Erecting a Yurt Locker Yurt

It is so simple that you can't make a mistake… Maybe.

Updated August, 2012

First a little background

- I have been working with this yurt company for more than 2 years at this time, (August 2012).
- They have been building these Kazak style yurts for 24 years. These are not the same as the Mongolian style yurts.
- This yurt was erected starting about 4:20 pm and was completed about 5:30 pm. All the laces and all the buckles were not connected, just a few to hold it together, but it was habitable at that time.
- We were suppose to erect a new yurt 40m2 yurt at a new owners site, but he had called in 3 days concurrently saying he was not ready. This yurt was dug from storage and erected for my benefit.

- The frame was new; cut, bent, welded and painted that morning.
- The cover was 10 years old and dirty from being stored in the basement of the factory.
- The Kazak ethnic decorations were faded, so the factory sewed new decorations on it just for this occasion.
- There were two seams that had split about a foot. The materials not damaged but these had not been not repaired the time we erected the yurt. It would be an easy repair.

The ‘colorful’ **inner wall liner** was sewn that morning. The Kazaks love bright colors. I prefer something a little more low key. Off-white muslin is the Yurt Locker standard color. Tell me when you order if you prefer the Kasak style liner.

You will also notice we built it inside the factory, not some beautiful countryside setting, but I am thankful the factory made such a huge effort to accommodate me.

The yurt we erected in these pictures is a 16.5’ yurt with standard 5’4” walls. It is model name: 20 m2, (about 214 square feet of living space)

The Basic Steps

Read this first. It is going to sound complicated but the pictures will make it easier to understand.

- Lay out and organize parts and count them.
- Use the provided nuts and bolts to assemble the wall and door (just finger tighten the bolts) into two halves.
- Stand up one half, shape it into a semicircle. Stand up the other half the same way and bolt them together creating a roughly circular shape.
- Carry the **tono** inside the circlular frame and assemble two **rafters** onto the **tono** pins that stick like fingers from the **tono**.

- Put a person holding each of these two **rafters**, pick up the **tono**, add a third **rafter** on a pin so that the **tono's** circle is divided into about 3 equal parts, all three should then lift the **tono** to plug the **rafters** in the top of the **wall support sockets**.
- Count the **tono** pins and the **wall support sockets** between the **rafters** to make sure your **rafters** are in the correct **wall support sockets**. Adjust if needed.
- One by one put the remaining rafters on the **tono** pins and into the **wall support sockets**. The **tono** and the bent **rafters** will force the **wall supports** to create a round shape to plug in, so you may have to move **wall supports**, adjust them so that the walls are round and vertical.

- Using the provided wrenches, tighten all bolts. Make sure the **batwing door** swings true and square before you tighten the bolts around it.
- Next station a brave soul on top of the **tono**. You can push the **insulated top cover** up the **rafters** to him using broomsticks or some other non-pointy stick. He will have to pull as well, then position himself in the hole in the **insulated top cover**, while he is sitting on the **tono**.
- Having adjusted the **tono hole** of the **insulated top cover** over the **tono**, he can then carefully slide down on the **rafters**, (unless he can fit through the **tono**).

- You could install the **inner wall liner** at this point as the factory did, but I think I would save it for last.
- Center the **insulated wall cover** over the **batwing door** next. Hang the **insulated wall cover** with the hooks that are sewn on the inside of the **insulated wall cover**. Attach the adjusting straps around the door opening.
- Hang the second half of the **insulated wall cover**. Attach the adjusting straps, and use them to get the tightness you want on the walls. Firm but not overly tight.
- Roll the edge of the **insulated top cover** up and lace the top of the **insulated wall cover** to the **insulated top cover** using the grommets and strap loops provided.

- Roll the edge back down and tighten the “purse string” rope to grip the top of the walls.
- Tie an overhand knot in the purse string so you will pull evenly on these ropes, not on the grommets.
- You may peg down the rope that is left from the purse strings to help secure the yurt.
- You may choose to install the **insulated door cover** on the top and one side. It will make the **batwing door** less drafty. Fold back one side and step in.
- There is also an **insulated tono cover** and ropes to attach to metal D-rings that are installed in each corner. The ropes allow you to cover and uncover the **tono** as the weather allows to provide the ventilation and protection as you desire. You can tie these ropes to pegs as well.
- Move in and get set up!

Now for the Illustrated Version

< The **tono**. You probably have noticed the **tono pins** that are sticking out like fingers, or short spider's legs.

< **Wall supports**. They are roughly 5 feet long on the standard height models, or about 6.5 feet on the "Tall Wall" models.
There are tabs welded near the top on the **rafter socket** end, of the **wall support**, (the top), and another set of tabs welded about 8 inches above floor level (the bottom).

