Adding helper springs to drop down slide

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Let me first say that I am not the first person to add garage door springs to a flush floor slide. Ludwig Goppenhammer from Colorado added them to his ’05 and I saw them also on a vintage Discovery. This is just how I did it

Many of you read a thread where I talked about improving performance of my flush floor slide. My slide would come to a momentary stop then slowly climb the ramp. My heart was in my throat every time.

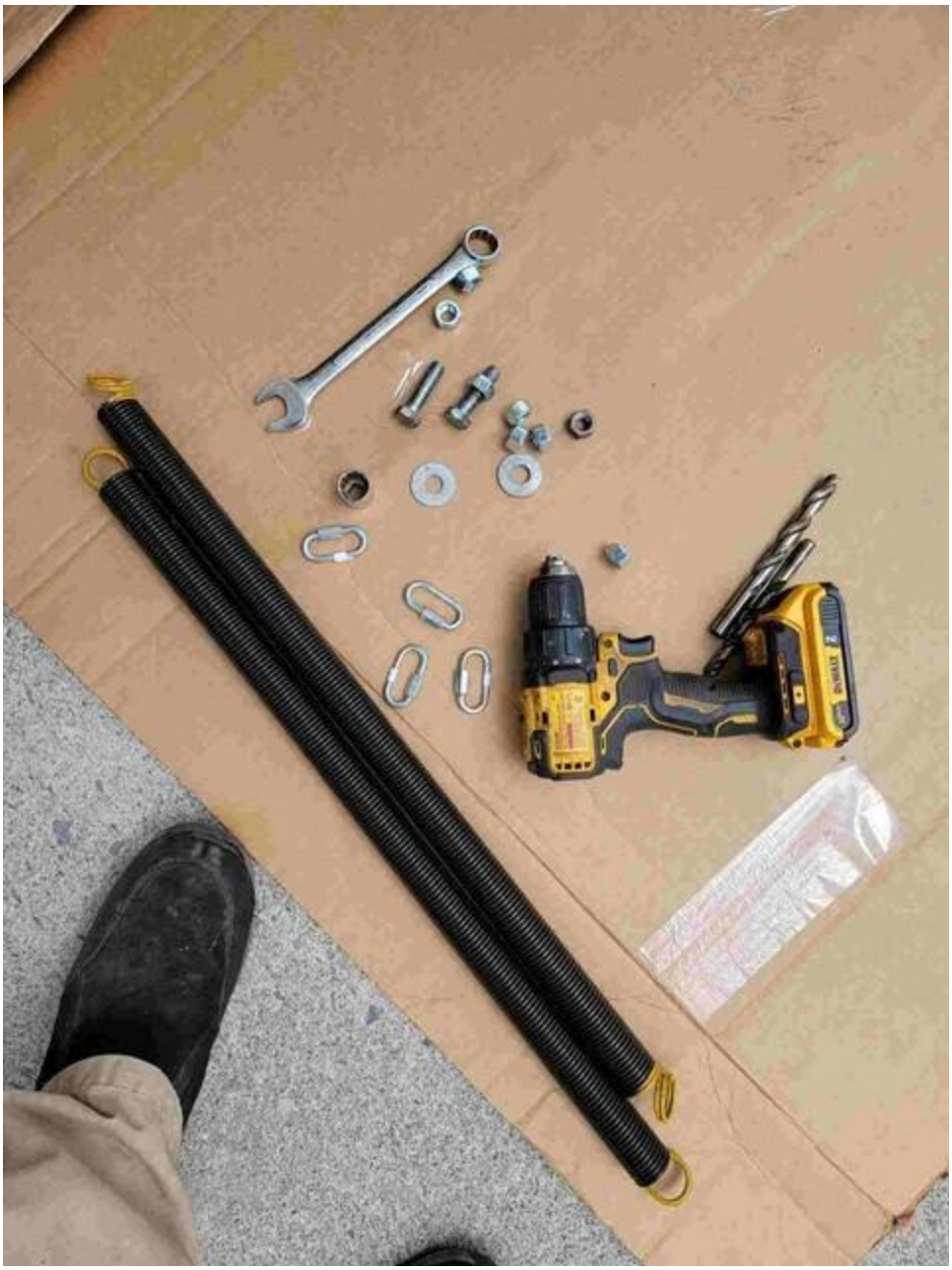
Note this is not a full wall slide although the same thing MIGHT help if the full wall slide is struggling.

