

3D Printing Freitag Foundry and derivatives

📁 Journals (was Blogs)

GNNPNUT

Dec 12, 2021 · Edited

"Model Railroader" had a two part series in the April and May 2009 issue on the general methods Dean Freitag used to build "Freitag Foundry".

I stumbled across these articles when I started searching for scale drawings to make my own crane for my IH Farmall West Tractor Works. I already have one Walthers crane on the layout, and I was looking for a more modern crane than what is represented in the Walthers kit.

That article search led me to the MR article. Not only was the crane of a style I was looking for, but the whole Freitag Foundry complex fits quite nicely into an area that I was planning to use for a silicon foundry facility. Quite honestly, this building looks far more interesting.

Arbe built this foundry using traditional methods back in 2015, and a fine looking building resulted.

<https://model-railroad-hobbyist.com/node/22614>

The above link also has information on where this foundry is located, and some history.

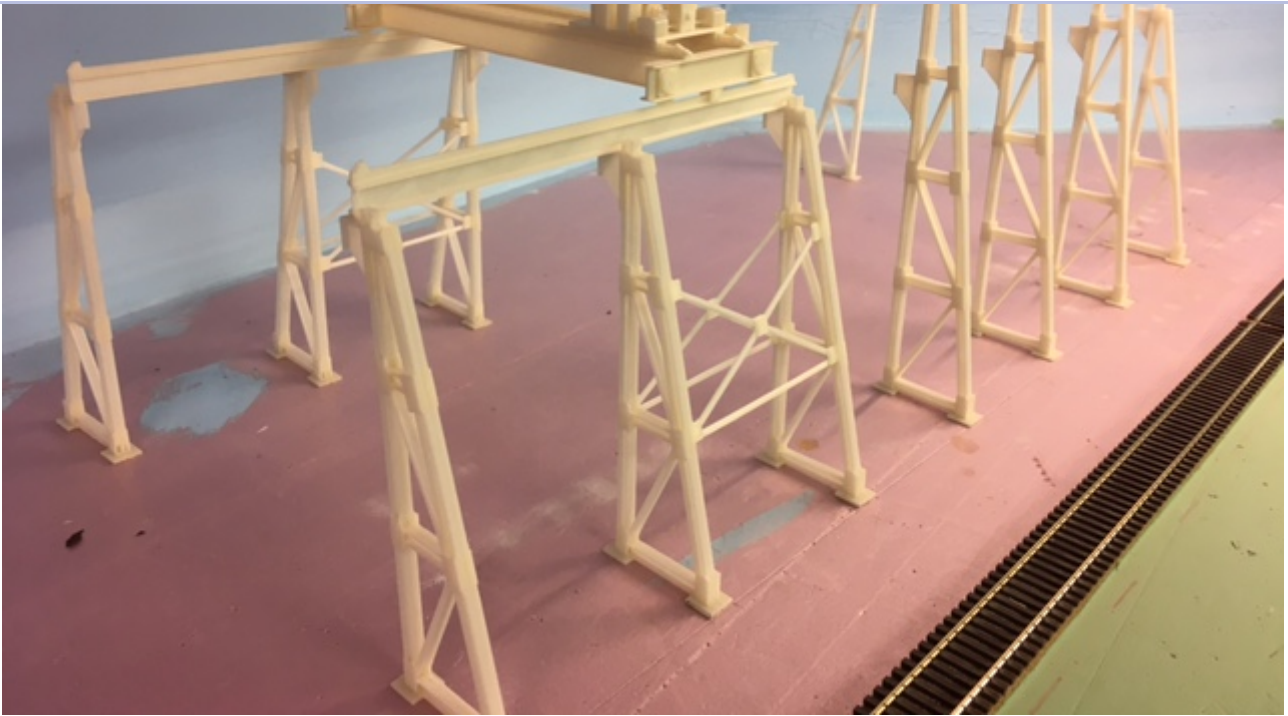
Unfortunately, the crane is too big as utilized in the Freitag Foundry setting. No problem, with 3D printing, I can use everything I draw in Fusion 360 and scale it down in Prusa slicer. The only item I will need to keep the same size as Freitag will be the operator's cab, and the ladder up to the operator's cab. Everything else scales down quite nicely into a lower tonnage and smaller footprint crane.

