

Jennifer Hodgdon's Seat Back Bag for HP Velotechnik BodyLink Seat

I could not locate a fully satisfactory seat-back bag for the BodyLink seat on my HP Velotechnik Grasshopper FX, so I designed and made one myself. This document explains the design... feel free to use it in any way you wish. Note that I made this pattern for myself, so the instructions and pattern are probably only usable by people who are reasonably experienced with sewing, and/or people who have designed and made their own projects in the past. Probably not for beginners, sorry!

Overview

Here is what the bag looks like on the bike (sorry, rather cluttered photo), and a side view off the bike:



The back of the bag (the side against the seat) is at an angle so it hugs the seat, so the bag is wider at the bottom than the top, the bottom of the bag is more or less horizontal, and the front of the bag is more or less vertical.

Attachment System

The bag attaches to the seat with strips of double-sided Velcro. I also added some patches of stick-on, industrial-strength Velcro to the seat face, to supplement the patches that were already there that hold the seat pad to the seat. The seat pad now sticks to the bag's Velcro strips in places, and the original stick-on Velcro pads in places. There are three Velcro strips on each side of the bag (exact placement is not essential), and three more across the back of the bag. I have an Airflow seat cushion, which has a fabric flap at the top to hold it on the seat. So, the three Velcro strips across the back of the bag are a few inches down from the top, so that they come off the seat-back bag below the seat cushion flap, and then they go up the back of the seat and down the front of the seat, under the flap and seat cushion.

Here's what the back of the bag looks like:



Materials

I used the following materials to make the bag:

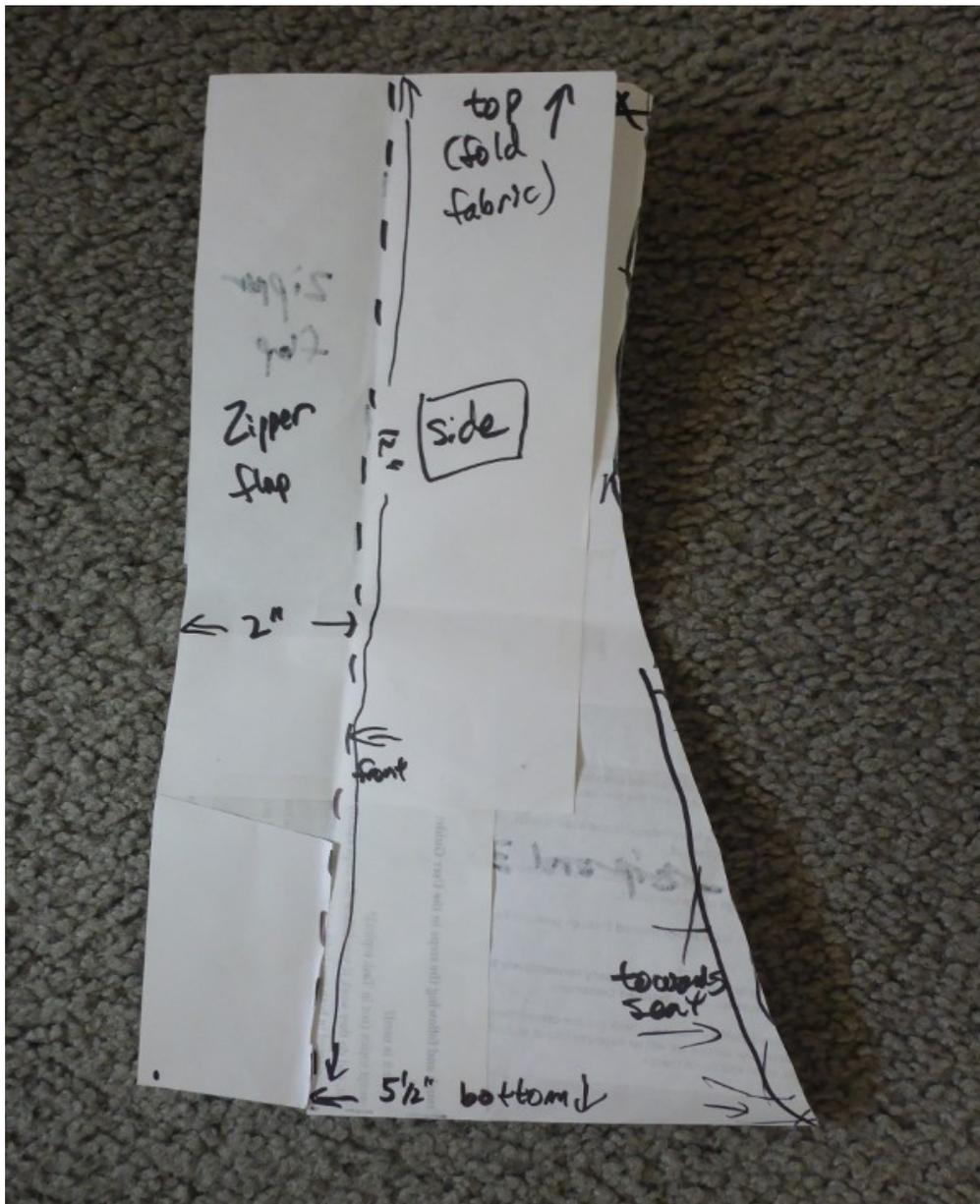
- Mid-weight pack cloth for the top section. Bright yellow would have been better, but the tan fabric is what I had on hand.
- Heavy-weight pack cloth for the bottom section, which you want to be fairly rigid so the bag holds its shape. You could possibly also make the whole bag out of heavy-weight fabric if you wanted to, but I'm not sure the zipper flap would work well that way. Again, bright yellow would be good, but black is what I had on hand.
- Double-sided Velcro strips, for attaching the bag to the bike. You'll want to sew on the ones in the center top of the back before assembling the bag, and I recommend reinforcing the inside of the bag with heavy-weight pack cloth under where they attach, and above that spot to the top of the bag, to improve rigidity. The three on each side get sewed into the side seams.
- 18" Double-pull "purse" zipper (opens in the middle both directions, closed on both ends).
- Various nylon webbing strips, sewed to the bag before assembling, for attaching things to the outside. The strip on the top front is for a rear flasher light, and there is also a strip on the side for attaching a camera case (it's a small point-and-shoot camera; the camera case has a belt loop, so you can run a strong twist-tie or Velcro strip through the webbing on the bag and the belt loop to secure it). Again, I reinforced on the inside of the bag where I attached this, for improved rigidity (so the things you attach don't flop around).
- An Adventure Cycling reflective triangle. <https://www.adventurecycling.org/cyclosource-store/equipment/lights-reflective/sp/jogalite-cyclists-safety-triangle/> I cut the straps short and sewed it to the bag before assembling. If I had used bright yellow fabric for the bag, I might have used some reflective strips instead of the full triangle.
- A TerraCycle water bottle holder. They had sent us one with straps that were too short for large tubes found on a recumbent bike, so I didn't feel too bad about cutting the straps down and attaching it to the bag (again, sew it on before assembling the bag). See http://t-cycle.com/fastback-hydration-packs-c-6/water-bottle-holders-c-6_35/ – seems to be out of stock currently. I attached it at a slight angle, angled towards where my hand would be able to grab the bottle.
- I also made a small pocket out of the mid-weight pack cloth for my garage door opener, and attached that to the side before assembling the bag. It closes with a Velcro flap, and is loose on the bottom so that I can grasp the opener and press the button without stopping or taking it out of the pocket.

