

# Casita Rear Accessory Hitch



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**Introduction:**

To install this hitch, you'll need have basic handyman skills such as: be comfortable using a tape measure, drilling 8, 7/16<sup>th</sup>'s holes through steel and use basic hand tools. You'll also need to be capable of maneuvering the 40lbs hitch which is bulky. If you're not capable of these tasks, please seek help.

**Caution:**

This hitch is intended for lightweight accessories such as a bike rack, basket, or other lightweight accessory. Periodically check the bolt torque and inspect the hitch and Casita frame.

**Warning:**

Changing the weight distribution of the trailer will affect the dynamics of towing your Casita. Be aware that the hitch itself weights 40lbs before adding any accessory! Before towing, verify trailer tongue weight to be within Casita's recommendations. Tongue weight recommendations are typically 10-15% of total trailer weight.

**About:**

Much time was spent trying to figure out the best width to make the hitches to ensure fitment on most models. These hitches are intended to fit onto Casita frames that use 3" C-Channel as the main structural runners. There are older frames around the late 1980's that use 2 pieces of box tubing in the rear. These hitches are not intended for use on this style frame. Narrow model hitch is for frames of minimum width of 45 15/16" or larger. The wide model is for frames 46 7/16" or larger.

**What's in the box?**

- Hitch (Either the narrow model or wide model.)
- 8 Bolts and 8 Nuts. Both of these are flanged, removing the need for washers and the nut has deformed threads which remove the need for a locknut.
- 16 and 24 gauge spacers, quantity 2 each
- Drill bit (if ordered)
- Transfer punch (if ordered)

**General hitch location:** The hitch was designed for the top of the crossmembers to sit directly against the bottom of the frame. This is intended to make installation easier and to minimize the loss of ground clearance. The receiver part of the hitch is intended to protrude 3" past the bumper so that most hitch accessories clear the spare tire.

**Tools for Installation:**

- Center Punch or 1/2" Transfer Punch
- Silver Sharpie (optional, but shows up very well on black paint)
- Jack (hydraulic floor jack, scissor jack, anything with decent stability works)
- 1/8" or small bit for pilot hole (makes drilling the larger hole easier and less prone to walking)

- 7/16" bit (I like Dewalt Pilot Point drill bits)
- Drill
- 9/16" Wrench
- 9/16" Socket, Socket wrench, and Torque wrench

### **General Hitch Instructions:**

**Step 1:** Chock Casita wheels!

**Step 2:** If your frame is especially dirty you may find it helpful to wash the areas off where the brackets will be located. Refer to the drawing for locations.

**Step 3:** The center of mass of the hitch is located ~14.5" from the rear of the receiver. Place the jack at this point to balance the hitch.

**Step 4:** The rear bracket should be ~3/4" from the rear bumper. For clarification, refer to the attached drawing. Note that the hitch can be positioned forward/rearward depending on the clearance desired for a hitch accessories. The location of the hitch in the drawing provides clearance with the bumper so drilling is easy and the hitch clears most stock jacks and stabilizers.

**Step 5:** Double check your hitch location and mark the holes. Make sure the hitch can't move while marking the holes. Vise Grip style C-clamps are great or traditional C-Clamps work as well for holding the hitch still. My preferred method for marking holes is to outline the holes in silver sharpie and then use a 1/2" transfer punch to center punch the holes. If you don't have a transfer punch, outline the hole in sharpie and then center punch after the hitch is out of the way.