Here is what I've designed and printed to date for the foundry:

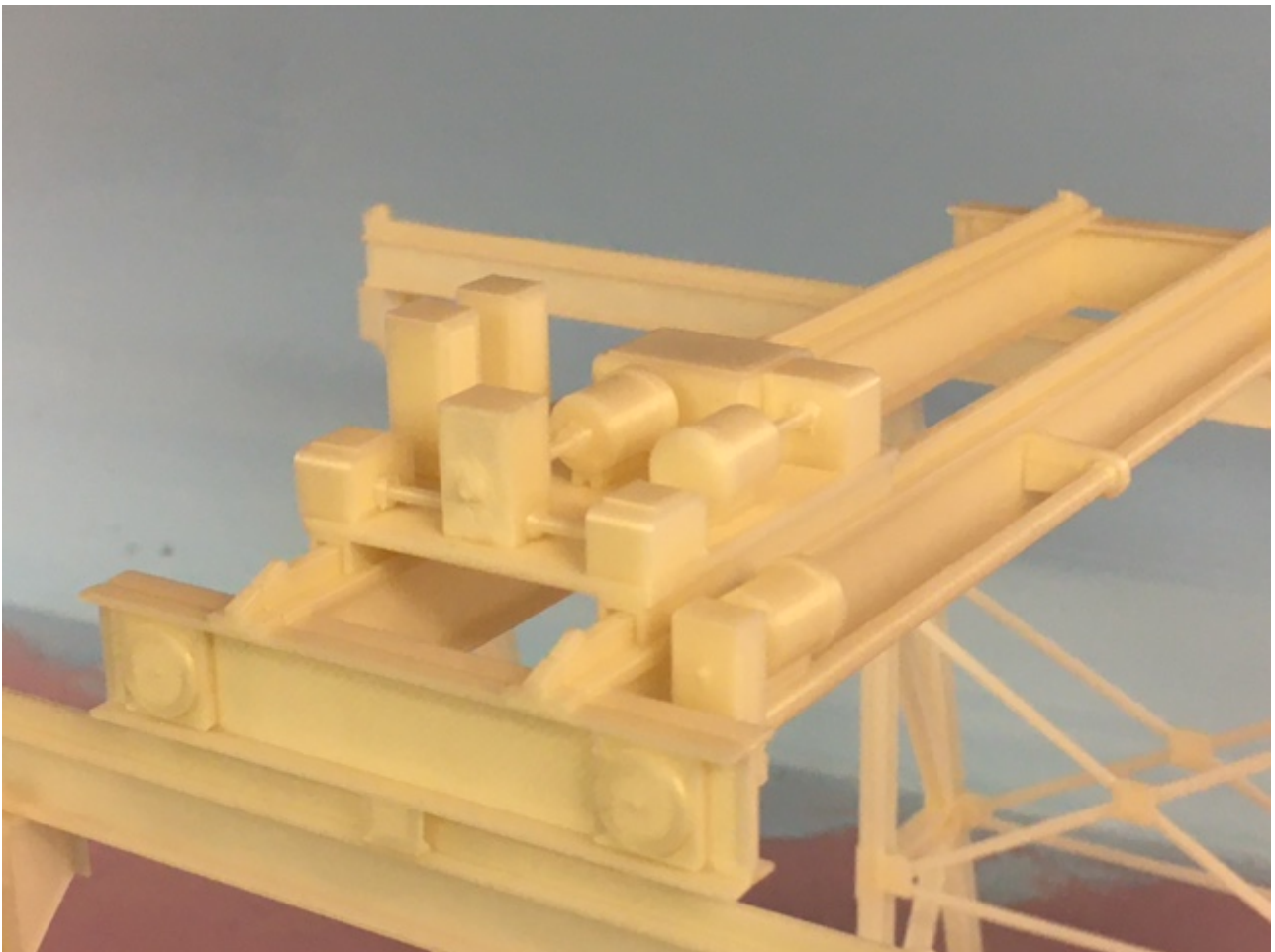
Overall view:

3D Printing Freitag Foundry and derivatives

📁 Journals (was Blogs)



Here is a close up of the trolley::



Now let's see how it looks reduced to 61.74% of size and test fit at the tractor plant:

