# Assembling Instruction - Triton Ladoga 1 advanced

Allround touring and sea kayak





#### Assembling Instruction - Triton Ladoga 1 advanced

Dear Customer.

At first: please do not be alarmed by the extent of these instructions!

The assembling instructions are very detailed and almost every step is illustrated. You will notice that it will help you at one point or another. After a few times and with a little practice you won't need the manual anymore.

You have purchased a *Ladoga 1 advanced* - a powerful kayak with extremely high stability and stiffness, which was awarded among others by "Kanu-Magazin" with the "Price Tip", but was also honorably mentioned by "Kajak-Magazin". The *Ladoga 1 advanced* has been one of the best-selling folding single kayaks in Europe in recent years.

The body stiffness results from the high structural performance of the frame; on the other hand the hull is designed to fit the frame perfectly. This is why the first few setups are power intensive, since frame and skin have to adapt to another (the hull expands a bit while/after assembling the first couple of times). The assembling gets then easier each time.

Please take your time for the first assembling to learn about the special features. It is strongly recommended following the single steps in the instructions carefully! Otherwise, it will be unnecessarily difficult. After some practice you will build it up without much hassle in about 25 minutes. Always keep in mind that no one is born a master, and the individual assembling has to be learned for each folding boat.

If you have any questions, your dealer will be happy to assist you. Otherwise you can also contact us directly - as an importer (call: 0049/731/4007675, mail: kontakt@out-trade.de).

As a "reward" of the assembling you get a fast and stiff touring kayak, which is characterized by excellent handling and a strong hull!

Please also consider the instructions of "Care and Accessories" at the end of this manual. Especially if you are planning extensive tours in salt water, which requires special care! We hope you enjoy your new kayak!

#### **Brief overview of assembling:**

- 1. Assembling bow: Attach 4x stringer elements without lock,
  - Attach 4x stringer elements with lock and install cross rib #1 and #2
- 2. Assembling stern: Attach 4x stringer elements without lock,
  - Attach 4x stringer elements with lock and install cross rib #5
- 3. Insert bow and stern into the hull and tension the keel (Therefore take the stringer elements out the skin!)
- 4. Insert the coaming (do not close it, yet!)
- 5. Close the stringer
- 6. Close the coaming
- 7. Install and mount cross rib #4 and suspension seat, then install cross rib #3
- 8. Install half cross rib in front of the seat and mount the rudder system
- 9. Inflate sponsons

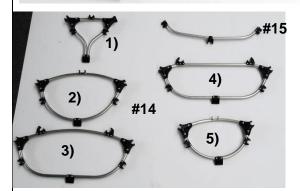
This short description should provide a general overview of the basic structure of assembling. For the first few times please consider the following detailed assembly instructions and read them carefully before you get going:

#### 1) Overview parts:

Please first get <u>all</u> parts out the pack and spread them out. It is best to sort the parts according to the content list.









**#1** 8x Stringer element with lock:



#2 9x Stringer element without lock

#3 2x Ridge bar (identical)

#4 4x Keel rod

**#5** Bow segment

#6 Stern segment

#7 4x Coaming rod
(wider diameter than stringer element,
of which 2x have D-rings)
2x short coaming rod
(comes connected!)

#8 2x Sliding sleeve, large

#9 4x Sleeves, small

#10 Seat and back

#11 Rudder system

#12 Repair kit

#13 Cover for loading hatch

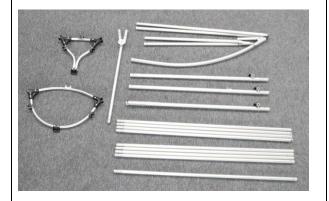
**#14**5x Cross rib (numbering see left)

#15 1x Half cross rib

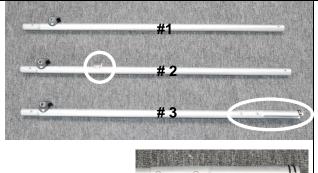
#16 Hull with deck

#17 Backpack and waist belt (no pic)
The waist belt is a wide, padded strap that you can slip into the backpack, if you carry the boat for a longer time on your back.

