforcements for the rudder gudgeons and the two blocks through which the shockcord runs that is attached to the board pull-down lines.



A look behind the bilgeboard box showing the reinforcements plus the aluminum plate for the board pivot bolt.



Note the core reinforced floor. Holes for the bailers have not yet been cut.



The mast step area of the strongback. Note the sidestay backing plate that has been glassed in underneath the edge of the hull.



There is a large aluminum backing plate underneath the bow plate.





A view of the MC deck mold. Note deck being finished in the back behind Eric.



After the deck has been attached to the hull, it goes to the finishing area where blemishes are removed such as any center seam imperfections due to the clam shell mold. There is someone working under the hull!



Not every MC has its hardware installed by Buddy but on this tour we caught him in the act!



This is where they keep finished MCs -- not many because they are in high demand!