Rafters, They should be bent on one end where they plug into the **rafter socket** on the **wall supports**. On this model of yurt the **rafters** are about 7.5 feet in length. >

Wall support spacers. They are made of angle steel and are stiff and strong. On this model of yurt they are just over 2 feet long. >

This is the top, or **rafter socket** end of the **wall support** . Notice the tabs are welded closer to the end, and closer to one side. Looking from the end, they look a little like this: _o_ The tabs go toward the outside of the yurt. >

The **batwing door**. The doors are not beautiful, but they are tough, easy to install and hard to damage. They allow the yurt to be locked for some level of security . For greater security, talk to the Yurt Locker. >

The Walls

< 1) Lay out the parts. ½ the **wall supports** on each side of a line. The bottom of the **wall supports** go towards the line. Place a **wall support spacer** at the top and the bottom of each of the **wall supports**.

< 2) This is the bottom of the **wall support**; one side of the wall spacer has been bolted in place. The end not shown has the **wall support socket** for the **rafters**.

When it is all laid out, start bolting the **wall support spacers** on the floor side (the outside of the finished yurt) of the **wall supports**, the angle turns up, or toward the inside of the yurt.

3) Bolt it together, **a wall support spacer** bolted to the tab at the top and to the tab at the bottom of the **wall supports**. At this time they don't need to be even finger tight. They need to be flexible. >

4) The **bat wing door** fits into the alignment of the **wall supports**, just like any of the **wall support spacers**. You can choose to put it in the middle or at the end of a wall, just bolt it in the wall close to your intended door placement. >

5) Standing up half of the wall by lifting the **wall supports**. We had lots more help than was needed. 3 people can do it easily on this size yurt. >

6) Making a semi-circle from one half of the **wall supports**. It should stand alone at that point. >

Finishing the walls and rafters

< 7) Now stand up the other half and just 4 bolts will put the two halves together, completing the circle of the **wall supports**.

< 8) This it the **wall support socket**. The bent end of the **rafter** will slip into this open end of the **wall support**. The tabs are closer to the outside of the **wall supports**. Notice the **wall spacer bracket**, the angle turns to the inside of the yurt.

9) Put 3 rafters on roughly 1/3 spacing on the **tono pins**, and lift the **tono** up slip the rafter ends into place. Move the **wall supports** in or out to fit the bent end of the **rafters** into the **wall support socket** on the top end of the **wall support**. >

10) You can see here, a **rafter** slipped in the **wall support socket**. >

11) Next, count the pins and **wall support sockets** between the **rafters** to make sure the numbers will match. >

12) Pin the rest of the **rafters** and put them into the remaining **wall support sockets**. You may have to adjust the **wall supports** slightly to get the **rafters** to slide into place, but with the **rafters** fully in place, they should enforce a perfect circular space. >

< 13) Square the **door** until it swings properly and tighten its bolts. Next go around the whole frame and tighten all the bolts. Two wrenches are provided, but a couple people with ratchets or electric nut drivers will make fast work of it. Make them good and tight.

< 14) My friend Bye (in the blue shirt) and one of the workers are tying up the **inner wall liner**. This is what appears as the inside wall. Bright isn't it? Did I mention Kazak's liked bright colors?

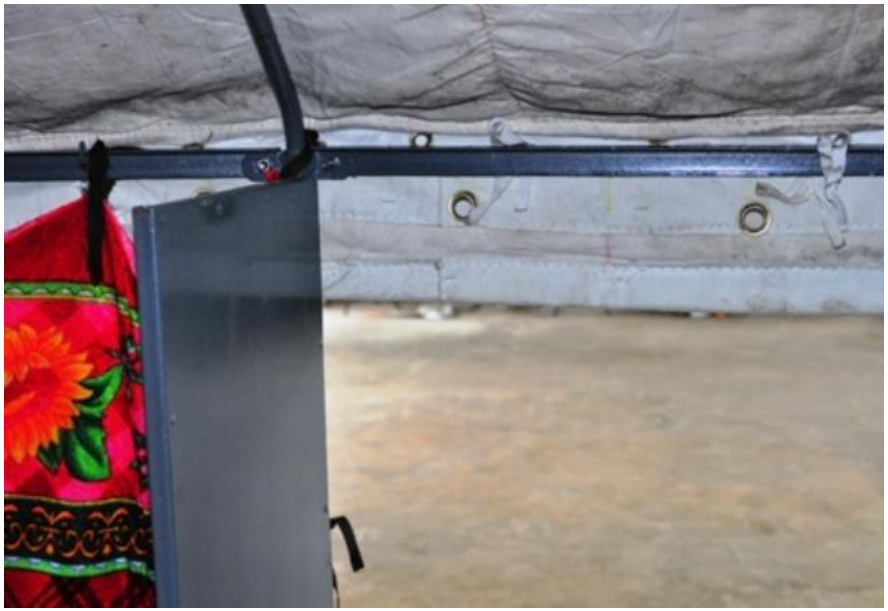
15) One of the guys climbed on **tono** and is ready to deal with placing and centering the **insulated top cover** in place. >

16) The crew using broomsticks help the **insulated top cover** move up the **rafters**. It will be a little heavy, it is insulated, and the larger the yurt, the heavier the cover. Be sure to have enough helpers on hand. >

17) Now it is almost in place, and will take only a little adjusting at this point. I untied the **inner wall liner** so I could take pictures. >

18) The hole in the **insulated top cover** needs to be centered over the outer ring of the **tono**. It isn't hard to do once it is on top of the **rafters**. >

Putting up the walls.