#### 2) Assembling Bow



- 1x Bow segment
- 5x Stringer element without lock
- 4x Stringer element with lock
- 1x Keel rod #1 (see picture below)
- 1x Keel rod #2 (see picture below)
- 1x Keel rod #3 (see picture below)
- 1x Ridge bar
- 1x Cross rib #1
- 1x Cross rib #2 with steel hooks on top



enlarged half-pipe

Explanation and differentiation of the keel rods for the bow:

- Keel rod #1 has "only" one clip just before the tapered end of the rod.
- Keel rod #2 additionally has a riveted pickup for the sail (circled on the left)
- Keel rod #3, has a riveted half-tube (circled), which is later required to connect with the stern element

First clip a stringer element without lock on each of the five elements at the bow segment. The stringer elements will lock in place by the snap buttons on the bow segment.

Then clip a stringer element with lock on the four side stringer elements (not to the middle one).

Then clip the keel rods to the keel element of the bow segment in the right order (#1, #2, #3 – see explanation above).



Then take cross rib #1.

The cross ribs are inserted all in the same way:

First place the cross rib diagonally...





...then slide the clip onto the "counter clip" on the keel rod and slowly right it up.



The cross rib is now locked and firmly connected to the pickup element.



Then clip the four sideward stringer elements into the C-clips of the cross rib. The centered stringer element (arrow) simply place on top of the cross rib. This will use as an extension to the ridge bar

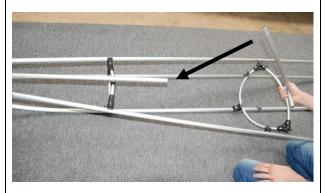


Take cross rib #2 and one of the two identical ridge bars.



Hook the cross rib to the ridge bar. Join the cross rib diagonally with the hooks pointing forwards to the openings at the ridge bar.

(see left images)





Now, the cross rib #2 is simultaneously (the wider of two cross ribs with steel hooks at the upper end) connected to the keel rod. The ridge bar is inserted into the extension.

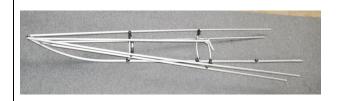
The connection of the cross rib #2 and the insertion of the ridge bar into the extension element have to be done simultaneously.

(If you have clipped the extension into the upper clip of cross rib #1, release it again for the step above!)

Then clip the extension element on the upper clip of cross rib #1

Ensure, that **all snap buttons face** <u>inside</u> the kayak:





The bow element is fully assembled and should result in the image on the left.

#### **Summarized procedure:**

Clip 4 stringer elements without lock, then 4 Stringer elements with lock into the side ward pickup elements at the bow segment.

Clip on keel rods #1, #2 and #3.

Install one **stringer element without lock** on the middle pickup element. Then install **cross rib #1**.

Attach then the ridge bar to cross rib #2 and then install and push simultaneously onto the **upper stringer element**.

# 3) Assembling stern



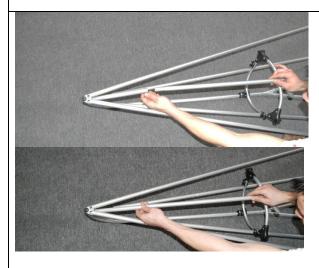
You need:

Stern segment

- 4x Stringer element without lock
- 4x Stringer element with lock
- 1x Keel rod #4 with spherical end
- 1x Cross rib #5 (the smaller of two cross ribs with steel hooks)
- 1x Ridge bar

First clip a stringer element without lock on each of the four side ward elements at the stern segment, then one Stringer element with lock.

The remaining keel rod #4 with the spherical end is placed to the keel of the stern segment.

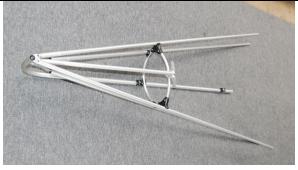


The cross rib #5 is inserted similar to the cross rib #2.

Which means, that the remaining ridge bar is joined to the cross rib and then, while pushing it to the pickup element on the keel rod, it is inserted to the pickup at the stern segment.

Then clip the stringer elements to the cross rib #5.

Ensure, that **all snap buttons face** <u>inside</u> the kayak!



The stern element is fully assembled and should result in the image on the left.

# 4) Inserting bow and stern element in the skin, and tension of the boom



Spread out the hull.

Open the hatch at the bow and open the waterproof roll closure.