I first went through a design and implementation process to build a better controller using a Trombetta relay instead to the cheap ones on the original controller. Then I added an additional pair of 10 gauge wires to the original 8 guage wires to decrease the voltage drop to the slide motor.

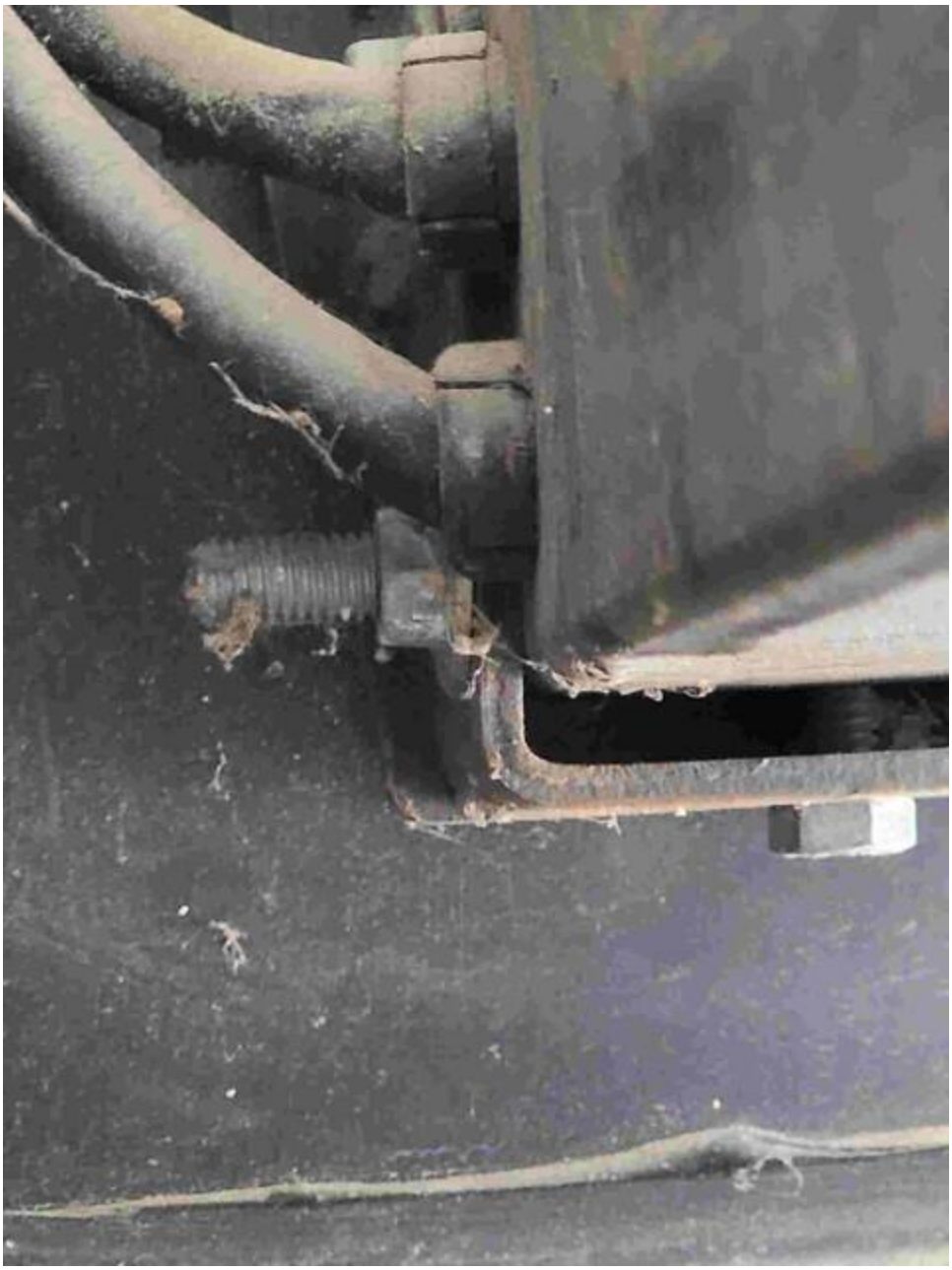
All this helped noticeably but the slide still struggled to 'climb the hill' when retracting…just not as bad. After it was over the hump it was fine. There are links to short before and after videos at the end of this post and you can compare the before and after results for yourself.

