

The Tower Treasure

By Fred Perkins WB4BAG April 2020

Having made a deal for two crank-up towers, it became time to take them down and transport them home. I thought it would be an easy job, since Jeff, WB3ISP and Rich, WB4EHG both offered to assist. In addition, a couple more buddies, Tony and Jason, helped us out.

I don't know why, but I planned to start on a Friday instead of the usual Saturday project. As it turned out, we were there Friday, Saturday and Sunday!

The seller, Dave W4DN, had three towers: two crank-ups (70' and 54') and a third tower, a Rohn 25 that was a guyed 46 footer. Somewhere along the line, we agreed to help him lower the Rohn. He sold his house and is moving to Sebring.

The first tower (shown here) should have been a breeze. It was a winched tilt-over after first being nested in the down position. All we had to do is remove the antennas at the top while the tower is still vertical and then crank the tower over after positioning my flatbed trailer to lay the tower down onto. [Pete, N8PR taught me this when we lowered Ron W4BP's 72 footer onto his trailer. He made it look really easy].



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Our only problem was that there were some horizontal tree branches in the way, just above the bed of the trailer. Well, we thought it was our only problem... While removing the first antenna, a wooden broom handle appeared out of nowhere, fell horizontally through the tree branches, and hit me in the head, breaking in two! Then, it turns out that the thrust bearing at the top of the tower had a frozen setscrew. We needed to loosen that setscrew to lower a 10 ft pipe holding up the second antenna. There was no way to reach it otherwise. We did all we could that day and went home with an empty trailer.



This is as far as we got the first day. Jeff couldn't get the setscrew loose to lower the pole in order to get to the second antenna.

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The next day, with renewed energy, we all set out again for the 45 minute trip to our South Miami “adventure”. We still couldn’t get out the setscrew, but finally, after several cuts with an angle grinder, we freed up the pole and removed the rotator and antenna.



*Finally!
The first tower is almost
ready for tilt-over.*



Now for the tilt over. The tower will be tilted to the left and onto the trailer. Jeff was concerned that the cable was too deteriorated. I thought it would hold, at least enough to get the tower tilted down onto the trailer.



Maybe the cable would have held, but a tree branch hung the tower up at about 30° above the horizontal. The “uncrunker” person who was lowering the tower, let the cable go slack. When the branch gave way, the inertia snapped the cable – fortunately, nothing was damaged, but it did get our attention! Now with the first tower (70’) on the trailer, we thought the rest would be easier. But by now, it was the end of the second day. So we maneuvered the trailer inside the fenced yard and went home for the night.

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The next day, with somewhat renewed energy, we made it back to the South Miami “adventure”. Our first task was to climb the second tower and remove the antennas. It went smoothly for a change.



Then we ran into a problem: the tilt-over structure on the second tower was not attached to the foundation. We spent some time trying to figure out how to bolt things together to use it, but finally decided to just tilt the tower over by hand.

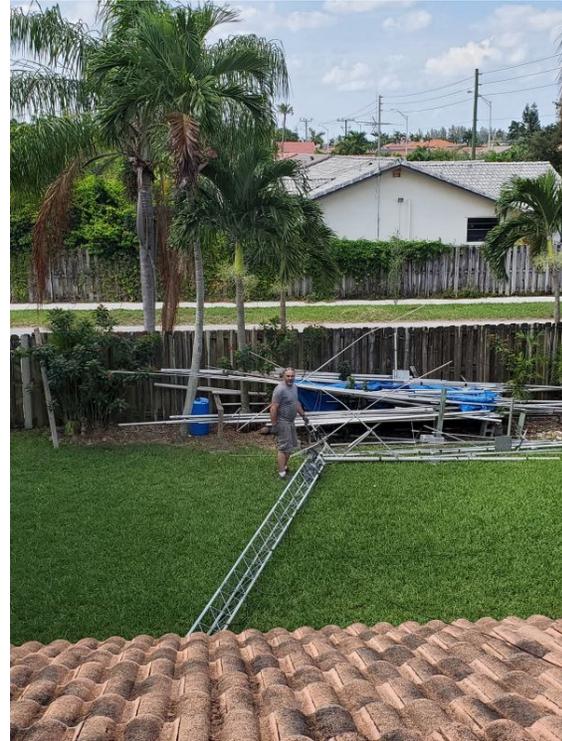


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After rigging several ropes and strategically placing people to lower the tower, we were able to slowly bring it down. At about 20° above horizontal, Jeff supported the tower (by himself!) and we ran over to help lower it the final few feet. Success! But there was one casualty – a small papaya tree that I snapped in half. Needless to say, stints didn't work to hold it together.



Now, with only the Rohn to go, we knew we'd be home before dark. Since this tower is guyed, it would need to be really secure for Jeff to climb. Close inspection showed that the guy ropes were attached to anchor points with long springs – like the ones you used to find on screen doors. Being not secure enough, we decided to lower the tower without removing the 10' sections one at a time. After carefully choosing some anchor points and using the guy ropes to lower the tower, we started to tilt it over. The plan was to stop at about 10° above horizontal and remove the antenna. It didn't go quite as planned.



One of the anchor points we used for the ropes was on the second tower, since it was still connected to its foundation (but laying horizontally on the ground). That became a slight mis-calculation. As we lowered the Rohn with block and tackle, anchor point we used pulled the top section out of the horizontal nested tower, like a piston coming out of a hydraulic cylinder! Slowly, but unstoppably, the Rohn lowered to the ground. All the way to the ground.



Here is the “extended” top section of the “anchor point” that pulled out from the rest of the nested tower. I was yelling at Tony to watch out, but his back was turned as he was leading out rope to lower the Rohn and kept responding to me that he was ok and clear, not realizing the top section was heading right for him like a battering ram. Fortunately it stopped before it reached where he was standing.



Assessing the damage to the bent antenna, Dave later declared it an artsy wall hanger. Finally! All towers are down.



We managed to grapple the second tower onto the trailer, loaded the miscellaneous parts and took off. Oh, and the bees – I forgot about the beehive. That's another story!

Special thanks to Rich WB4EHG for taking all the action shots. This couldn't have been done without the climbing skills of Jeff WB3ISP and the help of our other buddies. Thanks guys!