Then insert the bow element into the hull.

Make sure to place the frame centered.



Now push the frame **flatly** into the bow.

It is best to kneel inside the boat and take the frame at the back ends of the stringer elements.



Try to orientate at the ridge bar and the reinforcement strip on the deck to insert the frame centrally. Also, a look through the hatch can help.



Push the frame firmly into the bow as far as you can.

Make sure, the two pickup elements at the ridge bar are pointing towards the center of the kayak (this is where the coaming is inserted later on).

On the left you see the insertion of the stern section.



Proceed likewise with the stern. Push the frame **flat** into the bow and as far as you can.



Make sure to take the filling tubes for the sponsons between the stringer elements.

Now bow and stern are getting connected and tensioned. In order to do this, remove the split pin on keel rod.

And then proceed exactly as described.

Please read through the following section before going to work:

The keel rod of the bow with its hemispherical end is mounted to the riveted half-tube of the stern's keel rod.



That means pulling up stern and bow ("stern over bow"). Hang keel rod #4 **under** keel rod #3 (with the riveted half-tube) and gently push the whole thing down.





Prior to this operation take the stringer elements **out the skin**. This will relieve the keel and will avoid any blockage.

You can pull up bow and stern without any problem. The skin can flex and the frame won't jam.

(You see this very clearly on the two pictures on the left).

If the stringer elements are not removed from the skin, an unfortunate pressure on the keel rods is created, which may damage them.



After joining the keel rods, slowly press them both down.

Put the stringer elements back into the hull (see the left picture).



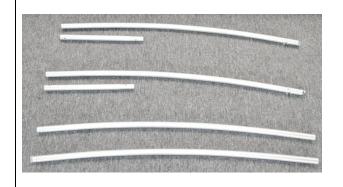
Slowly press the aligned keel rods down. Especially the first time a high tension occurs. This is normal and will decrease with further assembling.



Then insert the split pin back through the holes and wrap the rubber around it.

Before the stringer elements now are connected, insert the coaming into the coaming channel.

Connecting the coaming must necessarily be done after connecting the stringer!



For the coaming you need:

4x coaming rod (2 of them with D-ring)



2x short coaming rod (come connected)



Connect one of the bent rods with D-ring with one of the short rods.

Insert these with the short part ahead into the coaming channel. And that into the part with the largest gap in the rear third (see the left picture).

Then slide this first half of the coaming through the channel to the front.

It is much easier to push the coaming rod "from the inside of the boat", rather than "from above". This creates a "straight line" and prevents jamming inside the channel. Thus, the rods are much easier to push into the channel!



Then connect the coaming rod with the pickup element in the bow by sliding it onto it. Just pull the flexible part a bit toward you, so that there is also a straight line. Thus the connection of coaming rod is much easier.

Proceed likewise on the other side.

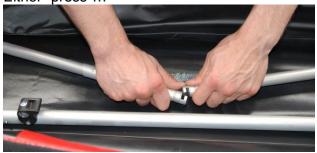


Then push the remaining two coaming rods without D-ring into the channel towards the stern and connect them to the flexible pickup elements in the stern.

Attention: Do not connect the coaming in the middle, yet! First the stringer elements have to be connected in the next step:



Either "press"...



...or "pull" from the other side:



# **Connecting the Stringer elements** (Read first):

The connecting of the stringer elements is a process that you have to learn. Especially the precise alignment of the "locks" to another is crucial to prevent jamming. This connection technology adds a lot to the overall stiffness of the boat. For one, you "press" the excess length, the two stringer element with lock of bow and stern have, "into the boat length" and on the other hand, this connection is stable, both on pressure and on tension.

A huge advantage on the water!

**Note**: You can connect the stringer elements both by pushing them into the boat, or by pulling them into the boat from the opposite side.

Give it a try, what suits you better.

Work your way from the bottom up. Start with the lower stringer elements. First take one of the four small sleeves and slide it onto one of the stringer element (see top picture).

Then take the stringer element (as in the second picture) and align the locks exactly to another.

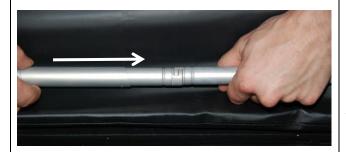
The mouths have to "look at each other". This is crucial, otherwise it will be unnecessarily difficult.