Pattern and Sewing Hints

I made my own pattern out of paper, by tracing the angle of the seat. Unfortunately, all the pieces were too large to fit on my scanner, so the best I could do here was take pictures of the pattern pieces, and provide measurements.

IMPORTANT NOTE: All of these pattern pieces represent the finished size of the bag. Add about 1/2" to 3/4" all around all sides of each piece for seam allowance. I recommend, after making your own pattern pieces on paper, tracing around them with chalk on the wrong side of the fabric, and then just cutting the fabric about 3/4" outside of that tracing. Then you'll also have a guide for where the seams should be.

Side Piece



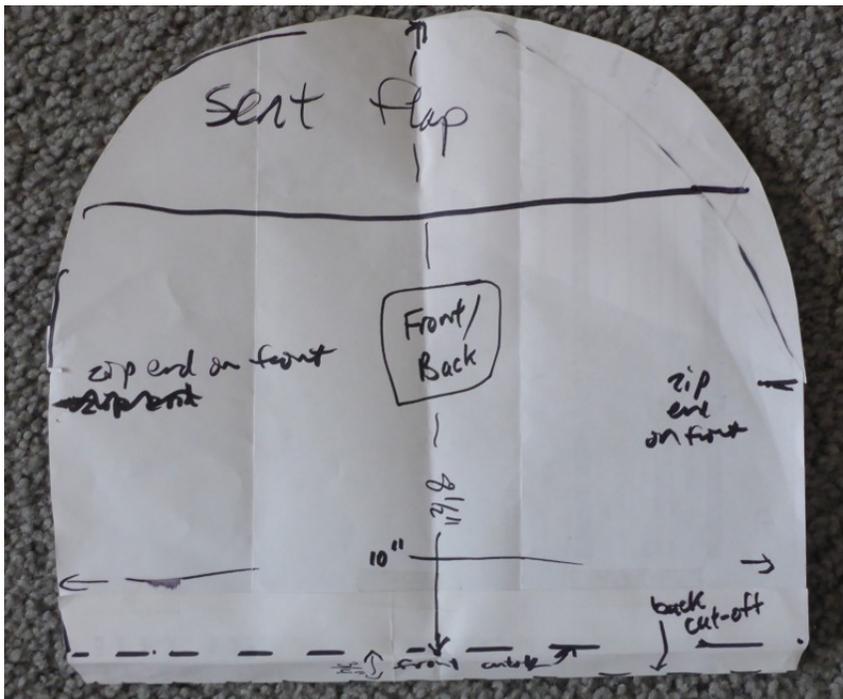
Note: This pattern piece is for half of the side of the bag. Fold the fabric at the top, and cut one piece that goes up from the bottom, through the fold at the top, and down the other side.

