

EMS 3D Scans a 4000 HP Raceboat

One of the premier builders of race boats is Mystic boats in Deland, FL. Mystic sells a 50 catamaran racing hull used by teams like Geico Racing to dominate the Turbine Extreme Class. The teams purchase the hull, turbine engines and other parts from various sources and custom build their own boat to compete.

The Problem

A company had an idea to build a high end boat similar to the Geico race boat but offer it to the public as a complete, ready to go pleasure boat. Instead of a stripped out race boat with minimal creature comforts they decided to add a bathroom, additional seats and a very luxurious cockpit. To do this they needed to 3D scan the entire boat including the engine bays, interior of the sponsons and cockpit. This would allow them to design everything and make sure it fits perfectly into the boat.

The Solution

EMS was contacted to 3D scan the boat. The company then started with the cockpit CAD file provided by EMS so they could design the instrument panel, seats and their locations. This will speed up the design and engineering process as they have an exact replica of the inside of the cockpit.

Using their Surphaser 3D scanner and their handheld Z Scanner Z800, EMS was able to 3D scan the boat interior. The Surphaser was placed on the floor and did a 360 degree scan picking up most of the interior. The handheld Z800 scanner was then used to "fill in" the missing data. The Z Scanner is very portable and can get under the dash and other tight places the Surphaser will not reach. Since all 3D Scanners are line of site using these two 3D scanners made the project go much faster.

Once complete the two sets of scan data were aligned and merged together. EMS then used their RapidForm 3D Scanning software to build a feature based solid model of the complete interior.

Conclusion

When it comes to 3D scanning boat, vehicle or other interiors EMS can use a combination of 3D Scanners to capture all the data quickly and accurately and build a surface or solid model.

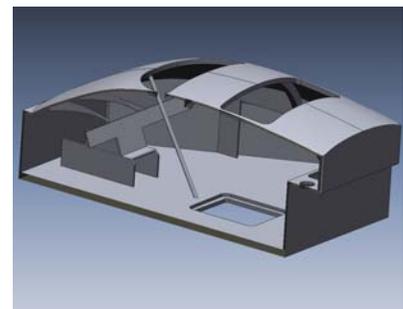
To learn more visit www.ems-usa.com



Geico Turbine Extreme Class Race Boat



Interior of cockpit



Cutaway of finished interior CAD model