

Tie Down Anchor Plates

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Original Thread, started in 2009: <https://www.volvoforums.org.uk/showthread.php?t=78207>

#1

I bought a '67 220 a few months ago and I'm constantly picking up big and heavy things with it. Recently I picked up some used tools from Craigslist such as a 9" metal lathe, a cabinet table saw, a full tank of Argon, and a horizontal metal bandsaw. The only real place to get a tie down securely on was the bracket for the back seat when it's folded down. This works okay but really isn't ideal and can be outright dangerous if having to panic stop on the highway. So a while back I installed some tie down anchor plates in the back by the tailgate. I got some really sweet cast stainless Sea Dog eye plates from Svendsen's Marine locally for about \$12 each. They've been a real life saver when bringing those heavy tools home on the highway. Here's some pics of how I installed them. Enjoy.

Here's the initial alignment and layout work:



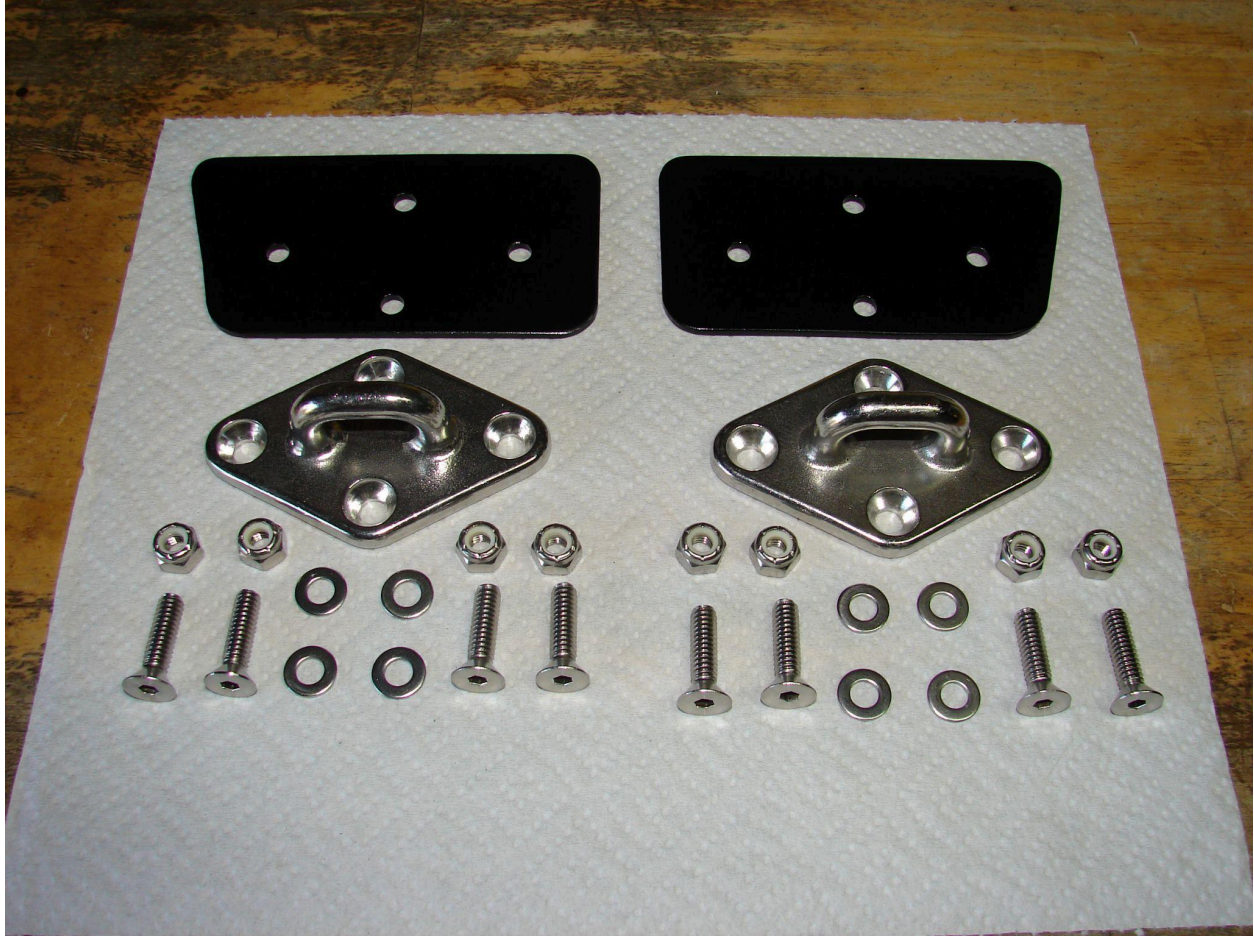
Holes drilled and cleaned up:



Backing plates fabbed from 3/16" steel:



Group shot, all the hardware is stainless. I actually mirror polished the flat head bolts using my drill press and some fine sandpaper. The backing plates were painted with some black appliance epoxy paint:



This one shows how the backing plate fits nicely in between the braces and contours of the body work:



Finished install:



I also picked up some like these that I might install up front eventually. However, I don't really like drilling a lot of holes in my cars though so I might just continue to use the seat brackets instead. I haven't decided on that one yet.

#10

Thanks guys. Anytime cutting and/or drilling is involved on one of my vehicles I take my sweet time and make sure to do it right. This simple install took almost two days to complete but I'm happy with how it turned out. Not a project I'd like to do again anytime soon though.

I agree that a threaded back plate would be the most convenient with something like this. However in this application I wouldn't really trust it completely with heavy loads considering how thin the steel plate is. Not to mention that the threaded holes would have to be almost perfectly aligned with those in the anchor plate. That's why I just went with nyloc nuts instead. Plus they are more secure long term for high vibration stuff like vehicles IMO. The other alternative I was considering was to TIG weld some nuts to the steel plate but decided not to due to possible rust

issues down the road. The picture makes it look a lot harder to get to than it actually was. The only hard to start one was the furthest one back. I used a 10" pair of locking hemostats to hold that washer and then the nut while I threaded the bolt in from the other side. It was relatively easy actually and the other three were directly accessible with fingers.

I strongly prefer to go stainless as much as possible in my vehicles due to the innumerable rust welded bolts I've had to mess with throughout my life. One of the nice things about stainless is that you can polish it without worrying about it being temporary like chrome plating that eventually chips off due to wrench damage. I usually polish the heads of my SS bolts on my drill press. I just clamp the bolt in the chuck and press it down while spinning into a piece of sandpaper stapled to a block of wood. Works like a charm:



I roll with my bicycle a lot so it would be nice to get a load bay cover eventually. Considering how narrow these cars are though it might have to be a custom thing. I'd even be fine with a simple non-rolling one which would be pretty easy to make with some nice bungee cords. Let me know if you guys find a roll-up one that could work.

#12

Been meaning to re-update this after the forum crash. I installed the middle tie down plates about two months ago to help me move all my tools into a new house across town. I must have made 25 or so 30 mile round trips back and forth and I had stuff tied down for the majority of them. Bottom line, these plates are the single most useful mod I've done yet to my wagon.

The body work is curved where I wanted to install it so I used a more compact tie down plate than in the back. I also wanted it to be right up against the back seat but there is a tunnel brace inside the body that's right in the way and would block access to one of the nuts so I mounted it rearward a bit. With the back seat folded down these two plates are centrally located in the back cargo area.



This shows the brace inside that is in the way. I didn't make a back plate because I was in a hurry so I used some thick SS fender washers instead. They were #10 washers that I drilled out in the lathe to be 1/4" for a nice tight fit on the 1/4-20 bolts. It's kind of hard to tell from this angle

but the front-most nut is about 1/8" away from the lip of the brace and the washer is about 1/8" away from the bottom of the red backseat locking bracket backing plate.



Now that I have two plates in the rear and two in the middle I'm thinking about installing a final pair on the vertical column between the doors right where the front seat belt hangs down. I would have to use rivnuts directly in the sheet metal though so it would be a bit tedious to get the accuracy required in laying out and drilling the holes, but the plates would be in the perfect position though so it would be worth it IMO. I've just been using the front seat belt hoop so I might not even worry about it.