

knittsings

Deep Clean A Passap Duomatic

Deep Cleaning a Passap is a three step process: Tear down, Clean, and Reassemble.

I won't mislead you. Your nerves will be on edge while you take apart your precious knitting machine. Don't be scared from trying. Take your time, be methodical, and check out as many references as you can before starting. Besides this picture tutorial, I highly recommend *Be Your Own Passap Paramedic* by Michael Becker.

If you don't think you have it in you to reassemble, don't take your machine apart.

All right, let's get started.

First Things First



Before removing a single needle from my knitting machine, I make sure I have all the tools I'll need to complete the project.

- My husband
- 6 mm nut driver for Pinkie
- 6 mm socket and 6" extension (5.5 mm nut driver for Duo 80)
- Magnetic pick up tool
- A large bath towel
- Dental pick or the red Passap tool
- Bowls to collect small pieces
- Tags for keeping track of pieces
- Grease pencil

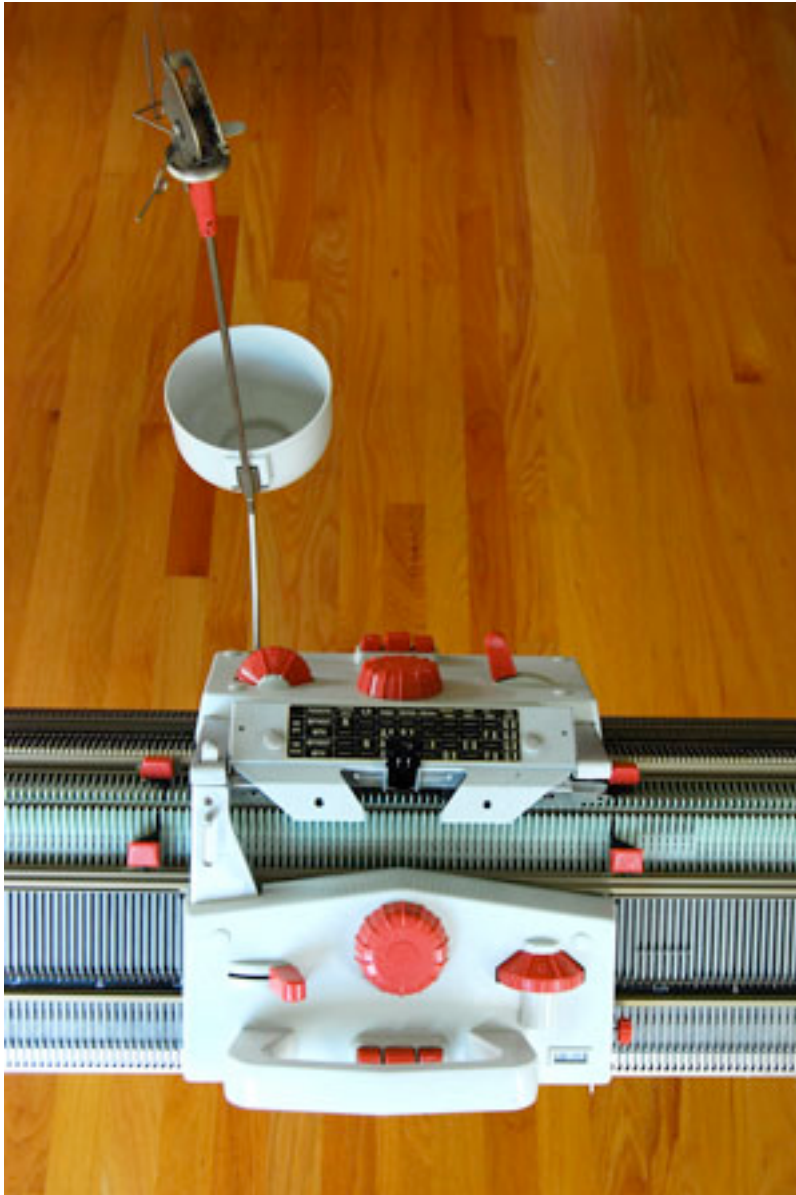


- Denatured alcohol
- Ball Syringe
- Liquid dishwashing soap - Dawn
- Degreasers - 409, Simple Green
- Toothbrush
- Tweezers
- Hair dryer