**Step 6:** Make sure the hitch didn't move and that all your marks correspond with the correct holes.

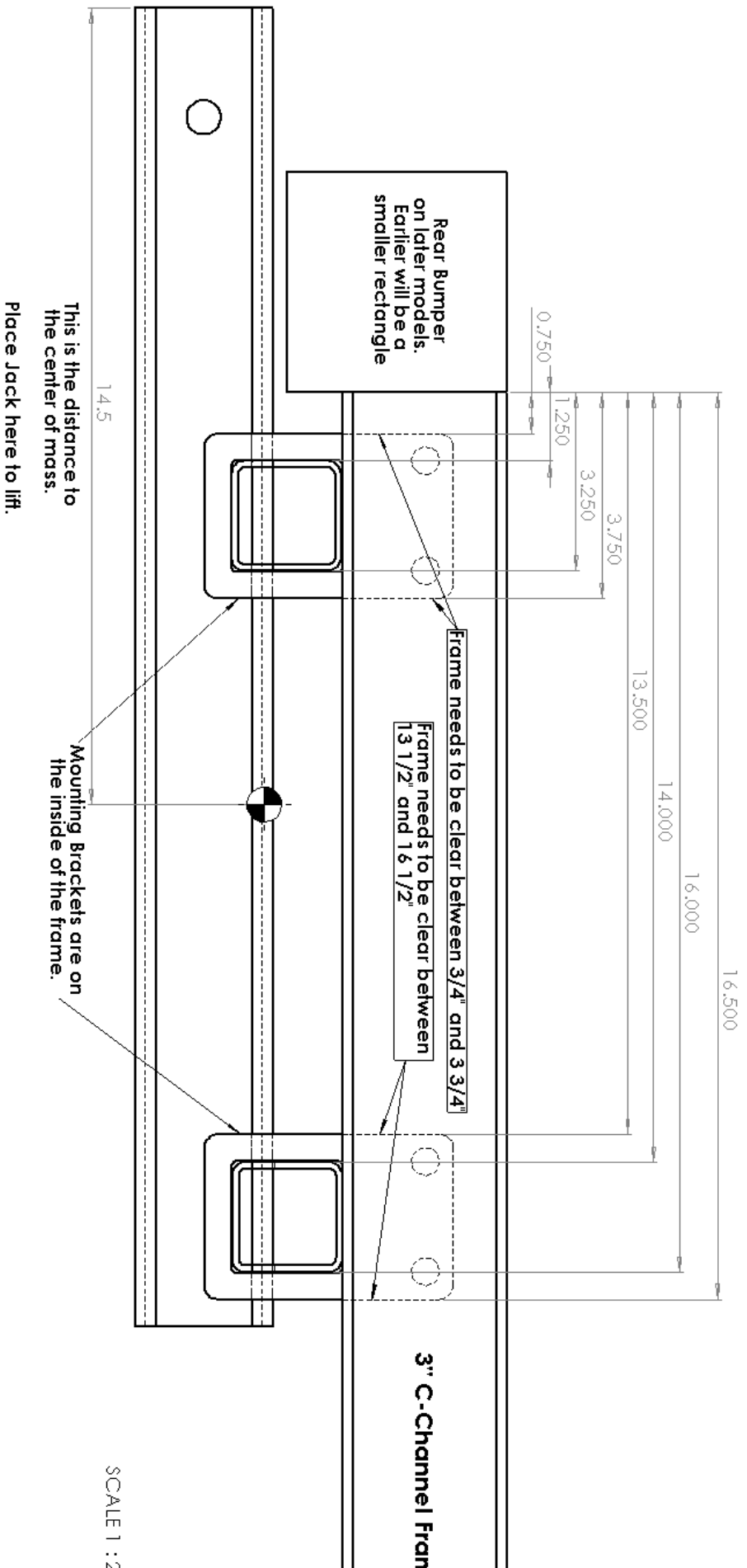
**Step 7:** Lower hitch and place it aside.

**Step 8:** Drill holes. I like to start with a 1/8" bit as they tend to walk less. Step up to an intermediate size bit or just go to 7/16". Deburr the holes and give them a shot of spray paint if desired.

**Step 9:** Jack the hitch back into place and get all 8 nuts and bolts started. Direction of the bolt is your personal preference, but I like to insert them from the outside in, so you see the bolt head instead of the nuts. Note that these are flanged nuts/bolts and that the nuts have deformed threads, this removes the need for washers and lock washers. The deformed threads are a special type of lock nut removing the need for lock washers.

**Step 10:** Make sure the top of the crossmembers are against the frame and tighten the nuts/bolts. The bolted joint should be torqued to ~44ft/lbs. This ensures the correct preload to achieve a proper bolted joint.

**Step 11:** Check the torque on the bolts after the first trip or 50 miles. After that periodically check the bolts and make checking the bolts part of your Casita routine!



Rear Bumper on later models. Earlier will be a smaller rectangle

Frame needs to be clear between 3/4" and 3 3/4"

Frame needs to be clear between 13 1/2" and 16 1/2"

This is the distance to the center of mass. Place Jack here to lift.

Mounting Brackets are on the inside of the frame.

3" C-Channel Frame

SCALE 1 : 2