



Tiny House Blog

Entry #3... From the Ground Up

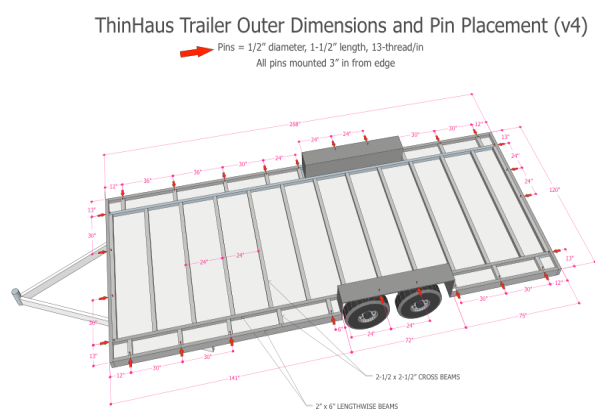
02/10/2020

Just like any other house, if the foundation is weak, the structure is weak. The foundation in our world is the trailer and if we could give you any one piece of advice about building a tiny house ... if you are looking to save money on a tiny house build, pick somewhere else, anywhere else to shave pennies. Do not scrimp on the trailer. Do not buy a used trailer and do not use a trailer made for any other purpose than a tiny house. Just don't do it.

ThinHaus started with trailer designs from all over the industry and brought in experts from the utility trailer world to design the ThinHaus trailer. It is a rock solid, moveable platform that is constructed to last forever and provide the most solid base possible. We do not make it. It is made for us by folks that do this for a living according to our design ... sort of like Apple and the iPhone.

There are no secrets here. It's steel on steel on steel on steel ... and some rubber.

If you want one now, email us and let us know. We always have a few in stock and would be happy to sell you just the trailer. If you want to build your own trailer just like we do, here's how we do it, our design decisions and what goes into it.



ThinHaus Model A2410 Trailer

Let's start with the most obvious design criteria ... a ThinHaus trailer is 10' wide. We all know that 8 1/2' is the max you can tow without a permit, but while towing is really important, it's a thing that only gets done once or twice in the life of the tiny house and then affects you every day. The extra 18" is really, really important and we figure that dealing with the hassle of towing a wide load is a small price to pay. The length of 24' is just about the max to tow with a F250 truck. Go any bigger and moving a tiny house is a much bigger problem.

Next, we use drop axles. This is maybe the biggest difference between a ThinHaus trailer and everyone else. Drop axles give you four more inches of headroom in the bedrooms and that's a big deal. They cost a few hundred bucks more and you have to order them special, but it's a critical design component right from the start.

Everyone has lights and wheels and corner-jacks and brakes (you must have a brake controller in your truck to pull this around, so get one now if you are doing any towing). They may not have a steel sheet under belly plate, but it's important and not expensive ... as are properly positioned 1/2" – 13 threaded studs every couple of feet around the edge so the tiny house doesn't slide off the trailer when you stop.

Once the trailer is ready to start building upon, we use special flexy, industrial sealant everywhere that is still open to the ground. No matter how good your welders are, there are exposed spots. Then we do something strange, but important ... we dust the trailer with diatomaceous earth. If you don't know what that is, Google it. It's neat stuff ... very natural ... dirt cheap (because it's sort of oceanic dirt) ... and really pisses off bugs. If a bug does find their way into the trailer undercarriage, this will basically stop them. It's a natural, non-toxic critter repellant that lasts almost forever.

Then we insulate the space between the belly plate and the top with closed cell foam and rock wool. No spray foam is ever used in a ThinHaus. It's a material that off gasses chemicals that are at best questionable and at worst, carcinogenic. You won't find them anywhere in a ThinHaus. A little added bonus is the reflective foil on the insulation that provides a radiant barrier type of



ThinHaus Trailer Insulation

OSB floor boards are glued and screwed into place (just the same as we do on a conventional stick-built house). A double coating of water proof deck sealant is applied and our trailer is ready for framing.



Notice the Pin Protectors ... Safety is #1 on any Job Site
(the red chalk lines tell us where the steel cross beams are for screws)

If you are doing this yourself, figure a couple of days to get this done and get some help. Those floor boards are heavy and awkward, especially when trying to work around the threaded pins. Pro tip: be sure to seal the spaces between the boards even if they line up with the steel beams. Thermal losses are sneaky and you want to do all that you can to stop them.

For more data and building details concerning the ThinHaus Model A2410~Onyx, email to: engineering@thinhaus.com and we'll share the specifications and techniques that we use to build our industry leading ThinHaus.