- Wide Mouth Glass jars with lids
- Disposable bristle brush
- Large stainless steel pan such as a cake pan
- Lint free cloths for reapplying oil lubricant. I like gun barrel cloths - cheap and lint free
- Oil - I use plastic friendly oils such as Ballistol and Hoppe's Elite gun oil

Tear Down



Face your machine

Remove the yarn tension mask and cup holder

Slide down the bolt connecting the front and back lock

Slide off the front lock and set aside for cleaning.

Slide off the back lock and set aside for cleaning.

Slide off the four edge springs and set aside for cleaning.

If your machine has an automatic color changer, you will need to remove it now before continuing.



Rack your machine so that the triangles after the words “Transport” and “Position” are pointing at each other. This will line up the nuts with the holes on the underside of the metal chassis.



Grasp the racking handle ...



... and pull it out



Loosen both C-clamps on the underside of the stand and remove them.



Carefully take the knitting machine off the stand and set it on a padded surface, either on the floor or a nearby table.



Roll up a large bath towel and place it behind the machine to support it when it is tipped back. You don't want to rock the machine on its plastic parts.



With the front of the machine face down on your padded work surface, loosen all the upper rail nuts.



You will need to remove the end stand plates to gain access to the bolts behind them.



When all the nuts are loosened, turn the machine upright. With the red/orange tool, push the end of the needle retaining bar far enough...



... so you can easily pull it out from the opposite side.



I like to label it before setting it aside for cleaning.



Next, gently pull the Front Bed Upper Rail off the machine from the side. If it doesn't want to slide, you may need to turn the machine over and loosen the nuts a bit more.



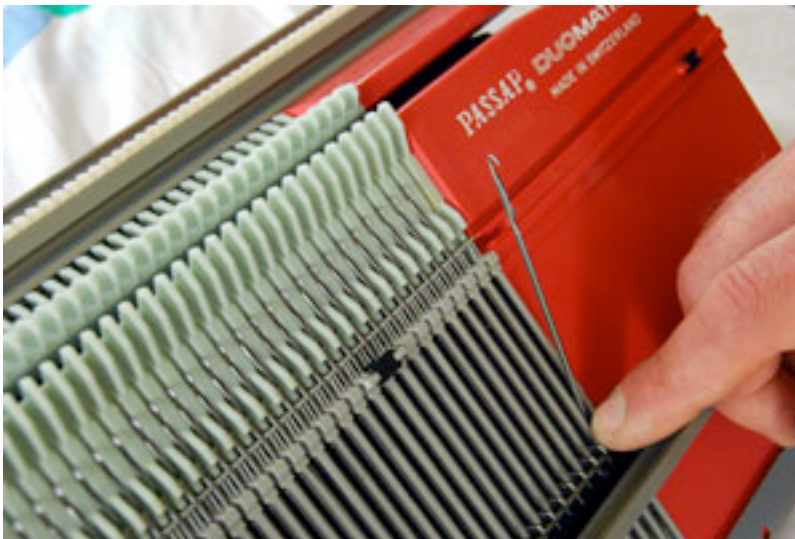
Label the rail and set aside for cleaning.