The side piece is about 5 1/2" wide at the bottom, and 2 3/4" wide at the top, with an additional 2" for the zipper flap. It is about 12" long (doubled to 24"). Cut it out of the light-weight fabric.

After cutting this out, fold the wrong sides of the zipper flap together, and make a seam so that you have a 1" flap the whole length of the piece, with the seam allowance still sticking out under the flap. Also, attach your water bottle holder, webbing strips (I recommend reinforcing behind them with the heavy-weight fabric for rigidity), and/or garage door opener pocket to the sides if desired.

Next, using the seam allowance under the zipper flap, fold the wrong sides of that together to make a clean edge, and sew it to one side of the zipper. Make sure the zipper is centered at the top of the side piece. It will not go the entire length of the zipper flap.

Back/Front Pieces



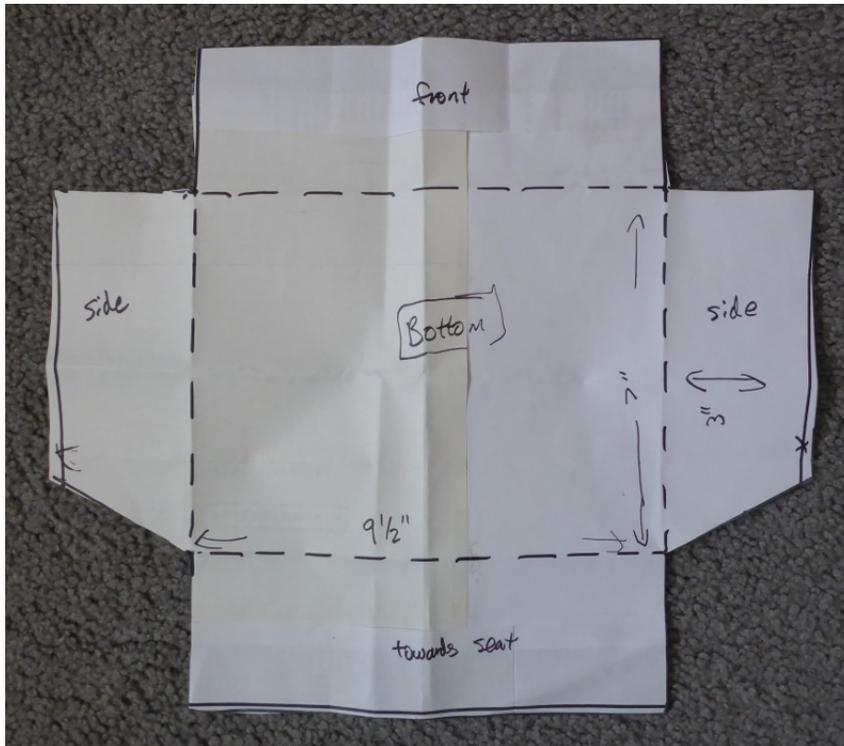
Cut one piece 8 1/2" tall for the front of the bag, and one piece 9 1/4" tall for the back of the bag, out of the light-weight fabric, both about 10" wide at the bottom. You can also get the shape by tracing the back of your seat.

After cutting these out, sew reflector and/or webbing strips as desired onto the front piece (with reinforcement behind the webbing), and sew Velcro strips onto the back piece, in a line below where the seat pad flap reaches (with reinforcement, at and above the line of Velcro).

Next, fold the seam allowance on the front piece back (wrong sides together) to make a clean edge, and sew it to the other side of the zipper, making sure the zipper is centered at the top center of the front piece. Then sew the rest of the seam between the side piece and the front piece, so that the flap makes a good seal across the end of the zipper.

Finally, sew the other edge of the side piece to the back piece, making sure to **insert the double-sided Velcro straps on each side in the seam**. After sewing, open up the zipper – you'll need it open to finish sewing the bag – and turn the bag top inside-out.

Bottom Piece



Cut one of these out of the heavy-weight fabric.

After cutting it out, sew each of the corners together, so it forms kind of an open-top box, by putting the right sides together and sewing up the approximately 3" of the flaps.

Turn the bag bottom right-side out, and the bag top inside-out. With the right sides together, and making sure the front/back correspond correctly (slanted side is the back, which goes towards the seat), sew the bottom box to the top bag.

Then turn the bag right-side out (through the zipper hole) and it should be done!