Push both stringer elements towards the boat's center. This requires some strength (especially for the first few times). The process can also be done - as mentioned earlier - from the other side, by pulling the stringer elements to yourself.



Then connect the two locks. You must align the locks exactly to another, in order to prevent jamming.

Do the whole process - especially the first few times - as slowly as possible and without hassle.



Let the stringer then slowly come back and make sure that the two **elements form a straight line**.

This is very important, too. Once there is no straight line, the stringer elements will jam.

If they form a straight line, you still can adjust some little imprecision, by pressing with your thumb.

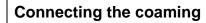


Then slide the sleeve over the connection.

Repeat the process with the remaining 3 stringer elements, from bottom to top.

Especially at the beginning you have to practice a bit until you find the right way.

But then it is surprisingly easy. The gratitude is an extremely stiff and strong connection that contributes a lot to the performance of your folding kayak.





Take one of the two bigger sleeves and put it onto the coaming rod.

The connection of the coaming rods is done similarly to the connection of the stringer.



Align both locks exactly on another. Then press the rods slightly downward or upward - depending on how the connection works better.

Snap the locks and return rods. Then slide the sleeve over it.

#### Important:

Again, it is crucial to form a straight line and then slide the sleeve over the locks. You can also pull the two rods towards you, if you want to do it from the other side.

#### NOTE:

Some customers proceed in reverse order, connecting stringer and coaming.

That is, they connect bow and stern, THEN connect the stringer elements first and insert the coaming afterwards and connect it.

Try that variation, if you want and proceed how it suits you best!

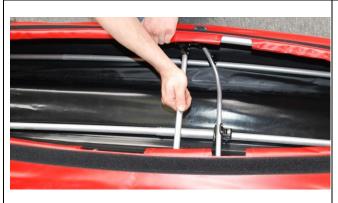
# 5) Installation of Cockpit cross ribs and installation of the hanging seat



Take cross rib # 4 to the hand and join it diagonally as usual.

Support a little by pulling the cross rib towards the pickup element on the keel rod with the other hand. Grab under the keel and press the cross rib downwards. (see picture)

Then take out your hand again, while righting up the cross rib.



Raise the cross rib slowly.

Please make sure, not to snag the cross rib on the coaming channel



Then clip the stringers into the cross rib's clips.

Best is to grab the cross rib from the opposite side with your thumb above the clip.

Then press the stringer from the bottom into the clip.

(see picture)

Thus you get the best leverage and need less power.



On the left the "ideal move".

You can also try to clip the two top stringer into the clips while raising the cross rib. It is not that easy, but it will save you from pushing up the stringer later on.

Please do not clip in the coaming, yet!





After installing the cross rib #4 reopen the connection of the two stringer closest to the keel.

Slide the sleeve and disconnect the locks. This will be easy now, because there isn't anymore pressure to it.

Then take the seat. The filling tube to inflate the seat always faces forwards, towards the bow.



Insert the stringer elements into the seat and pull the seat backwards. Grab from behind to the front part of the seat (as on the picture below).

Pull as far until the seat is located approximately 10 cm in front of the cross rib #4.

(you will find out, what position suits you best quickly).



This process takes a bit more strength, when the boat is new. The seat extends a bit, so it gets easier each time. It might help to slightly press the two stringer elements inside the boat, in order to place the seat easier.

Then reconnect the two stringer elements.



Now insert cross rib #3. Proceed in the same way as with cross rib #4.



Clip all the stringer into the cross rib's clips

Please use the "ideal move", as shown with cross rib #4



Then clip the coaming into the big top C-clips of the cross ribs.



If this is a bit difficult, "push" the coaming with your palm over the cross rib. (as shown in the left picture)



Now take the remaining half cross rib. This is to support the seat and ensures that the weight of the paddler does not press on the stringer element. It is therefore **essential to install!** 

First place he half cross rib diagonally and then push it into position! Otherwise is not possible to install.

Clip one end onto the stringer right in front of the seat. Place the other end diagonally on the lower stringer and a bit further to the front.

Then slide the half cross rib into position.



The half cross rib then sits directly in front of the seat.



Now install the back rest.

Lead the upper strap through the D-ring on the coaming....



...then lead it back through the clip



Set the desired position.