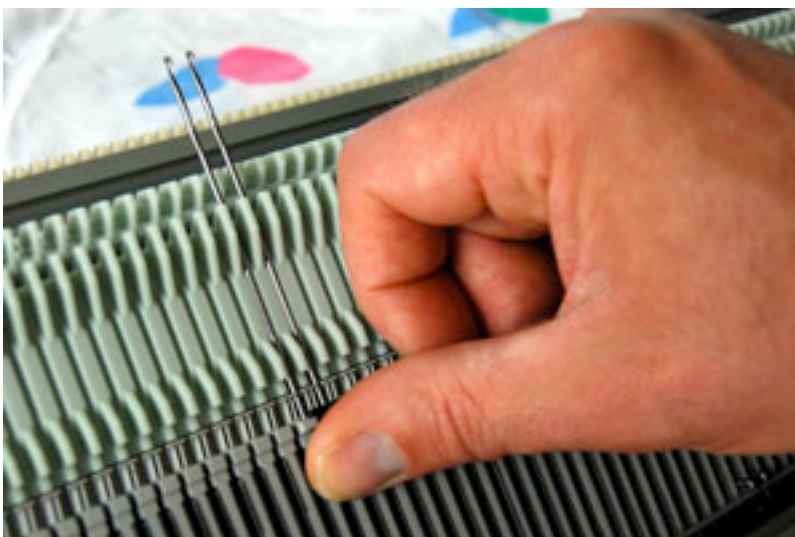
Using the red/orange tool, lift the brake spring out.



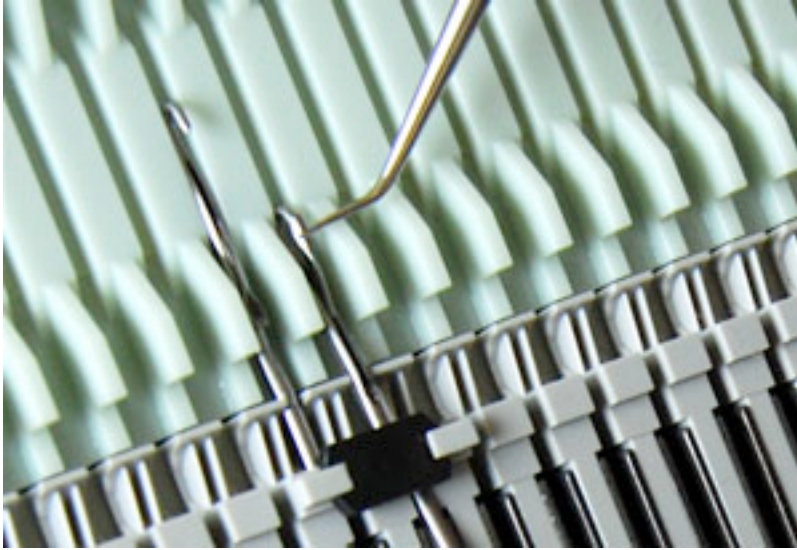
Label it and set aside for cleaning



For all needles except the two behind each H clip (pictured in the lower center as a sideways black H), push down on the butt end of the needle and pull out.



Push up the two needles around each H clip and close the latch hooks of each.

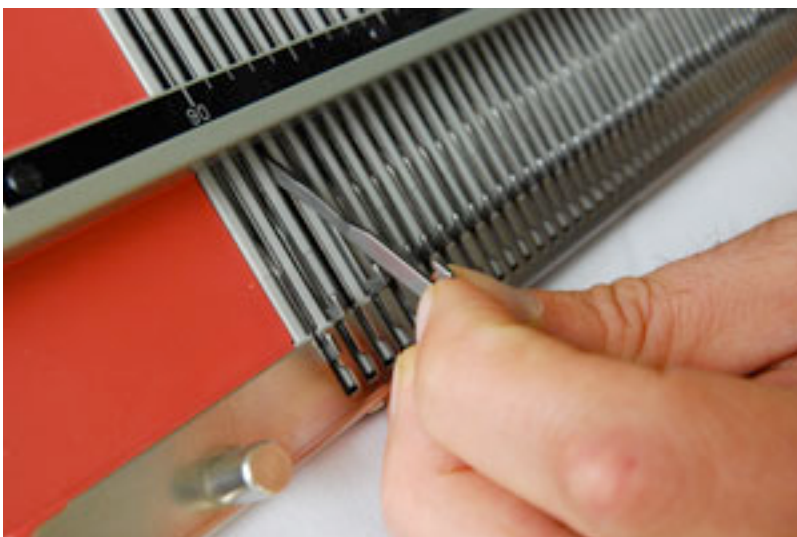


You may need the red/orange tool to hold the latch close while you pull the needle down and out from under the H clip. If you leave the latch open, you run the risk of permanently damaging the needle.



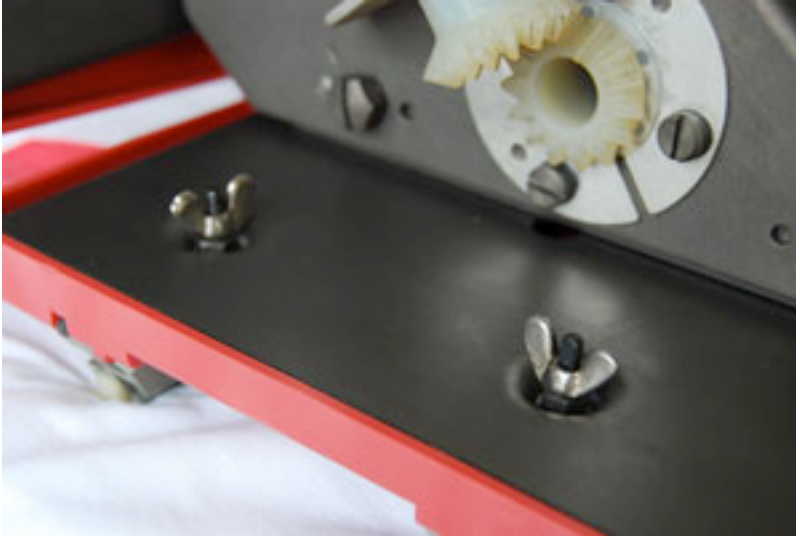
Place all the needles with their butt ends down in glass jars with tight fitting lids. I used canning jars. You will be filling these with denatured alcohol.

Although it doesn't really matter, I labeled the jars "F" and "B" for front and back bed. I was extra cautious to keep track of which part came from which bed.



Wedge open the Pusher Retainer Bar with an end pusher. Remove all pushers and place in a jar for cleaning. You may find it easier to slide the pushers up the needle channel a bit before pulling each one towards you and out of the channel.

DO NOT use the pusher retainer bar as a fulcrum point to pry out pushers.



Lay the machine back down with the front bed facing the padded work surface. Remove the wing nuts, bolts, and any washers.



Using the nut driver or socket/extension, remove the nuts and washers from the upper and lower rails.



Using the red/orange tool, lift out the nut and its washer. Be careful, the washers frequently slip off the tool and roll on the floor.



If you have a magnetic pick up tool, you will have less frustration with this step. The nut and washer will be glued to it. This tool is especially valuable when removing the nuts and washers towards the top of the machine where there is less room to work. My tool was covered in blue tape so it would show up better in the photos.



There will be 12 pairs of nuts and washers for the front rail and 12 pairs for the back. Set them aside in a bowl for safe keeping.

One of my beds only had 11 pairs of nut and washers for each rail. I don't know if that is normal, or if mine was missing a set.



Tip the machine back to an upright position, being careful not to put too much pressure on the plastic Striker Plates. The bolts and needle rulers, and sometimes the lower rail, will drop out of the machine in two neat rows.