< 19) One of the two **insulated wall coverings** has the cutout for the door. It may or may not have windows, depending upon how it was ordered. Flip the edge of the **insulated top cover** up and then center the door cutout over the door and hang it from the upper **wall support spacers** with the metal **wall support hooks** that are sewn on the inside.

< 20) Walk along the rest of the wall hanging the wall hooks on the upper **wall support spacers**. Notice the **wall support hooks** should be on the inside of the **insulated wall covering** and hanging from the outside of the frame. From outside you won't see the hooks. From the inside the hooks are hidden by the **inner wall liner**.

22) There are straps and buckles both inside and on the outside to adjust the tension of **insulated wall cover** halves. >

21) Additional straps and buckles are used to attach the **insulated wall cover** to the **batwing door** frame supports. >

23) Use the outside straps and buckles in addition to inside ones to adjust the wall tension until it is firm, but not drum head tight. Now your insulated wall covers are in place and adjusted. Moisture and heat will make the walls naturally tighten or sag a little at times. >

24) Next roll up the edge of the **insulated top cover**; this will expose the metal grommets made on the **insulated top cover** and wall loops sewn on the **insulated wall covers**. >

Finishing Touches

< 25) Start by the door and using the woven tape, lace the grommets and loops together. These laces are firm, but not overly tight. Roll the **insulated top cover** edge back down when you have finished the lacing. Note: I have seen more than one style from this company.

< 26) This is the “purse string” that tightens the bottom edge of the **insulated top cover** around the top of the **insulated wall covers**. Tighten it after you finish the laces. I don’t have a picture showing the completed lacing and the purse string.
Tie the purse string tightly, then you can use the ends to anchor the yurt if you like. You want to be pulling on the knot and not pulling on the grommets.

28) You can buckle the **insulated batwing door cover** if you like. It is designed to stop drafts from blowing in, and the doors open inward, so it does not get in your way too much. >

27) Ok, it is a dirty old yurt, it isn't tight because not all the straps and buckles are fastened, and the whole thing needs scrubbing and some minor adjustments for completion, but in 70 minutes we had the yurt in good enough shape so that you could begin to move into it.

29) The yurt package comes with an **insulated tono cover** with the ropes and the tie loops to help you place and adjust it. It helps adjust the light and ventilation in the yurt. >

30) Some undone straps and buckles by the window. The outside window cover should roll up, with the material inward, toward the yurt so it will shed rather than collect water. The bug screen stays in place, but the inside plastic window can be zipped down. >

< 31) The **batwing door** opening on this yurt is 26 ½” wide. Yurt Locker yurts have 36” wide doors.

< 32) The height of the doorway in the **Standard Wall Yurt** is 57 3/8” to the canvas. The steel door frame is well above the canvas.

< 34) Bye tells me he is the metric equivalent of 5’10” tall. You can see the door and wall height for comparison.

< 33) The lower door frame looks like a good place to trip. You could devise some kind of lip or frame to help you remember to be careful. At this point we did not finish fastening all the straps and buckles. It was up enough for the factory guys.

35) Top door frame is a little low, but it is canvas, so it does not hurt if you forget. Kazak tradition says you should bow as you enter a doorway, show respect. Please remember this is the **Standard Wall Yurt**, not the **Tall Wall Yurt**. >

36) Bai's friend (I don't remember his name), is 6'2" tall and is standing close to the outside wall.
At 6' tall, I can sit in a straight backed kitchen chair with its back against the wall and stand up without touching my head to the **insulated top cover**.>

The Epilogue

- Ok, it is dirty and it has some stains, it has had some water damage from the past, it has been poorly stored. I could still live in it, no problem.
- Kazaks traditionally vented their smoke through the tono. In the past they used an open fire but now they use stoves. **I don't suggest an open fire** in your yurt. A stove jack through a side wall is a Yurt Locker option.
- I think this yurt looks pretty good for its age and poor storage. A bit of detergent and some scrubbing and a few minutes along a couple seams with a sewing awl and it would be good for a long time.
- Ask me/tell me if there is any part of this you don't understand. I have more pictures, or maybe I missed something important. Contact www.YurtLocker.com to order, or for more information.