The lower straps are fixed on the cross rib behind the seat.



Now inflate the sponsons by using the filling tubes. These are then connected with the connecting pipe. By connecting the tubes you will provide a pressure equalization, which guarantees an ever symmetrical underwater hull.

It is best to inflate the sponsons with the mouth. When you notice, that it gets harder to inflate, it is usually the right pressure.

# 6) Deck lining / Deck / Rudder system



In the repair kit you will find the deck lining and other parts for the rudder system.



The deck lining can be installed in different ways.

One suggestion is, to form a loop, lead it through the middle D-ring and lead the two ends back through the loop. (as shown in the left picture)

But you are free to attach the lining as you want.



The deck is attached by Velcros. Begin at the top of the cockpit fix it

The left picture shows the front tip of the deck.

#### Instructions for disassembling:

- For the disassembling proceed in the same way as for assembling but in reverse order.
- Open the hatches and slip them outward, so that the rods won't get caught up in it.
- Should it be a little hard especially in the beginning to pull out the frame from the hull, just **grab through the hatch and remove the first cross rib** (in the reverse direction, as you raised it). **Thus you will reduce the tensions a lot**. Now it should be easy to take out the frame.



- **Alternatively** tap with your flat hand on the front of the lower part against the bow. Here, the boat should lay flat and the stern should already be taken out of the skin. Especially the first 2-3 times, it may be that the bow frame sits very tight in the skin. By tapping the frame should slightly loose itself from the skin and it then gets easier to pull out. You can also grab through the front hatch and slightly loosen the frame.

### Folding the hull

Before folding the skin, spread it out flatly. Then fold it lengthwise, and fold the top and the stern to the middle.



Then fold it from the stern again about to one length of the pack:



#### Care, Safety, Storage and further Information:

#### Salt water:

If you want to use your boat in the brackish water / salt water, the treatment of the rod with "CorroFilm" is absolutely recommended. Ask your local Dealer for it!

CorroFilm can be sprayed onto (and if necessary also in) the rods and generates a transparent, dry protective film which protects the aluminum perfectly against the "attack" of salt water. Ask your dealer about CorroFilm. Clean the rods and boat skin after exposing it to salt water (e.g. after the tour) with sufficient fresh water.

**Important**: If the boat is to be stored for a longer time, take the air out of the sponsons! A folding boat should be built up and removed several times a year.

Ensure that the boat skin and rods are dry when packed and stored.

The boat skin is resistant to salt water. Nevertheless, it should also be cleaned with fresh water after the return from a tour in brackish or salt water. Especially when sand or small stones can cause high abrasion.

Always wear a life jacket when you are using your boat on the Waters! Beware of rapid weather changes!

#### Repairing and reinforcements

The PVC / PU skin can easily be repaired in case of abrasion, a small crack or hole with the included repair kit.

- Cut a strip of PVC / PU material from the supplied repair kit. Make sure that it extends generously over the damaged area.
- Round the corners of the strip with scissors or similar.
- Clean the strip and the area to be patched. Both must be free of grease.
- It is best to roughen the spot with a fine sandpaper, (but in a pinch it will also work without it)
- Apply a thin layer of glue on both surfaces
- Wait for the glue to dry slightly, then press the patch firmly onto the area to be repaired.

If you can make the repairing at home: Let the glue dry for an hour, place the patch on the spot, and gently warm both with a hot air dryer. Then push the patch firmly onto the hull.

**On tour:** The canoe can be reused shortly after repair. However, the adhesive and protective effect still improves within 12 hours when the adhesive is completely dried. The sponson can be repaired in the same procedure as described above. Please pay attention to a clean, grease-free surface.

Your kayak is equipped with a keel strip. However, you can apply additional reinforcements at much stressed points. Depending on the type of use, other keel strips or partial reinforcements of the skin are recommended. If necessary, ask for it in specialized dealers.

#### More useful accessories for your boat:

- Spray skirt Nylon
- Spray skirt Thermal PU (instead of neoprene)
- Hatch cover for the cockpit
- Sea sock Thermal PU
- CorroFilm corrosion protection spray
- · Sailing system with outrigger
- Flat earth Sails
- Round light "Navisafe"



For more information about your and other products, sources of supply and downloads at any time:

