# EXPLORER WATER BOTTLE KIT



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#### **KIT CONTAINS:**

Pre-Cut Pre-Punched Leather D-Rings (2) Button Studs (2) Line Snaps (4) Medium Rivets (8) Large Rivet Needles (2) Thread Instructions & Pattern

#### **BEFORE YOU BEGIN, YOU WILL NEED:**

- Flathead Screwdriver
- Deluxe Rivet & Snap Setter
- 3/32 in. Round Drive Punch or Rotary Punch
- Mallet
- Knife
- Scratch Awl
- Straight Edge

#### **A** CAUTION

CUT HAZARD: Functional sharp points. CHOKING HAZARD: Small parts. Keep out of reach of children.

## PLEASE READ ALL INSTRUCTIONS BEFORE BEGINNING PROJECT.

**NOTE:** ALL STAINING, DYEING, CONDITIONING, AND TOOLING SHOULD BE DONE PRIOR TO ASSEMBLY.

## IN THIS KIT YOU WILL...

(TECHNIQUES USED )



#### TRANSFER PATTERNS

Use paper template to transfer pattern and mark punch holes onto leather.



## CUT LEATHER

Cut leather to specific size and/ or trim corners for decorations and embellishment.



## **PUNCH HOLES**

Punch holes into leather for hardware and other items before constructing project.



## SET HARDWARE

Set rivets, snaps, and/ or eyelets into leather before final assembly.



#### STITCH LEATHER

Use a variety of stitching techniques to secure leather together and finish project.

## CUSTOMIZE YOUR KIT BY ...

(OPTIONAL TECHNIQUES)



#### **TOOLING LEATHER**

Stamp and carve leather into unique designs and creations.



#### DYEING LEATHER

Get creative by dying, staining or painting projects to add a personal touch.



#### **BURNISHING EDGES**

Give your project a clean professional look by burnishing edges with gum traganath or other solution.

### WHAT'S INCLUDED?

Attachment Tab Strip (A) Pouch Back (B) Pouch Front (C) Vertical Strap with Punches (D) Vertical Strap with Slits (E) Horizontal Straps (F) Shoulder Strap (G) Keepers (H) Attachment Tab Template (I) Strap End Template (J) D-Rings (K) Button Studs (L) Line Snaps (M) Medium Rivets (N) Large Rivet (O)

#### Not Shown:

Instructions & Pattern

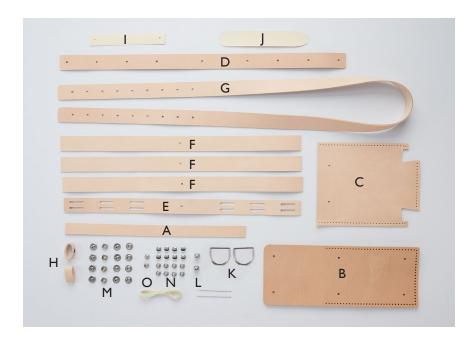
## **OPTIONAL TOOLS:**

Binder Clips or Preferred Adhesive to secure leather pieces. Stitching Horse to hold leather pieces while stitching. Scratch Awl to widen stitch holes. Emery Board to Sand Edges. Multi-size Wood Slicker to burnish edges. Gum Tragacanth to burnish edges. Cotton Swab to apply Gum Tragacanth. Loctite® Threadlocker to secure hardware.

## GLOSSARY:

FLESH SIDE: The underside of an animal's hide. On veg-tanned tooling leather, this is the rough side.

GRAIN SIDE: The hide's surface that had the hair of the animal. Typically used for carving and stamping.



## **OPTIONAL: BURNISHING EDGES**

I. Before assembling, burnish edges of each strap to desired finish. All other edges to be burnished once complete. **See Level Up Your Skills starting on page 12** *for detailed instructions on How to Burnish Edges.* 

## CUTTING TABS

- 2. Cut Tab Template (I) out from paper pattern.
- 3. Place Tab Template (I) over Strip (A).
- 4. Use Scratch Awl to mark the end and punch holes onto Strip (A). (Figure 1)
- 5. Move down the strip to mark a second Attachment Tab.

6. Use a Knife and a Straight Edge to cut along score lines. Then punch holes using Rotary Punch or a Round Drive Punch with a Mallet. (Figures 2-4) **Pro Tip: Round corners with Knife for a more finished look.** 

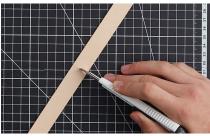
7. OPTIONAL: Burnish edges of Attachment Tabs (A) to desired finish.

## Figure 1





Figure 2





## SETTING HARDWARE

8. Set post & stud side of Line Snap (M) on the two bottom holes on Pouch Back (B). Stud on grain side of Pouch Back (B). (Figure 5) See Level Up Your Skills on page 15 for detailed instructions on How to Set Snaps.

9. Set cap & socket side of Line Snap (M) on both Tabs (A). Cap on grain side. (Figure 6)

10. Set cap & socket side of Line Snap (M) on the top two holes on Pouch Back (B). Cap on grain side. (Figure 7)

II. Set post & stud on Pouch Front (C). Stud on grain side. (Figure 8)

## Figure 5





Figure 7

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12. Snap Tabs (A) and Back Body (B) together. Align punch holes.

13. Set Medium Rivets (N) through the last two holes. (Figures 9-10) See Level Up Your Skills on page 14 for detailed instructions on How to Set Rivets.







#### STITCHING POUCH

14. Place Pouch Front (C) over Pouch Back (B), flesh sides together. Align stitch holes on the left side. There should be one stitch hole left empty at the top of stitch line.

15. Cut thread 5 times the length of stitch line. Thread both ends with needles. **See Level Up Your Skills starting on page 14 for detailed instructions on How to Thread a Needle.** 

16. Begin with an edge lock stitch, then saddle stitch down. (Figures 11) See Level Up Your Skills starting on page 13 for detailed instructions on How to Edge Lock Stitch and Saddle Stitch.

17. At bottom corner, saddle stitch off the edge onto the bottom stitch line. (Figure 12)

18.Fold bottom tab of Pouch (C) up so next stitch will go through Front & Back (B & C). Saddle stitch across. (Figure 13) **Pro Tip: Use binder clips to hold leather together.** 

## Figure 11



## Figure 12



Figure 13



19. Stitch between bottom/ right side of Front Body (C), then onto right side. Saddle stitch up. Finish with an edge lock stitch. Backstitch 2-3 stitches to secure. (Figure 14) **See** *Level Up Your Skills starting on page 12 for detailed instructions on How to Backstitch.* 

20. Fold flap over and snap together. (Figure 15)







## ASSEMBLING WATER BOTTLE

21. Place Vertical Strap with Punches (D) perpendicular under Vertical Strap with Slits (E), grain sides up. Align center punch hole.

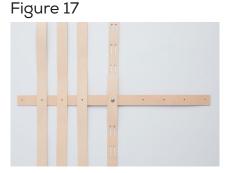
22. Place Medium Rivet Posts (N) through flesh side of the central hole. Cover with Rivet Cap (N). (Figure 16)

23. Set Rivet (N) with Deluxe Rivet & Snap Setter.

24. Align holes of Horizontal Straps (F) on left side of the Punched Strap (E), grain sides up. There should be one punch hole left on the end. (Figure 17)

## Figure 16

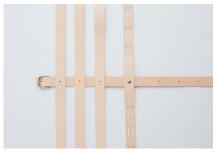




25. Feed D-Ring (K) through Vertical Strap with Punches (D), and fold end back to align punch hole with the closest Horizontal Strap (F). (Figure 18)

26. Set three Medium Rivets (N) in each of the holes to secure the 3 Horizontal Straps (F) to the Vertical Strap with Punches (D). (Figure 19)

## Figure 18





27. Flip body over, so flesh side is up. Weave the 3 Horizontal Straps (F) through oblong punch holes of Vertical Strap with Slits (E). (Figure 20)

28. Weave the other side of Horizontal Straps (F) through the other set of oblong punch holes. (Figure 21)

## Figure 20



## Figure 21



29. Place your bottle into harness structure. Tighten Horizontal Straps (F) to fit your bottle. **Pro Tip: Don't worry about completely tightening. The next steps will fully secure bottle.** (Figure 22)

30. Check to see if harness is centered on bottle by laying bottle on its side and ensuring center rivet is centered at the bottom of the bottle.