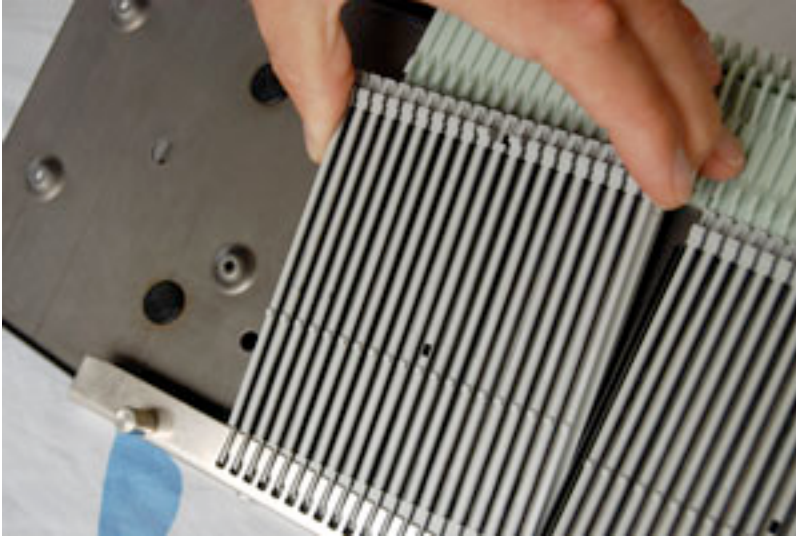
My machine had 11 square head bolts and 13 round head bolts. One of each was longer than its siblings. Set them aside in a bowl for safe keeping.



If it didn't fall off when you tipped the machine upright, remove the Front Bed Lower Rail. Sometimes old oil will have glued it in place. Tag and set aside for cleaning.



Gently pull off the end plastic plates from both sides. I used a grease pencil on the inside of each to label them "Left Front" and "Right Front". I wasn't taking chances on it mattering.



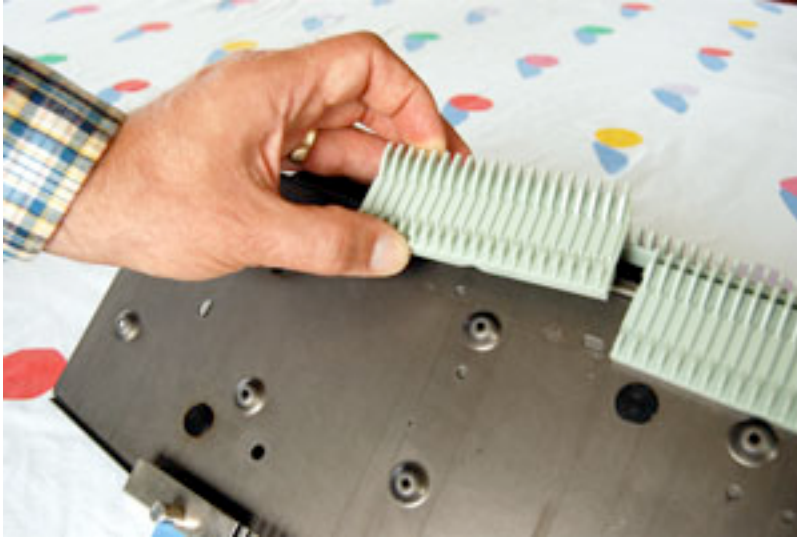
Grasp the needle channel plates by the top and pull them out.



There will be a needle channel in between each plastic plate. Make sure you gather these up as well as any metal shims.



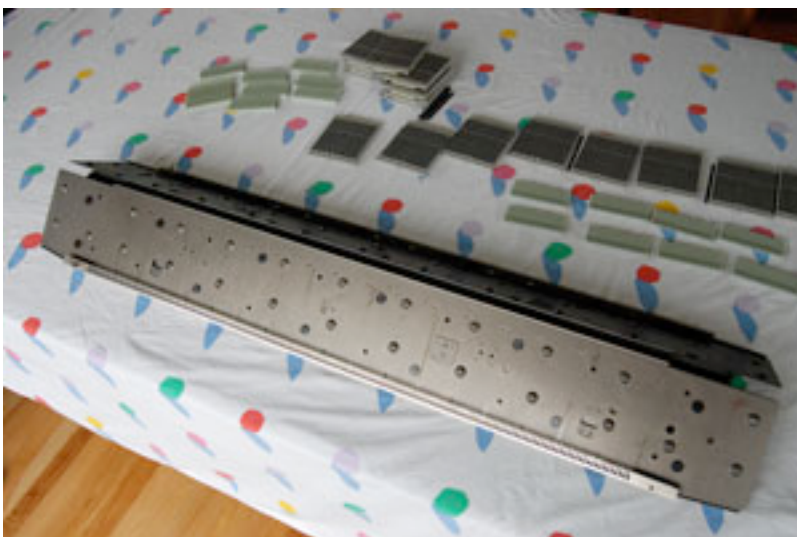
Set the plates behind the machine for now.



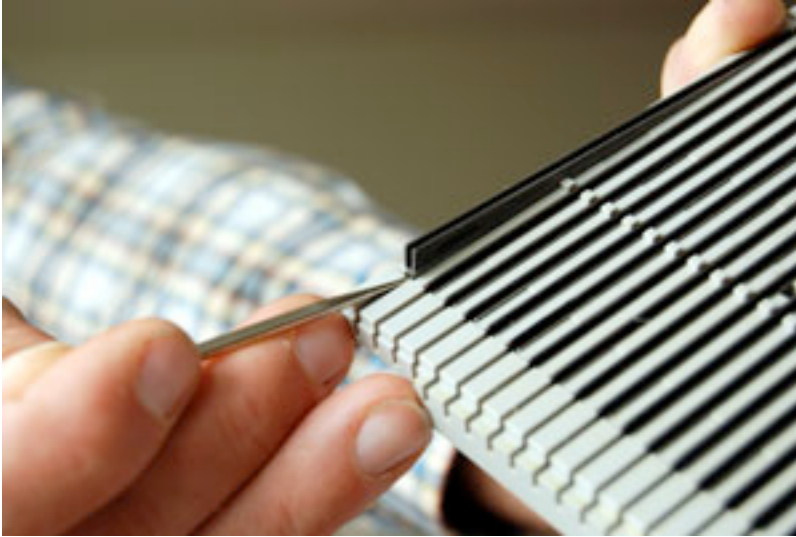
Gently remove the plastic striker combs. You may have to wiggle and/or push them back slightly to release them.



Continue across the machine removing all the combs.



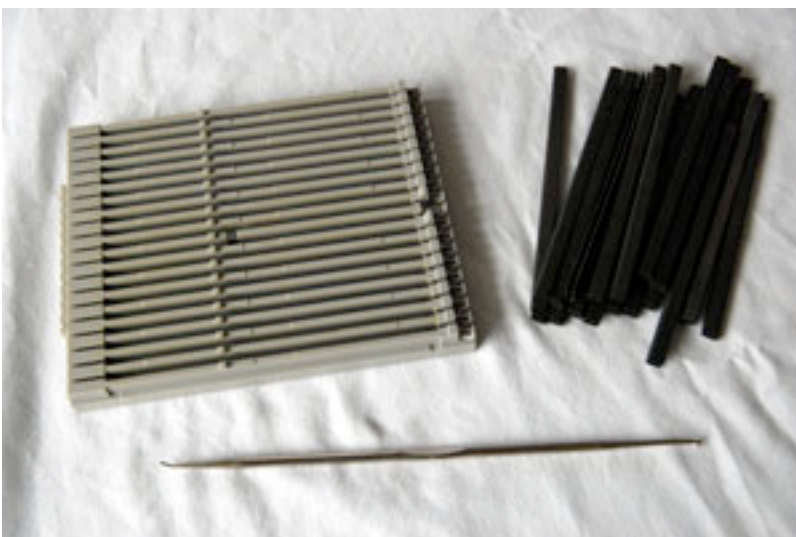
Set them aside for later cleaning.



Using a pick tool, pry up the metal needle channels from the bottom.