So a couple days ago, I was cleaning out Carolyn's garage and ran across a pair of 160 lb garage door springs. Hummmmm. Sliding under the coach, I quickly realized this would be pretty easy.

Below is basically what I used on each side.

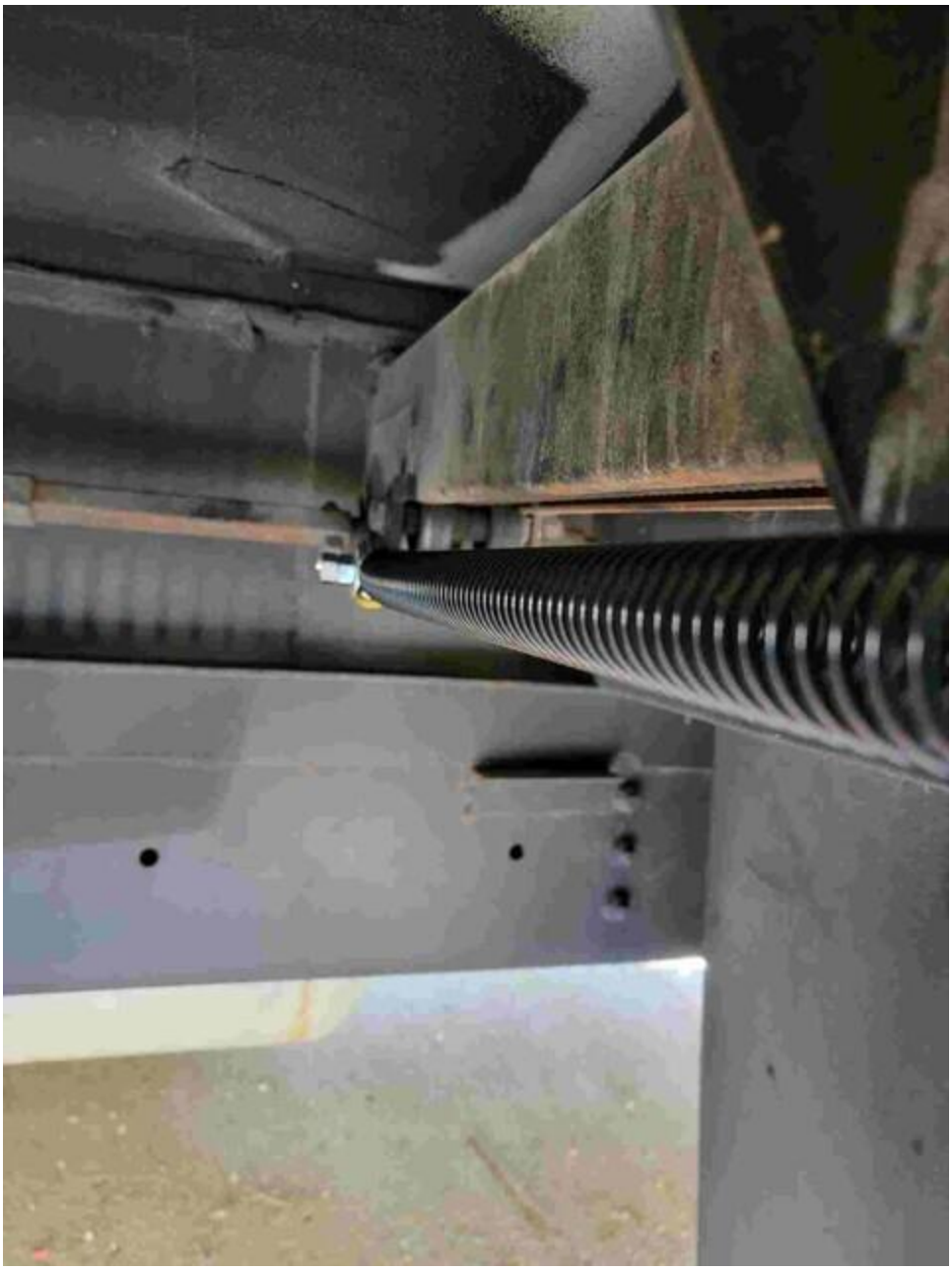


On the outside of the slide arm are two 3/8" bolts that actually fasten the slide box itself to the slide arms. As you can see, there is about an inch of the bolt that sticks out past the retaining nut. Perfect to hook the spring on and plenty strong for the 160 lb springs.



On the other end of the arm by the frame is a welded 1/4" steel bracket. Nowhere to attach the spring but plenty of room to drill a 1/2" hole for a 2" x1/2" bolt.

I put a chain link on each end of the spring and hooked it over the outside bolt. I then put a washer that was larger than the chain link then tightened a 3/8 nut. An additional nut was tightened as a lock nut.



I did the stretch to the inside bolt because there isn't enough room to work at the front. Fortunately, there is room behind the slide to work on your knees. With the slide pulled in about a foot, I only had to stretch the spring about a foot.

Unfortunately, my hand has not yet fully recovered from surgery and I just could not stretch it all the way. My solution was to use a ratchet strap to stretch the spring. Once it was pulled out enough, I was easily able to pull it up, hook the chain link on the bolt, and release the ratchet strap.

Then it was just big washers and double nuts.

DONE! Time for a comparison test. Watch both videos and note the difference in the first few seconds as the slide climbs the hill.

To watch the original configuration click https://youtube.com/shorts/MvuAFu1UDzs?feature=share