31. Pull one of the three Horizontal Straps (F) under Punched Strap (D). Use awl to mark hole and where the strap ends. Repeat for each Horizontal Strap (F). (Figure 23)

## Figure 22





32. Trim each strap and punch marked holes. (Figures 24-25)

33. Align punch holes on all three straps. Dry fit Rivets. There should be one Large (O) and two Medium (N). The Large Rivet (O) will be used at the top hole to attach the D-Ring (K). Do not set yet. (Figures 26-27)

## Figure 24



Figure 26







Figure 27



34. Put water bottle back in harness structure.

35. Wrap opposing Horizontal Straps (F) over the dry fitted rivets. Mark strap end with awl. (Figure 28)

36. Before letting strap go, mark where the strap overlaps rivet hole with awl. Repeat for the other two straps. (Figure 29)

37. Punch marked holes. (Figure 29)







38. Align Strap End Template (J) over strap. Mark and trim strap ends. (Figures 30-31)

39. Remove dry fitted rivets and add in the left side on top. Refit Rivets (O & N). Do not set just yet.

40. Feed D-Ring (K) through Vertical Strap with Punches (D), and fold end back to align punch hole with the closest Horizontal Strap (F). Add in to the dry fitted rivet set. (Figures 32-33)

41. Set Large Rivet (O) at the top to secure the D-Ring (K). Set Medium rivets in remaining two holes.

## Figure 30



Figure 32



Figure 31







42. Feed each end of Shoulder Strap (G) through a Keeper (H) so that the keeper staples are on the flesh side. (Figure 34)

43. Secure Button Stud (L) on flesh side of Strap (G).



44. Loop each end of the Shoulder Strap (G) through each D-Ring (K) and adjust to desired length. (Figure 35)

45. Push button stud through keyhole punch on both sides. Slide Keepers (H) down. (Figure 36)

## Figure 35



## Figure 36



# CONGRATULATIONS, YOU'VE MADE A WATER BOTTLE HOLDER!



\* Images are for construction purposes only. Colors may vary.

# LEVEL UP YOUR SKILLS WITH TANDY

## **HOW TO BURNISH EDGES**

Burnishing consists of sealing edges with product by using hand tools and burnishing agents. The burnishing process gives smooth and clean edges to any veg-tan project.

I. Rub emery board gently across the edges so that the leather is even and smooth. Dust off. (Figure 1)

2. Use a cotton swab to gently seal the edges with gum tragacanth burnishing agent. Let air dry. (Figure 2)

- 3. Burnish edges with a wood slicker. (Figure 3)
- 4. Repeat steps 2 and 3 until you reach desired outcome.

#### Figure 1

Figure 2

Figure 3



## HOW TO BACKSTITCH

The backstitch is a securing stitch that goes over existing stitches to prevent unravelling.

1. At the final hole in the stitch line, reverse the direction of the needles and saddle stitch back through the last 2-3 holes in the line. If the stitch line meets back where the line began, simply saddle stitch over the first 2-3 stitches without reversing the direction of the needles to lock them in. Pro Tip: If needles are difficult to pull through stitches, use a pair of needle nose pliers to help pull the needles through.

2. To finish, pull the remaining thread to the less visible side of the work. Snip off the excess, and tuck it into the last hole.

## Figure 1









#### HOW TO SADDLE STITCH

The saddle stitch is a strong stitch that is made up of two independent stitches that lock together. This allows the stitches to hold even if a stitch is broken.

I. Holding one threaded needle in each hand, begin saddle stitching by inserting one needle into the first hole of stitch line. Pull the needle and thread through the hole until there are equal lengths of thread on either side. (Figure 1) **Pro Tip: Use** *a stitching horse to secure your pieces in place and allow for easier sewing.* 

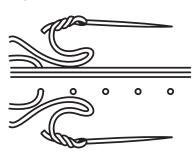
2. With one needle in each hand, begin weaving the needles through the next stitch hole, one needle at a time. It is important to be consistent with your motions. Always start each stitch with the same hand. We will start with the left-hand needle for each stitch for these instructions. Push the left needle through next hole in your stitch line.

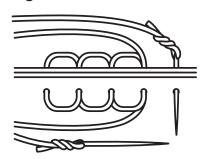
3. Once the left needle is through the hole, insert your right-hand needle through the same hole, being sure to pull the left thread back to avoid piercing it with the right needle. Pull each side all the way through the hole and give the thread a gentle tug to tighten up the stitches. (Figure 2)

*Optional:* If your stitch holes are large enough, you can insert your needles in the same hole at the same time. Cross your needles into an "X" as you push them through the hole. Be sure to always place the same side needle on the top and bottom for each stitch, then pull the needles through and tighten up the thread with a gentle tug.

4. Repeat Steps 3-4 until you reach the end of the stitch line, starting with the same side needle for each stitch. Be sure to give the thread a light tug at the end of each stitch to keep even tension.

## Figure 1





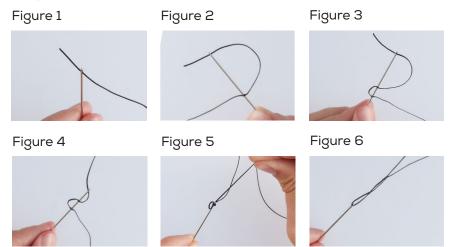
## HOW TO THREAD NEEDLES

- I. Cut your thread to 5 times the length of the stitch line.
- 2. Feed one end through the eye of one needle. (Figure 1)

3. Take the point of the needle and push it through the longer portion of the thread. Repeat and push needle through again. (Figures 2-3)

4. Pull long side of thread toward the eye of the needle to form a knot. (Figure 4-6)

5. Repeat steps 2-4 on the other side with other needle.



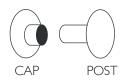
## HOW TO SET RIVETS

I. Place rivet post into correctly sized anvil divet. (Figure 2)

2. Place pattern piece(s) onto rivet post and cover post with rivet cap. (Figures 3-4)

3. Line up corresponding setter tool. Hit firmly with a mallet a few times to set the rivet. (Figures 5-6)

#### Figure 1











## HOW TO SET SNAPS

I. Place cap into corresponding size divet on the Anvil. Place pattern piece onto the cap. (Figures 2-3)

2. Cover cap with socket. Line up corresponding setter tool. Hit firmly with a mallet a few times to set the snap. (Figures 4-5)

3. For the other side, place post onto a flat anvil. Place leather onto the post, and cover post with stud. (Figures 6-7)

4. Line up corresponding setter tool. Hit firmly with a mallet a few times to set the snap. (Figures 8-9)

Figure 2

#### Figure 1



#### Figure 4

Figure 7





## Figure 8



Figure 3



Figure 6





## HOW TO EDGE LOCK STITCH

An edge lock stitch joins two separate pieces of material over a flat edge to prevent unraveling and can be used at the start or end of a saddle stitch.

#### To start with an edge lock stitch,

I. Insert one of the threaded needles through the first hole. Pull the needle through until there are equal lengths of thread on either side.

2. Take one needle and make a loop that goes around the outside edge of leather. Insert opposing needle through the opposite side to close the loop. (Figure 1)

3. Resume stitching as normal. (Figure 2)

**To finish with an edge lock stitch,** reverse needles and place them back through the last stitch hole making a loop that goes around the outside edge of leather.

Another example of an edge lock stitch can be used when all edges are flush and the thread loop goes around the outside edge of all layers of leather. (Figure 3)

#### Figure 1



#### Figure 2



Figure 3





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