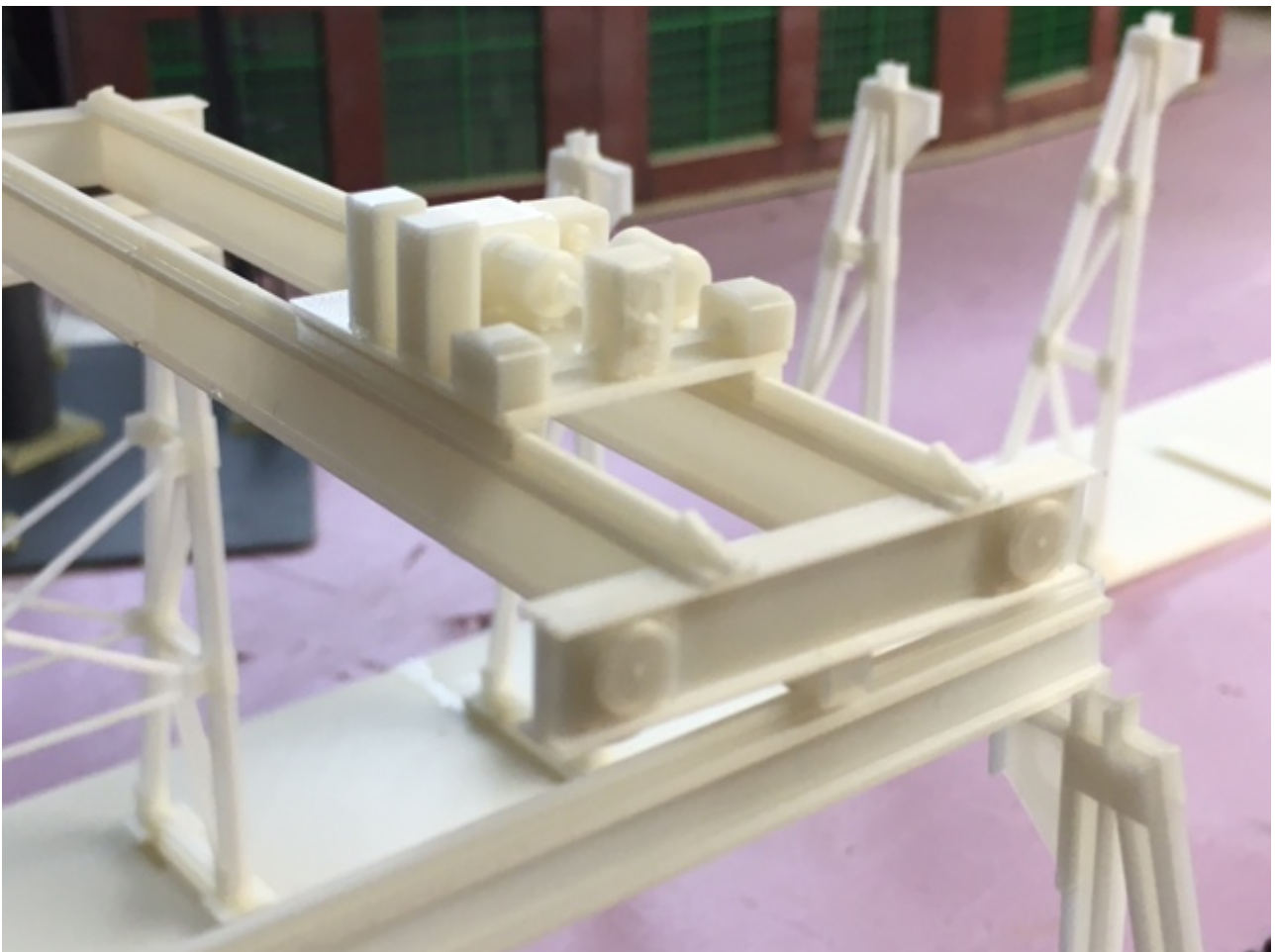
3D Printing Freitag Foundry and derivatives

📁 Journals (was Blogs)



The length of the crane was determined by the length of three 52' 6" flat cars.

Here is the trolley detail



3D Printing Freitag Foundry and derivatives

📁 Journals (was Blogs)



3D Printing Freitag Foundry and derivatives

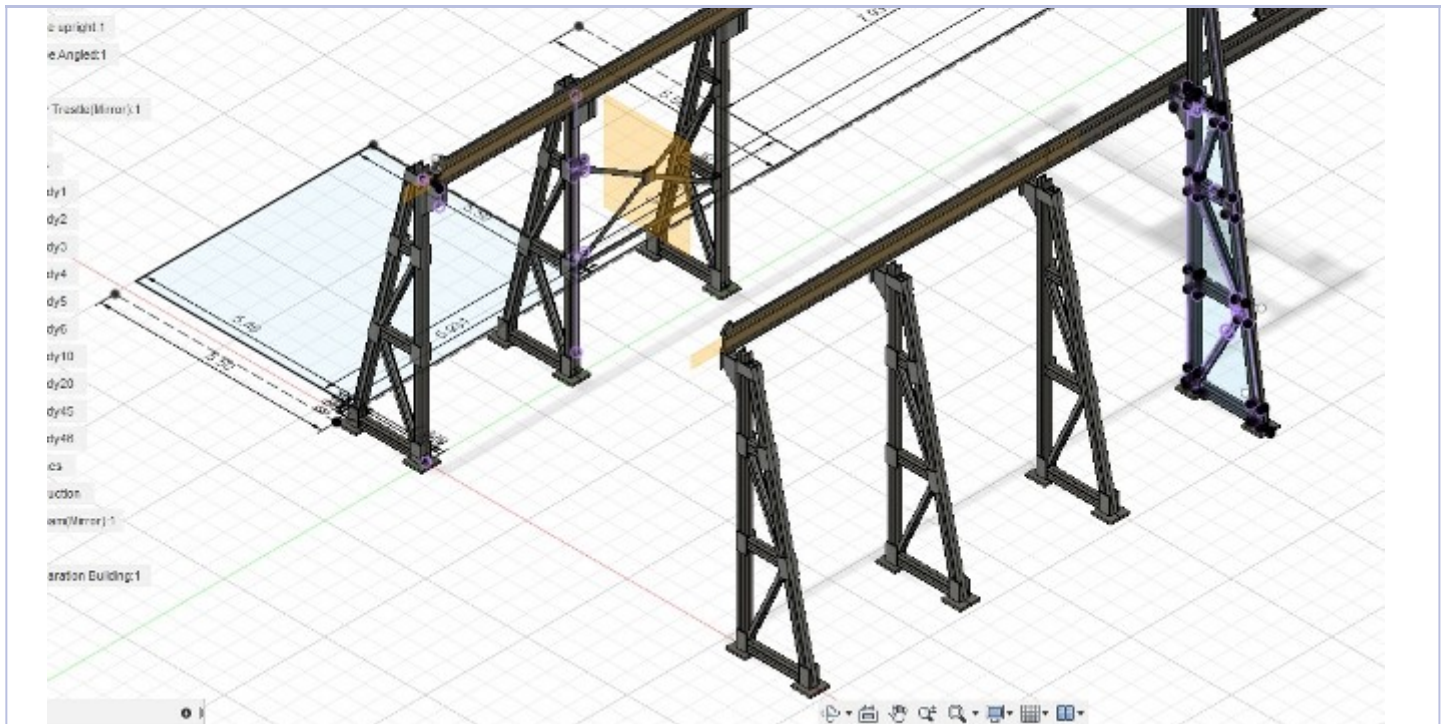
📁 Journals (was Blogs)



I try to design in Fusion 360 every day to ensure that I continue to learn more about the program, and make sure I keep my skills sharp. Here is an overall shot of the 3D model for the Freitag Foundry to date. I still have a lot to design.

3D Printing Freitag Foundry and derivatives

📁 Journals (was Blogs)



One limitation I've run into with Fusion 360, which is probably a function of limited RAM on my computer is the ability to create repetitive patterns in the program. I wanted to 3D print the corrugated walls, but after about 4 inches of the pattern equivalent to 0,040 Evergreen corrugated siding, the program locks up. So for now, I will 3D print the building core, and use Evergreen siding over the form.

This design will also spawn at least two open top loads.

Regards,

Jerry

[GNNPNUT's blog](#)

👍 1

JamesWillmus

Dec 12, 2021



3D Printing Freitag Foundry and derivatives

📁 Journals (was Blogs)

Ideally, it would be great to have 64GB of RAM, a 4k gaming quality GPU and a processor that can be overclocked into oblivion but such a machine would cost northwards of \$2k.

James Willmus

Website: modeltrainmaker.com

👍 0

johnsong53

Dec 12, 2021

Good Job!

I knew Dean and he would love what you are doing with his designs. He was one of the most helpful modelers I have known. When I was modeling the steel industry on a previous layout he provided me with blueprints of everything I need to model and even turned some bottle cars on a lathe (before plastic was available) and shipped them to me in Texas. We lost one heck of a modeler when we lost Dean.

3D Printing Freitag Foundry and derivatives

📁 Journals (was Blogs)



[My blog index](#)



👍 0

[>> Refresh page](#)

🌐 English