



Mark Twain

By the Mississippi...

Text and pictures by Hoexbroe

Description: Stern wheel paddle steamer as used in the Disneyland theme parks.

Scale: 1:49 (minifig). However; as the Disneyland Mark Twains themselves are miniatures (5/8 scale) the MOC's scale relative to the Disney model is 1:31. In other words; This MOC is a model of a real-life steamer, not the Disneyland® model.

Length: 103cm (130 studs)

Width: 26,5cm (33 studs)

Height: 52cm (54 bricks)

Pieces: 20.000 (estimate)

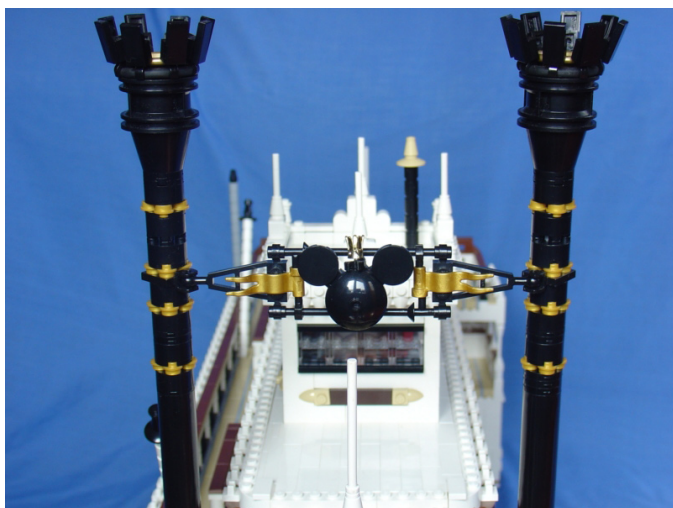
Building time: 35 days.

Made by: Henrik Hoexbroe (<http://www.mocpages.com/home.php/19323>)

The idea of building a paddle wheel steamer has always been present, as it is a spectacular type of transport. So when I saw Team Morenté's "King of Mississippi" MOC on the HispaLUG forum, I knew that eventually I would have to do one too. Now, some 9 months later I am proud to present my latest MOC; The Mark Twain paddle steamer!

The choice fell on the Mark Twain only after some time. Firstly I "mocked" around with different basic ideas; front style, paddle wheel(s), width, chimneys, etc.

The first decision was that the boat had to be a sternwheeler, as I only had material to build a single paddle wheel. Searching on the internet, different ships were investigated, and finally I decided on the Mark Twain, which was a good thing, as it is the only paddle wheel steamer I have actually been on myself. (In Disneyland Paris)



Construction

The building techniques used for this MOC are very similar to the ones I used for the Calypso MOC (Presented earlier, in HispaLUG Magazine 006), with the exception that this time I didn't see the need to do the entire bottom and underside of the boat, as river boats are extremely flat anyway. So this MOC is "just" a water-line model.

The decks are built using tan 1 stud thick bricks (some 2 studs thick ones used for the lower deck) placed sideways (SNOT)



with grey plates between each layer of bricks. –Thus giving the characteristic “wooden” look. The white roof on top is done in the same way. Actually I used surprisingly few tiles, compared to the total number of pieces in the MOC.

The curved front consists of 1x2 plates bend to fit. Note that the pieces are not stressed; the minuscule gap/tolerance

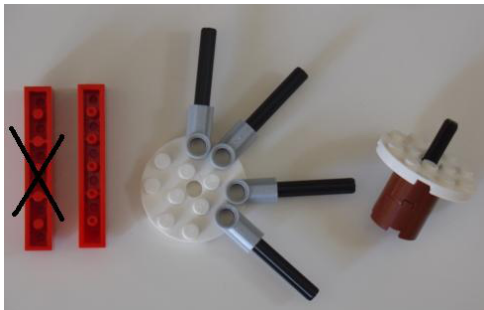
between pieces is enough to get the desired effect when using enough of them.

The single most difficult part of the construction was the paddle wheel. The real Mark Twain actually has 12 scoops, each divided into 4 sections. The best I could do was 8 scoops in 3 sections.





The solution of connecting a brick on the end of a Technic X-axle was discovered by trial and error. Only bricks with hollow tubes inside work in this configuration! (See the photo)



these parts are perfectly and correctly aligned and connected to each other, passing through tight openings in the decks.



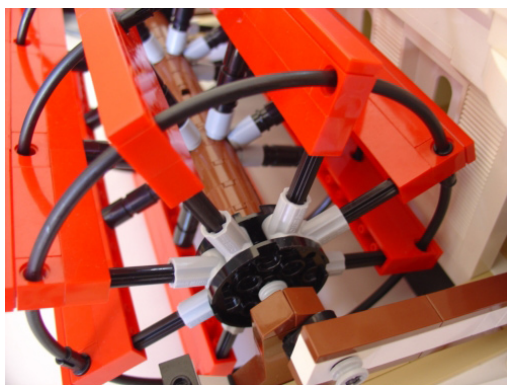
Interior

During the construction of the boat, I published some WIP (Work In Progress) photos on the HispaLUG forum. (Normally I finish my MOC's in a week or two, but as this MOC was taking much longer than anything I had ever built, I wanted to let the guys there know that I was still alive and active...)

There on the forum, there were repeated requests for "interior decoration" for the MOC – a point I normally don't worry too much about when I build. But it turned out to be a good suggestion, as that way I could design the MOC as a "cut-away" model, totally open on one side (to allow the interior to be seen easily). This solution was very practical in order to save lots of bricks and plates, which would otherwise have made the MOC too big for my current LEGO® collection, and thus too expensive to complete.

Also, the interior construction was a lot of fun to do! (and my two daughters love it, as it allows them to play with the minifigs aboard.)

Even with the cut-away savings, the MOC hugely surpassed



The 4 black rings "lock" the whole construction, and keep it very sturdy.

Special care was taken during the construction of the boiler, conducts and chimneys, as these are some of the most characteristic points of a river boat. It should be noted that all

the amount of bricks available in my collection, so a PaB order was needed. I have bought bricks from PaB a couple of times before, but always grouping together bricks of general use and interest, never for a specific MOC, and never for such a huge amount.

By way of comparison, the pieces bought specifically for the Calypso MOC were around €15. This order was more than 10 times that amount! So this MOC kind of marks a new high for my constructions.

The photos series published – and the presentation of the MOC in real-life – is always done in such a way that the discovering of the interior detailing comes as a surprise, only after looking twice!

Much care has been taken with the MOC in relation to the colours used. All walls for the cabins are 2 studs thick. All windows and door-ways are doubled, to allow the model to

have window frames and walls of different colours on the outside and the inside. As the model is so huge, sufficient space is available on the inside to allow a decent detailing of the interior, even though the walls are two studs thick.

The interiors includes: boiler-room, bar, luxury cabin, sleeping cabins #1, #2 and #3, captain's cabin with office and finally the pilot's steering cabin.

In order to be sure about the accuracy of the MOC, I had to study a little about how a river boat works. For example I learned that the two impressive smoke-stacks are only for the smoke from the furnace, while the vapour outlet from operating the pistons are at the back of the boat, where the cylinders are, and that not everything is installed in the boiler-room as I originally thought. It can all be seen on the MOC, if one looks closely!

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