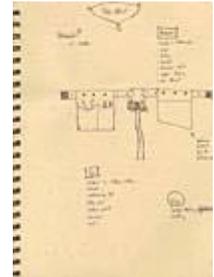




For Whom The Belt Tools

Create your own slim-fitting, hip-flattering tool belt to spice up your New Years outfit.



Materials:

- Suede or Ultra Suede - about 1 meter or yard. Please note that ultra suede is about four times more expensive (but in second hand clothing stores you can usually buy jackets made from Ultra Suede and then cut them up.)
- Hammer rivets in various sizes - they are sold in sets - a post and cap that fit together to form one finished rivet. They must be chosen to fit the thickness of the material that is to be bound together, plus the diameter of the rivet cap will have an impact on the finished look. Mag uses hammer rivets that are 3/16-inch diameter on the top. Ask for help in finding the correct length of the post.
- Nine to twelve snaps for the belt with a 1/2 inch diameter cap. You may want a few more to practice with.
- Setting punch for the snaps
- Two-inch wide heavy woven nylon belt, long enough to go around your waist plus about eight inches.
- Buckle to fit the belt
- Hammer hook - 12 to 14 inches of 1/4-inch copper tubing - to make the hook
- Heavy duty leather 4 1/2 inches wide and 5 1/2 inches long
- Hammer rivets with 1/4 inch diameter heads to fit a thickness of about 1/8-inch

Tools

- Thick plastic ruler
- Rotary cutter
- Cutting mat or smooth plywood cutting surface
- Leather punch - Cheap ones are about \$20 - prices jump radically for a higher quality leather punch, but a good tool is always a pleasure to use
- Baby or mini-anvil
- Rivet setting tool
- Sewing awl
- Hammer - one with the head covered in leather works best because it won't mar the surface of the rivet
- Soldering iron or wood burning iron with a small pointed tip
- Tongue-and-groove pliers
- Drill and drill bit the size of the post portion of the snap or rivet (only necessary if you make a boo boo)

Cut List:

- One piece 19 inches long by 9 inches wide
- One piece 9 inches by 11
- One piece 7 inches by 11

Note: The suede, tools, hammer rivets and snaps can all be found in a shoe leather and findings supply house.

Steps:



Use a thick ruler and a rotary cutter to cut out the pieces



Fold the biggest piece one half inch out of square



Trim off the excess half an inch on both sides

Cut the pieces out of the chosen material. Fold the 19 inch piece at 8 ½ inches. Skew the fold ½ inch. When riveted together the front will be slightly shorter than the back, so all the screws or nails in your pouch will gather in one corner.

Using the rotary cutter and straight edge, trim the ½ inch pieces off the sides giving the appearance of a squared pouch that slopes slightly along the bottom edge.



Use a leather punch to make a hole for the hammer rivet



Small hammer rivet - post and cap

Use the leather punch to make a hole through both layers in the bottom corner of the pouch. The hole should be 3/8 inch up from the bottom and 3/8 inch in from the sides. Be sure it is the appropriate size for the post of the chosen rivets. You may have to pick the tiny suede circle out of the new hole with a fingernail.





A baby anvil



Push the post through the hole and place it on the baby anvil

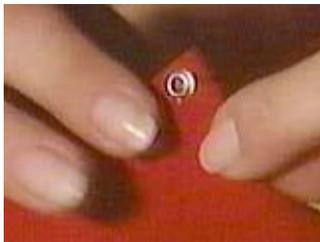


Concave end of hammer rivet setting tool



Place the concave end over the rivet and set it with the hammer

Insert the post from the back through the two layers of suede material. Position it on the mini-anvil and place a cap on the post. Locate the convex end of the rivet setting tool over the cap, and strike it with the hammer. To deliver force without crushing the rivet cap, try covering your hammer head with a scrap of suede.



Back of finished rivet



Front of finished rivet



Fold the top piece at the bottom corner and rivet in place

Continue installing rivets along the same line approximately every half-inch up both sides of the pouch. Stop one inch from the top. Fold the top edge of the pouch inward and install rivets every inch along the top hem.

To make the other pocket, lay the smallest remaining piece over the larger one. It will be wider than the bottom piece. Make a ½ inch fold in the top piece at the two bottom corners and rivet them in place.

Finish the bottom, edges and top to match the first pouch.





Sewing Awl



Pull the thread off the spool from inside the sewing awl



Pull out enough thread to make the seam plus some extra



Push the sewing awl through the leather

Sewing a seam up the center tightens the pouch and creates two pockets.

Use a sewing awl, which contains a bobbin and heavy waxed thread. Pull enough thread out to cover the length of the seam plus about 25% more. Locate the position for the seam on the front and back of the pouch. Push the point of the awl through the leather.



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Pull the thread all the way through and then pull the awl back



Move up the center line about 3/16 inch and push the awl through again



Pull the awl back enough to make a loop and pass the end of the thread through the loop



Put some tension on the thread and pull the awl out, tightening the thread

Once through, pull the thread all the way through the leather so that it is on the back.

Pull the awl back out of the hole, which leaves the thread passing through the leather at one point. Push the awl back through the leather about 3/16ths of an inch along the line of the seam. Pull the awl back a little and pass the loose end of the thread back through the loop. Put some tension on the loose end of thread and pull the awl back through the leather making the first stitch. Repeat until the seam has been completed.



Female snap parts and setting tool



Male and female snaps after setting

The next step is to install the snaps every 3" along the belt, as well as along the tops of the pouches. This should allow three snaps for each pouch.

Snap components take a little getting used to. It's easier to grasp if you take a hard look at the snaps on one of your jackets. There is a "male" snap component, and a 'female'. Each snap is composed of two pieces. On your tool belt, the female components are affixed to the pouch, while the male components should be attached to the belt.



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Mark the belt every three inches



Use the hot iron to melt holes in the belt material



Push the post of the male snap through the hole from the back



Put the cap on the post

Wrap the belt around your waist and make a mark at the position where the buckles will go.

Then, starting inside the buckles, mark the belt for snaps every 3". Don't mark for snaps beyond the point where the buckles will be attached, or you won't be able to tighten the belt to fit your waist. Use a hot soldering iron or wood burning iron with a pointed tip to melt a hole in the belt at the 3" marks. Melting a hole in the nylon cauterizes the fibers and prevents it from unraveling.



Place the pieces on the baby anvil



Set the snap with the setting tool and a hammer



Setting the female snap on the leather

Insert the snap post through the hole **from the back**. Place the male end of the snap over the post on the front side. Place the pieces on the baby anvil. Place the concave end of the setting punch over the post and give it several sharp blows with the hammer. This causes the post to roll down over the snap rim, locking it permanently in place.

Slide the non-adjustable end of the buckle over the end of the belt at the end where you started measuring. Fold the end of the belt back on itself to the inside, melt three holes and attach the two pieces together using three hammer rivets with 1/4-inch heads (a little bigger than the ones used to seam and hem the pouches.)



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Attach the adjustable buckle

The adjustable end of the buckle should now be attached to the end of the belt leaving 1 ½ to 2 inches from the buckle to the first snap.

Make a ¾-inch fold in the top of each pouch. Make a mark at the center about 3/8-inch from the folded edge. Use the leather punch to make a hole the size of the snap post. Insert the post through **from the front** of the pouch and slip the female end over that, on the back side of the pouch.

Place the pieces on the baby anvil. Place the concave end of the setting punch over the post and give it several sharp blows with the hammer. As it did with the male side of the snap, this causes the snap post to roll down over the snap rim, locking it securely in place.



Removing an incorrect snap with pliers and drill

If you have any kind of foul-up, as I did, a snap can be removed by holding the post side with tongue-in-groove pliers, while drilling out the post from the other side.

Sometimes the post hasn't been set properly and sticks up just enough to prevent the two parts from snapping together. In that case just use the setting tool and baby anvil again and hit it a little harder with the hammer.





Leather for hammer loop



Bend the copper tubing into shape



Attach the hammer hook to the leather

Hammer Hook:

Bend the copper tubing in a curved right angle about 2 ½ inches from each end. Make both bends in the same plane so that the pipe will lie flat if placed on a table. Don't kink the pipe; make more of an arched "u" shape.

Next, place the u-shaped tubing on a table. Hold on to the ends and bend the pipe in the middle making an arched right-angle bend. The two cut ends of the tubing should be parallel to each other.

Use a hammer and flatten an inch of the metal at the cut ends of the tubing. In each of the flattened ends, drill two holes for the hammer rivets; one ¼-inch in from the end, and one ¾-inches in. Place the drilled tubing on the piece of heavy leather so that the right angle bends are near the bottom but still against the leather.

Center the hammer loop from side to side. Mark the hole positions on the leather and punch holes on each of the marks. Attach the copper tubing to the leather with - you guessed it - hammer rivets!





Mark the location of the belt onto the leather



Cut out the slots for the belt with a chisel



Pass the belt through the slots



Hammer hook and belt in action

Make two slots in the leather base for the belt to pass through. Use a sharp chisel and push it through the leather to make the slots. Thread the open end of the belt through the hammer hook's leather base. Thread the adjustable end of the buckle onto the belt and try it on for a fit. Adjust as necessary and trim the belt if need be.

Don't forget to burn the cut edges of the belt to prevent it from unraveling. Attach the pouches on the sides, drop a hammer in the hammer loop and parade around collecting compliments.

If this does not have the desired effect, strap your husband into a sturdy chair, put on *The Allman Brothers Live at the Fillmore East*, dim the lights and remove pouches, one snap at a time.



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