To watch the modified configuration with upgraded controller, heavier wire, and two 160 lb garage door helper springs click https://youtu.be/ASO_86P2H_k

The slide still extends easily. Occasionally, there is a ‘SPROING’ sound as the spring stretches. My garage door does the same thing. I suspect that the springs alone would make the most difference and is certainly more straightforward, easier, and cheaper. I'm certainly not going back to the original

controller but if I had it to do over, I'd do the springs first. It is an easier and simpler enhancement and requires no electronics knowledge. I expect, for most folks, the springs alone will provide the relief from concern the slide is not going to come in.

This was a relatively straightforward project. Drilling the 1/2" holes was probably the most difficult subtask. Total cost was about 60 bucks. The springs are available from big box stores or most hardware stores. I ordered 160 lb springs. I noticed later they have 180 lb but the 160s do fine. I ordered mine from Amazon Prime 41 bucks for the pair delivered:

https://smile.amazon.com/gp/product/B07PR8F8GP/ref=ppx_yo_dt_b_asin_title_o01_s00?ie=UTF8&th=1

The rest of the cost was the chain links, bolts and nuts. I had the bolts and nuts on hand but if you had to buy everything, I expect would be about 20 bucks more than the springs.

This does require getting under the coach. My airbags are deflated and the jacks are only extended an inch or two. In the very unlikely event a hydraulic line or jack would fail, the coach would only drop an inch or two and I'm comfortable with that. If you decide to get under your coach, use your brain and judgment.

This is what I did and how I did it. I can't say that anyone else will have the same results but I expect they will.