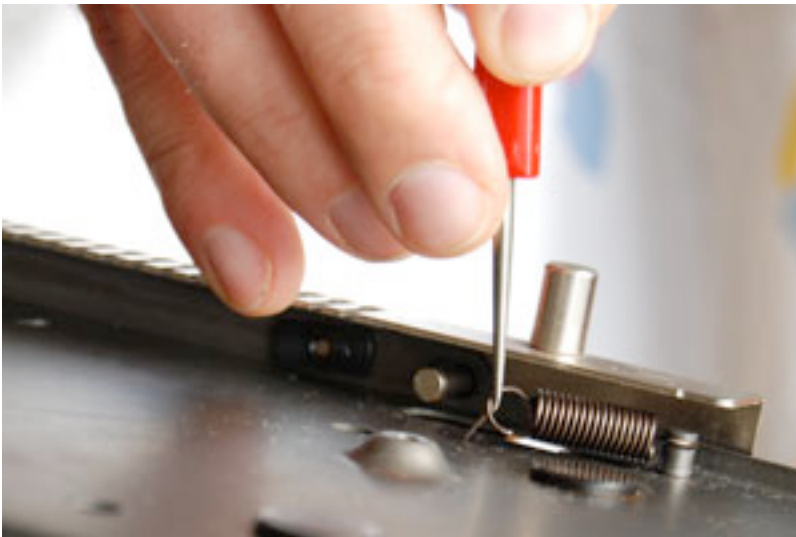
It will go faster if you pry them all up first before removing any of them. Some of the channels can be stubborn to lift out. You might want to use a tool other than your hard-to-replace Passap pick.



When all are lifted, remove the metal channels from the plastic plates and set the channels in a glass jar to be cleaned with denatured alcohol. Set the plastic plates to the side to be cleaned with a mild degreaser.



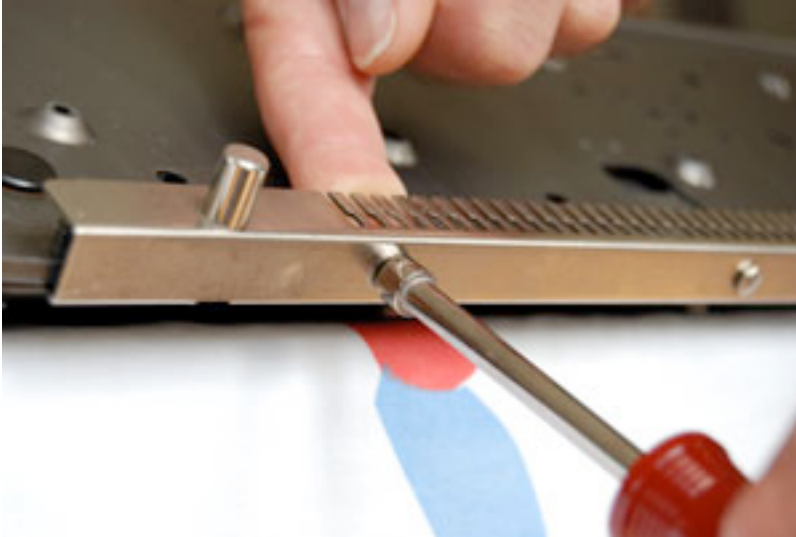
Using the pick tool, wiggle the tip of the pick under the part of the spring that is attached to the bolt of the pusher retainer bar.



Lift the spring off the bolt and set it aside for safe keeping.



With the nut driver, remove the nut on the underside of the pusher retainer bar at the same end as the spring.



You may need to stick your finger in to hold the rectangular nut so the nut driver can do its job.



Remove the hex head machine screw with your hand.



Use the magnet to lift out the rectangular nut.

Now repeat the steps in this section to tear down the back bed so it can be cleaned.

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Please enjoy this picture tutorial and feel free to pass it on to others. However, you may not sell it or reproduce it in any form for profit.

It is my hope that this tutorial, combined with other reference materials, will motivate you to rescue your cranky knitting machine. I want everyone's Passap humming as smoothly as possible.

Thanks and enjoy,

Kathryn